

10 PM Current Affairs Quiz Compilation

December, 2020

*THIS IS A MONTHLY DOCUMENT CONTAINING ALL MCQS ASKED IN 10 PM
CURRENT AFFAIRS QUIZ BY FORUMIAS.*

10 PM Compilation for the Month of December, 2020

GOVERNMENT SCHEMES/INITIATIVES

Q.1) Consider the following statements regarding the **Minimum Support Prices (MSP)**:

1. Government fixes Minimum Support Price (MSP) on the basis of recommendations of Indian Council of Agricultural Research.
2. The inter-crop price parity along with price trends in market are considered before recommending MSP.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. Government fixes minimum support prices (MSPs) of 22 mandated crops including paddy, wheat, for every agricultural year and fair & remunerative price (FRP) for sugarcane on the basis of recommendations of **Commission for Agricultural Costs & Prices (CACP)**, after considering the views of State Governments and Central Ministries/Departments concerned & other relevant factors.

In addition, MSP for Toria and De-Husked coconut is also fixed on the basis of MSPs of Rapeseed & Mustard and Copra respectively.

Statement 2 is correct. While recommending MSPs, CACP considers important factors like **cost of production, overall demand-supply conditions, domestic and international prices, inter-crop price parity**, terms of trade between agricultural and non-agricultural sectors, the likely effect on the rest of the economy, besides ensuring rational utilization of land, water and other production resources and a minimum of 50 percent as the margin over cost of production in case of MSPs and reasonable margins over cost of production in case of FRP.

Q.2) Consider the following statements regarding the **Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020**:

1. It allows intra-state and inter-state trade of farmers' produce outside the physical premises of market yards run by market committees formed under the state APMC Acts.
2. It prohibits state governments from levying any market fee on farmers and electronic trading platforms for trade of farmers' produce conducted in an 'outside trade area'.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

Agricultural markets in India are mainly regulated by state **Agriculture Produce Marketing Committee (APMC)** laws. APMCs were set up with the objective of ensuring fair trade between buyers and sellers for effective price discovery of farmers' produce.

The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Ordinance, 2020

--Allows intra-state and inter-state trade of farmers' produce outside: (i) the physical premises of market yards run by market committees formed under the state APMC Acts and (ii) other markets notified under the state APMC Acts.

10 PM Compilation for the Month of December, 2020

--Such trade can be conducted in an 'outside trade area', i.e., any place of production, collection, and aggregation of farmers' produce including: (i) farm gates, (ii) factory premises, (iii) warehouses, (iv) silos, and (v) cold storages.

--It permits the electronic trading of scheduled farmers' produce (agricultural produce regulated under any state APMC Act) in the specified trade area.

--It prohibits state governments from levying any market fee, cess or levy on farmers, traders, and electronic trading platforms for trade of farmers' produce conducted in an 'outside trade area'.

Q.3) Which of the following is/are grounds for exemption from disclosure of information under the **Right to Information Act, 2005**?

1. Information received in confidence from foreign Government
2. Trade secrets or intellectual property
3. Personal information the which has no relationship to any public activity or interest

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Section 8 of the Right to Information Act provides for exemption from disclosure of information. Some of the grounds for exemption are:

--information including commercial confidence, trade secrets or intellectual property, the disclosure of which would harm the competitive position of a third party, unless the competent authority is satisfied that larger public interest warrants the disclosure of such information

--information received in confidence from foreign Government

--information which relates to personal information the disclosure of which has no relationship to any public activity or interest, or which would cause unwarranted invasion of the privacy of the individual unless the Central Public Information Officer or the State Public Information Officer or the appellate authority, as the case may be, is satisfied that the larger public interest justifies the disclosure of such information.

Q.4) Which of the following is/are objectives of the **KVIC's Honey Mission**?

1. Enforce nationally acceptable standards of Good Beekeeping Practices (GPB) in the country.
2. Develop a network of quality master trainers in the field of beekeeping for imparting Good Beekeeping / Apicultural Practices.
3. Offer a passage for overseas market for hive products.

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: The **KVIC's Honey Mission** aims to create an end-to-end implementation framework for beekeeping skill development, which provides employment opportunities and income generation to agriculturists, beekeepers rural & urban unemployed youth.

10 PM Compilation for the Month of December, 2020

- Enforce nationally acceptable standards of Good Beekeeping Practices (GPB) in the country.
- Develop a network of quality master trainers in the field of beekeeping for imparting Good Beekeeping / Apicultural Practices.
- Offer a passage for overseas market for hive products.
- Enable pathways from novice beekeepers to viable commercial beekeeping by handholding to credit linkages.
- Promote convergence and co-ordination between all the stakeholders of beekeeping in India.

Q.5) Consider the following statements regarding the **Target Olympic Podium Scheme (TOPS)**:

1. Under the Scheme, the Department of Sports identifies athletes who are potential medal winners in 2024 Olympics.
2. The Mission Olympic Cell is a dedicated body created to assist the athletes who are selected under the TOP Scheme.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The **Target Olympic Podium Scheme** is a flagship program of the Ministry of Youth Affairs and Sports which is an attempt to provide assistance to India's top athletes. The Scheme looks to add a premium to the preparations of these athletes so that they can win Olympic medals in 2020 and 2024 Olympics.

Under the Scheme, the Department of Sports shall **identify athletes** who are potential medal winners in 2020 / 2024 Olympics. The idea of the Scheme is to also keep an eye in the future and fund a Developmental Group of Athletes who are medal prospects for the Olympic Games in Paris in 2024 and Los Angeles Games in 2028.

Statement 2 is correct. The **Mission Olympic Cell** is a dedicated body created to assist the athletes who are selected under the TOP Scheme. The idea of the MOC is to debate, discuss and decide the processes and methods so that the athlete receives best assistance. The MOC also focuses on selection, exclusion and retention of athletes, coaches, training institutes that can receive TOPS assistance.

Q.6) Consider the following statements regarding the **Global Innovation & Technology Alliance (GITA)**:

1. It has been launched by the European Union.
2. GITA extends financial support in form of Grants to promote industrial R&D and Innovation.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. **Global Innovation & Technology Alliance (GITA)** is a "not-for-profit" Section-8 Public Private Partnership (PPP) company promoted jointly by

10 PM Compilation for the Month of December, 2020

the Technology Development Board (TDB), Department of Science & Technology (DST), Government of India and the Confederation of Indian Industry (CII).

Statement 2 is correct. The mandate of GITA includes:

--GITA extends financial support in form of Grant/ Conditional Grant to promote industrial R&D, Innovation, Technology Acquisition and International S & T collaborative efforts.

--GITA catalyzes innovation and empowers ideas by offering specialized Information, matchmaking, IP protection etc. in the areas of technology design and IPR management.

--GITA is involved in Technical, Financial, Strategic policy research and recommendation to industry, research institution, State & Central Government and offers global networking platforms.

--GITA is mandated to facilitate the implementation of various innovative and revolutionary scientific and technological industrial research and development projects worldwide.

Q.7) Consider the following statements regarding the **Rights of Persons with Disabilities Act, 2016**:

1. Every child with benchmark disability between the age of six to eighteen years shall have the right to free education
2. The act recognizes intellectual disability as a limitation both in intellectual functioning and in adaptive behavior.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Section 31 of the Rights of Persons with Disabilities Act, 2016** provides that notwithstanding anything contained in the Rights of Children to Free and Compulsory Education Act, 2009, every child with benchmark disability between the age of **six to eighteen years** shall have the right to free education in a neighborhood school, or in a special school, of his choice.

Statement 2 is correct. The statute recognizes **Intellectual disability**, a condition characterized by significant limitation both in intellectual functioning (reasoning, learning, problem solving) and in adaptive behavior which covers a range of every day, social and practical skills, including—

---“**specific learning disabilities**” means a heterogeneous group of conditions wherein there is a deficit in processing language, spoken or written, that may manifest itself as a difficulty to comprehend, speak, read, write, spell, or to do mathematical calculations and includes such conditions as perceptual disabilities, dyslexia, dysgraphia, dyscalculia, dyspraxia and developmental aphasia;

---“**autism spectrum disorder**” means a neuro-developmental condition typically appearing in the first three years of life that significantly affects a person's ability to communicate, understand relationships and relate to others, and is frequently associated with unusual or stereotypical rituals or behaviors.

Q.8) Consider the following statements regarding the **Green Charcoal Hackathon**:

1. It is being organised by the NITI Aayog.
2. It aims to clean the air by eliminating farm fire and producing renewable energy out of the agri-residue.

Which of the statements given above is/are correct?

- a) 1 only

10 PM Compilation for the Month of December, 2020

- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. To fast-track the carbon footprint reduction technology development, **NTPC Vidyut Vyapar Nigam (NVVN) in partnership with EESL** organises technology challenge named as Green Charcoal Hackathon.

Statement 2 is correct. The purpose of the event is to leverage the innovative Indian mind to bridge the technology gap, with the prime objective to **clean the air by eliminating farm fire**, producing renewable energy out of the agro residue, to promote local entrepreneurship, and to increase the income of the farmers.

Q.9) The government provides **Minimum Support Prices (MSPs)** for which of the following crops?

1. Soyabean
2. Mustard
3. Groundnut

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Government fixes Minimum Support Prices (MSPs) for 22 mandated agricultural crops on the basis of the recommendations of the **Commission for Agricultural Costs & Prices (CACP)**, after considering the views of State Governments and Central Ministries/Departments concerned and other relevant factors.

The 22 mandated crops, for which MSP is being announced by the government for the last three years, include **14 Kharif crops** viz. paddy, jowar, bajra, maize, ragi, arhar, moong, urad, groundnut, soyabean, sunflower, sesamum, nigerseed, cotton and **6 Rabi crops** viz. wheat, barley, gram, masur (lentil), rapeseed & mustard, safflower and two commercial crops viz. jute and copra (milling and ball copra).

In addition, MSP for toria and de-husked coconut are also fixed on the basis of MSPs of rapeseed & mustard and copra respectively.

Q.10) Which of the following cost(s) is/are considered by the **Commission for Agricultural Costs and Prices (CACP)** while recommending the Minimum Support Prices?

1. Cost of Seeds and fertilizers
2. Value of unpaid family labour

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: CACP considers **A2+FL and C2 costs** while recommending MSP. CACP reckons only A2+FL cost for return. However, C2 costs are used by CACP primarily as benchmark reference costs (opportunity costs) to see if the MSPs recommended by them at least cover these costs in some of the major producing States.

10 PM Compilation for the Month of December, 2020

'A2' covers all paid-out costs directly incurred by the farmer — in cash and kind — on seeds, fertilisers, pesticides, hired labour, leased-in land, fuel, irrigation, etc. 'A2+FL' includes A2 plus an imputed value of unpaid family labour. 'C2' is a more comprehensive cost that factors in rentals and interest forgone on owned land and fixed capital assets, on top of A2+FL.

Q.11) Consider the following statements regarding the **Contempt of Courts Act, 1971**:

1. The Act allows the High Court to punish for contempt of subordinate courts.
2. It mandates for the consent of Attorney or Solicitor General for initiating a case of criminal contempt.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The superior courts (Supreme Court and High Courts) derive their contempt powers from the Constitution. The **Contempt of Courts Act, 1971** additionally allows the High Court to punish for contempt of subordinate courts.

Statement 2 is correct. The Contempt of Courts Act, 1971, lays down the law on contempt of court. **Section 15** of the legislation describes the procedure on how a case for criminal contempt of court can be initiated.

In the case of the Supreme Court, the **Attorney General or the Solicitor General**, and in the case of High Courts, the Advocate General, may bring in a motion before the court for initiating a case of criminal contempt.

If the motion is brought by any other person, the consent in writing of the Attorney General or the Advocate General is required.

However, when the court itself initiates a contempt of court case the AG's consent is not required. This is because the court is exercising its inherent powers under the Constitution to punish for contempt.

Q.12) Consider the following statements regarding the **Technical Textiles**:

1. These are textile products manufactured primarily for technical performance and functional properties rather than aesthetic characteristics.
2. India is the largest global producer of technical textiles.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. **Technical textiles** are textiles materials and products manufactured primarily for technical performance and functional properties rather than aesthetic characteristics.

Technical Textiles products are divided into 12 broad categories (Agrotech, Buildtech, Clothtech, Geotech, Hometech, Indutech, Mobiltech, Meditech, Protech, Sportstech, Oekotech, Packtech) depending upon their application areas.

Statement 2 is incorrect. **United States of America** is the world's largest producer and consumer of technical textiles having 23% share followed by Western Europe having 22 % share, China having 13% and Japan having 7% share.

10 PM Compilation for the Month of December, 2020

India shares nearly 6% of world market size of 250 Billion USD. However, the annual average growth of the segment is 12%, as compared to 4% world average growth.

Ministry of Textiles has invited proposals for constitution of a dedicated Export Promotion Council (EPC) for Technical Textiles.

The National Technical Textiles Mission has a four year implementation period from FY 2020-21 to 2023-24. Constitution of an Export Promotion Council for Technical Textiles is part of one of the components of the National Technical Textiles Mission.

Q.13) Which of the following is/are part of the **Accessible India Campaign**?

1. Accessibility to schools, medical facilities, and workplaces
2. Transportation System Accessibility
3. Information and Communication Eco-System Accessibility

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Department of Empowerment of Persons with Disabilities (DEPwD) launched Accessible India Campaign (Sugamya Bharat Abhiyan) as a nation-wide Campaign for achieving universal accessibility for Persons with Disabilities (PwDs). It has the following three important components:

--- **Built Environment Accessibility:** Measures should be undertaken to eliminate obstacles and barriers to indoor and outdoor facilities including schools, medical facilities, and workplaces. These would include not only buildings, but also footpaths, curb cuts, and obstacles that block the flow of pedestrian traffic.

--- **Transportation System Accessibility:** Transportation is a vital component for independent living, and like others in society, PwDs rely on transportation facilities to move from one place to another. The term transportation covers a number of areas including air travel, buses, taxis, and trains.

--- **Information and Communication Eco-System Accessibility:** Access to information creates opportunities for everyone in society. People use information in many forms to make decisions about their daily lives. This can range from actions such as being able to read price tags, to physically enter a hall, to participate in an event, to read a pamphlet with healthcare information, to understand a train timetable, or to view webpages.

Q.14) Consider the following statements:

1. The National Biofuel Policy (NBP) 2018 has a target of 20% ethanol blending in petrol and 5% of bio-diesel by 2030.
2. A drop in fuel is one that can be utilized in vehicles without any modifications in the conventional engine systems.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The goal of the **National Biofuel Policy (NBP) 2018** is to enable availability of biofuels in the market thereby increasing its blending percentage.

10 PM Compilation for the Month of December, 2020

An indicative target of 20% blending of ethanol in petrol and 5% blending of biodiesel in diesel is proposed by 2030. This goal is to be achieved by:

- reinforcing ongoing ethanol/biodiesel supplies through increasing domestic production
- setting up Second Generation (2G) bio refineries
- development of new feedstock for biofuels
- creating suitable environment for biofuels and its integration with the main fuels.

Statement 2 is correct. A **drop-in fuel** is a synthetic and completely interchangeable substitute for conventional petroleum-derived hydrocarbons (gasoline, jet fuel, and diesel), meaning it does not require adaptation of the engine, fuel system or the fuel distribution network.

The NBP 2018 defines drop-in fuels as any liquid fuel produced from Biomass, agri-residues, wastes such as Municipal Solid Wastes (MSW), Plastic wastes, Industrial wastes etc. which meets the Indian standards for MS, HSD and Jet fuel, in pure or blended form, for its subsequent utilization in vehicles without any modifications in the engine systems and can utilize existing petroleum distribution system.

Q.15) Consider the following statements regarding the **Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020**:

1. It provides for a farming agreement between a farmer and a buyer prior to the production or rearing of any farm produce.
2. A farming agreement must provide for a conciliation board as well as a conciliation process for settlement of disputes.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The **Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020** provides for a farming agreement between a farmer and a buyer prior to the production or rearing of any farm produce.

The minimum period of an agreement will be one crop season, or one production cycle of livestock. The maximum period is five years, unless the production cycle is more than five years.

Statement 2 is correct. A farming agreement must provide for a **conciliation board as well as a conciliation process** for settlement of disputes. The Board should have a fair and balanced representation of parties to the agreement.

At first, all disputes must be referred to the board for resolution. If the dispute remains unresolved by the Board after thirty days, parties may approach the Sub-divisional Magistrate for resolution.

Q.16) What was the mandate of the **Ashok Dalwai Committee**?

- a) Doubling Farmer's Income
- b) Review of Agriculture Produce Marketing Committee (APMC) laws
- c) Reforms in Criminal Laws
- d) Electoral Reforms

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: The Union Government had constituted an inter-ministerial committee headed by **Ashok Dalwai** to prepare a blueprint for **doubling farmers' income by 2022**. The Committee submitted its final report to the Government in September 2018.

It recommended to place agricultural marketing in the Concurrent list and a greater private sector participation in agri-marketing and logistics. It suggested that farmer producer and village producer organisations (FPO/VPO) could play a critical role in integrating small and marginal farmers into the agricultural market system.

Q.17) Consider the following statements regarding **Gramin Agricultural Markets (GrAMs)** initiative:

1. It aims to upgrade the infrastructure of rural haats across the country.
2. Government announced to set up of an Agri-Market Infrastructure Fund for developing and upgrading agricultural marketing infrastructure in Gramin Agricultural Markets.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

Gramin Agricultural Markets (GrAMs) are retail agricultural markets in close proximity of the farm gate that promote and service a more efficient transaction of the farmers' produce across the agricultural sub-sectors, by enabling both direct sales, between the producer and consumer, and aggregation of small produce-lots for subsequent transaction, both of which can occur either physically or online.

Government of India had announced to develop and upgrade existing 22,000 rural haats into Gramin Agricultural Markets (GrAMs). In these GrAMs, physical infrastructure will be strengthened using MGNREGS and other Government Schemes.

Further, the Government announced to set up of an **Agri-Market Infrastructure Fund** with a corpus of Rs. 2000 crore for developing and upgrading agricultural marketing infrastructure in the 22000 Gramin Agricultural Markets (GrAMs) and 585 Agricultural Produce Market Committees (APMCs).

Q.18) Consider the following statements regarding the **National Food Security Act (NFSA)**:

1. It provides for the establishment of the State Food Commissions for the purpose of monitoring and review of implementation of this Act.
2. Two or more States may have a Joint State Food Commission with the approval of the Central Government.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Section 16 of the National Food Security Act, 2013 (NFSA)** provides that every State Government shall, by notification, constitute a State Food Commission for the purpose of monitoring and review of implementation of the Act.

10 PM Compilation for the Month of December, 2020

Statement 2 is correct. Section 18 of the Act provides that the State Government, if considers it necessary, by notification, designate any statutory commission or a body to exercise the powers and perform the functions of the State Commission. **Section 19 provides that two or more States** may have a joint State Food Commission with the approval of the Central Government.

Q.19) Consider the following statements regarding the **Aadi Mahotsav**:

1. It is a tribal craft exhibition having individual tribal artisans, tribal Self Help Groups as participants.
2. It is organised by the Tribal Cooperative Marketing Development Federation of India (TRIFED).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

Aadi Mahotsav is a national tribal festival and a joint initiative of Ministry of Tribal Affairs, Government of India & **Tribal Cooperative Marketing Development Federation of India (TRIFED)** in which individual tribal artisans, tribal SHGs, agencies, organisations working with tribals participate.

It started in 2017 and has held many events all over the country since then. The virtual edition of Aadi Mahotsav- Madhya Pradesh was recently inaugurated.

10 PM Compilation for the Month of December, 2020

POLITY

Q.1) Consider the following statements regarding the **Right to Freedom of Religion**:

1. All persons are equally entitled to freedom of conscience and the right freely to profess, practise and propagate religion.
2. State can make law for throwing open of Hindu religious institutions of a public character to all classes and sections of Hindus.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Article 25(1)** provides that subject to public order, morality and health and to the other provisions of this Part, all persons are equally entitled to freedom of conscience and the right freely to profess, practise and propagate religion.

Statement 2 is correct. **Article 25(2)** states that nothing in this article shall affect the operation of any existing law or prevent the State from making any law—

--regulating or restricting any economic, financial, political or other secular activity which may be associated with religious practice;

-- providing for social welfare and reform or the throwing open of Hindu religious institutions of a public character to all classes and sections of Hindus.

The reference to Hindus is construed as including a reference to persons professing the Sikh, Jaina or Buddhist religion.

10 PM Compilation for the Month of December, 2020

SCIENCE & TECCHNOLOGY

Q.1) Consider the following statements regarding **Coronaviruses**:

1. It is a group of viruses that cause diseases in animals and humans.
2. MERS-CoV was the first ever coronavirus to be discovered.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. **Coronaviruses** are a large group of viruses that cause diseases in animals and humans. They often circulate among camels, cats, and bats, and can sometimes evolve and infect people.

In animals, coronaviruses can cause diarrhea in cows and pigs, and upper respiratory disease in chickens. In humans, the viruses can cause mild respiratory infections, like the common cold, but can lead to serious illnesses, like pneumonia.

Statement 2 is incorrect. Coronaviruses are named for the **crown-like spikes** on their surface. Human coronaviruses were **first identified in the mid-1960s**.

There are currently seven coronaviruses known to infect humans. Four of them cause mild to moderate disease. More specifically, HCoV-OC43, HCoV-HKU1 and HCoV-229E cause common colds, and severe lower respiratory tract infections in the youngest and oldest age groups, while HCoV-NL63 is an important cause of (pseudo) croup and bronchiolitis in children.

The other three cause more severe and even fatal disease and have emerged more recently: **SARS-CoV** responsible for the Severe Acute Respiratory Syndrome (SARS) in 2002, **MERS-CoV** the Middle East Respiratory Syndrome (MERS) in 2012 and **SARS-CoV-2**, identified with a cluster of pneumonia cases in Wuhan, China in late 2019.

Q.2) What is measure by the **Octane Rating/Number**?

- a) Mileage performance of a fuel in non-ideal conditions
- b) Ability of a fuel to resist knocking in an internal combustion engine
- c) Ignition temperature fuels
- d) Amount of volatile content in fuel

Correct answer: B

Explanation: Octane Number/Rating, measure of the ability of a fuel to **resist knocking** when ignited in a mixture with air in the cylinder of an internal-combustion engine. The octane number is determined by comparing, under standard conditions, the knock intensity of the fuel with that of blends of two reference fuels: iso-octane, which resists knocking, and heptane, which knocks readily.

The higher the number, the better the fuel burns within the engine of a vehicle. Higher performance vehicles require fuels with a higher-octane rating.

Indian Oil has launched world-class premium grade Petrol (Octane 100) branded as XP100 in the country recently.

Knocking, in an internal-combustion engine, sharp sounds caused by premature combustion of part of the compressed air-fuel mixture in the cylinder.

Q.3) Which of the following disease(s) have **zoonotic origin**?

1. Lyme disease

10 PM Compilation for the Month of December, 2020

2. COVID-19
3. Brucellosis

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: All of the above diseases have zoonotic origin.

Zoonotic diseases (also known as zoonoses) are caused by germs that spread between animals and people.

Lyme disease is caused by the bacterium *Borrelia burgdorferi* and rarely, *Borrelia mayonii*. It is transmitted to humans through the bite of infected blacklegged ticks. Typical symptoms include fever, headache, fatigue, and a characteristic skin rash called erythema migrans.

All available evidence for COVID-19 suggests that **SARS-CoV-2 has a zoonotic source**. Since there is usually limited close contact between humans and bats, it is more likely that transmission of the virus to humans happened through another animal species, one that is more likely to be handled by humans [World Health Organisation].

Brucellosis is a disease caused by a group of bacteria from the genus *Brucella*. These bacteria can infect both humans and animals. Most commonly, people are infected by eating raw or unpasteurized dairy products.

Q.4) The term '**Long Covid**' have been used with reference to which of the following condition?

- a) People having comorbidities getting infected by SARS-COV-2
- b) People struggling with symptoms for weeks or months after being infected with COVID-19
- c) An infected person not testing negative for COVID-19 after 28 days of being infected
- d) Infection from a mutated SARS-COV-2 virus

Correct answer: B

Explanation: Long Covid is not medically definitive, but a term that describes a portion of the population **struggling with symptoms for weeks or months** after being infected with Covid-19, and not just those who were seriously ill.

The most common feature is crippling fatigue. Others symptoms include: breathlessness, a cough that won't go away, joint pain, muscle aches, hearing and eyesight problems, headaches, loss of smell and taste as well as damage to the heart, lungs, kidneys and gut. Mental health problems have been reported including depression, anxiety and struggling to think clearly.

Q.5) Consider the following statements regarding the **Antimicrobial Resistance (AMR)**:

1. It refers to a phenomenon of human body acquiring resistance to antibiotics.
2. It only occurs in case of the bacterial infection diseases.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: D

Explanation: Both statements are incorrect.

Antimicrobials – including antibiotics, antivirals, antifungals and antiparasitics – are medicines used to prevent and treat infections in humans, animals and plants.

Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites change over time and no longer respond to medicines making infections harder to treat and increasing the risk of disease spread, severe illness and death.

Antibiotic resistance does not mean the body is becoming resistant to antibiotics; it is that bacteria have become resistant to the antibiotics designed to kill them.

Especially alarming is the rapid global spread of multi- and pan-resistant bacteria (also known as “superbugs”) that cause infections that are not treatable with existing antimicrobial medicines such as antibiotics.

The clinical pipeline of new antimicrobials is scarce. In 2019 WHO identified 32 antibiotics in clinical development that address the WHO list of priority pathogens, of which only six were classified as innovative.

Q.6) Which of the following is/are type(s) of **Intellectual Property**?

1. Industrial Designs
2. Music
3. Geographical Indications

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.

Types of intellectual property:

Copyright is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture and films, to computer programs, databases, advertisements, maps and technical drawings.

Patent is an exclusive right granted for an invention. Generally speaking, a patent provides the patent owner with the right to decide how - or whether - the invention can be used by others.

Trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises.

Industrial design constitutes the ornamental or aesthetic aspect of an article. A design may consist of three-dimensional features, such as the shape or surface of an article, or of two-dimensional features, such as patterns, lines or color.

Geographical indications and appellations of origin are signs used on goods that have a specific geographical origin and possess qualities, a reputation or characteristics that are essentially attributable to that place of origin. Most commonly, a geographical indication includes the name of the place of origin of the goods.

Trade secrets are IP rights on confidential information which may be sold or licensed.

Q.7) Consider the following statements:

1. A concussion is a type of traumatic brain injury caused by a blow or jolt to the head.
2. A contusion happens when an injured capillary or blood vessel leaks blood into the surrounding area.

10 PM Compilation for the Month of December, 2020

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. A **concussion is a type of traumatic brain injury (TBI)** caused by a bump, blow, or jolt to the head or by a hit to the body that causes the head and brain to move rapidly back and forth. This sudden movement can cause the brain to bounce around or twist in the skull, creating chemical changes in the brain and sometimes stretching and damaging brain cells.

Statement 2 is correct. A **contusion** happens when an injured capillary or blood vessel leaks blood into the surrounding area. Contusions are a type of hematoma, which refers to any collection of blood outside of a blood vessel. It is a medical term for the common bruise.

Q.8) Consider the following statements regarding the **Cancer Genome Atlas**:

1. It is a catalogue of genetic mutations responsible for cancer developed using genome sequencing.
2. Indian Cancer Genomics Atlas (ICGA) has been developed by the Biotechnology Industry Research Assistance Council (BIRAC).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The **Cancer Genome Atlas** is a catalogue of genetic mutations responsible for cancer, developed using genome sequencing and bioinformatics.

The Cancer Genome Atlas (TCGA) was a joint effort of the National Cancer Institute (NCI) and the National Human Genome Research Institute (NHGRI), which are both part of the National Institutes of Health, **U.S. Department of Health and Human Services**. The project then molecularly characterized over 20,000 primary cancer and matched normal samples from 33 cancer types.

Statement 2 is incorrect. The establishment of an **'Indian Cancer Genomics Atlas (ICGA)'** has been initiated by a consortium of key stakeholders in India led by **CSIR**, Government of India in which several government agencies, cancer hospitals, academic institutions and private sector partners.

Q.9) Which of the following may result in **Vasoplegic syndrome**?

- a) A cardiothoracic surgery
- b) An accident involving fractured leg
- c) Amnesia
- d) COVID-19

Correct answer: A

Explanation: **Vasoplegia** is the syndrome of pathological low systemic vascular resistance, the dominant clinical feature of which is reduced blood pressure in the presence of a normal or raised cardiac output.

10 PM Compilation for the Month of December, 2020

Vasoplegic syndrome is a common occurrence following **cardiothoracic surgery** and is characterized as a high-output shock state with poor systemic vascular resistance. The pathophysiology is complex and includes dysregulation of vasodilatory and vasoconstrictive properties of smooth vascular muscle cells.

Q.10) Consider the following statements regarding the **RT-LAMP**:

1. It can be used as a serological test for viral diagnosis.
2. It is faster than a RT-PCR test for diagnosis of disease.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. It is **not a serological test**. Serologic tests measure the antibody response in an individual.

Loop-mediated isothermal amplification, or LAMP, is an assay that can be used for viral RNA detection. This is a one -step nucleic acid amplification method to multiply specific sequences of RNA of the coronavirus. Here, the RNA is first made into cDNA (copy DNA) by the usual re-verse transcription. Then, the DNA is amplified by the LAMP technique.

Statement 2 is correct. The benefits of **RT-LAMP** are important for the viability of broadscale use of this technology. Chief among these is that amplification of genetic material is done quickly under isothermal conditions, which removes the requirements for a thermal cyclor.

This also allows for higher amplification efficiency, because there is no need to wait for thermal changes, and thus no time is lost. Whereas a traditional PCR can take around 3 to 4 hours, RT-LAMP takes less than an hour. Other benefits include the high specificity and selectivity for the genetic material in question.

Q.11) Consider the following statements regarding the **Giant Metrewave Radio Telescope (GMRT)**:

1. It is set up at Pune by the National Centre for Radio Astrophysics.
2. It has been awarded the Institute of Electrical and Electronics Engineers (IEEE) milestone.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **National Centre for Radio Astrophysics-TIFR** has set up a unique facility for radio astronomical research using the metre wavelengths range of the radio spectrum, known as the Giant Metrewave Radio Telescope (GMRT), it is located at a site about 80 km north of Pune.

GMRT is a very versatile instrument for investigating a variety of radio astrophysical problems ranging from nearby Solar system to the edge of observable Universe.

Statement 2 is correct. **Giant Metrewave Radio Telescope (GMRT)** has become the third Indian scientific facility to be awarded the **Institute of Electrical and Electronics**

10 PM Compilation for the Month of December, 2020

Engineers (IEEE) milestone for its novel engineering, advanced technology and scientific contributions made in the field of radio astronomy.

The previous two Indian contributions, recognised by the world's largest technical professional organisation recognised in 2012, are for the pioneering work done by **Sir JC Bose** to demonstrate the generation and reception of radio waves in 1895, and for the Nobel Prize winning discovery of the scattering of light named "**Raman effect**" by Sir CV Raman in 1928.

The IEEE Milestones programme honours significant technical achievements and excellence for the benefit of humanity found in unique products, services, seminal papers and patents, which have global or regional impact, in all areas associated with IEEE.

Q.12) What is Torrefaction?

- a) Reducing volatile content of coal
- b) Thermal degradation of organic biomass
- c) Conversion of crude oil into refined petroleum
- d) Force of attraction between two moving bodies in space

Correct answer: B

Explanation: Torrefaction is a thermal process to convert biomass into a coal-like material, which has better fuel characteristics than the original biomass. Torrefied biomass is more brittle, making grinding easier and less energy intensive. Compared to fresh biomass, storage of the torrefied material can be substantially simplified since biological degradation and water uptake is minimized.

Torrefaction involves the heating of biomass in the absence of oxygen to a temperature of typically 200 to 400°C. The structure of the biomass changes in such a way, that the material becomes brittle, and more hydrophobic. Although the weight loss is about 30%, the energy loss is only 10%. Main product is the solid, torrefied biomass.

The increasing air pollution due to the burning of **stubble and agro-residue** by local farmers has become a major concern for the country. Torrefaction offers a potential solution for it.

GEOGRAPHY/ENVIRONMENT

Q.1) The **Cyclonic Storm 'Burevi'** is developing in which of the following region?

- a) North Pacific Ocean
- b) Southwest Bay of Bengal
- c) Arabian Sea
- d) South Indian Ocean

Correct answer: B

Explanation: According to the **Cyclone Warning Division of the India Meteorological Department (IMD)**: The Deep Depression over **southwest Bay of Bengal** moved west-northwestwards and intensified into **Cyclonic Storm 'Burevi'**. IMD has issued Cyclone Alert (Yellow) for South Tamilnadu and South Kerala coasts.

Burevi will be the fifth cyclone over the North Indian Ocean this year, after Amphan, Nisarga, Gati and Nivar. The name 'Burevi' has been suggested by Maldives.

Q.2) Consider the following statements:

- 1. Iran is bordered by Caspian Sea in north and Persian Gulf in south.
- 2. Chabahar port is on Gulf of Oman.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Iran** is situated in south-western Asia and borders Armenia, Azerbaijan and Turkmenistan, as well as the **Caspian Sea to the north**, Turkey and Iraq to the west, the **Persian Gulf** and the Gulf of Oman to the **south** and Pakistan and Afghanistan to the east.



Created with love ❤ by ForumIAS- the knowledge network for civil services.
Visit academy.forumias.com for our mentor based courses.

10 PM Compilation for the Month of December, 2020

Statement 2 is correct. **Chabahar Port** is a seaport in Chabahar located in southeastern Iran, on the Gulf of Oman. The Trilateral Transit Agreement (Chabahar Agreement) was signed by the three transport ministers of India, Iran and Afghanistan in 2016.

Q.3) Where is **Arecibo Observatory** located?

- a) Puerto Rico
- b) Venezuela
- c) Mauna Kea
- d) International Space Station

Correct answer: A

Explanation: The **Arecibo Observatory**, also known as the **National Astronomy and Ionosphere Center (NAIC)**, is an observatory in Arecibo, **Puerto Rico** owned by the US National Science Foundation (NSF).

The telescope was built in the early 1960s, with the intention of studying the ionised upper part of Earth's atmosphere, the ionosphere.

Recently the **telescope's 900-ton instrument platform collapsed onto a reflector dish** some 450ft (137m) below.

It came just weeks after officials announced that the telescope would be dismantled amid safety fears, following damage to its support system.

The Arecibo Observatory telescope was one of the largest in the world.

Q.4) The **Brahmaputra River** flows through which of the following region(s)?

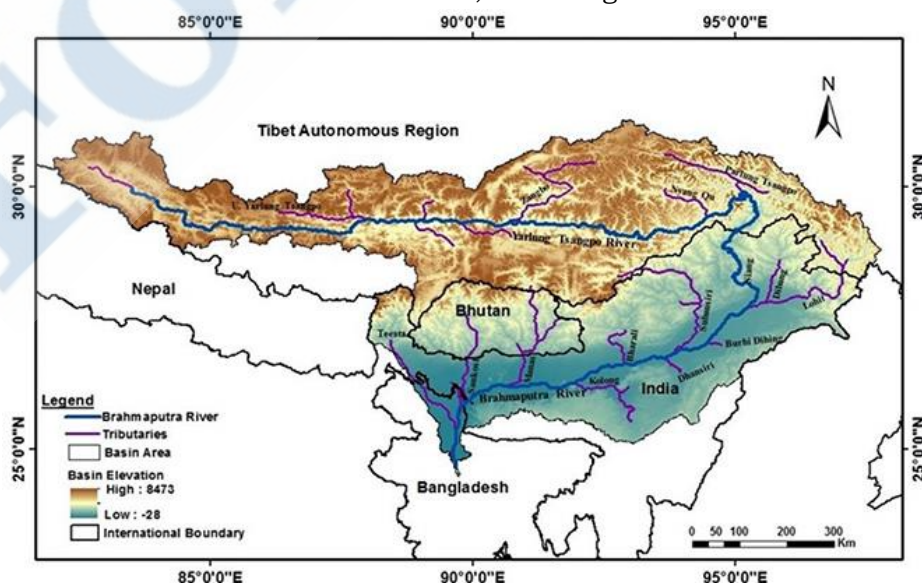
- 1. Bhutan
- 2. Nepal
- 3. China

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 3 only
- d) 1 and 3 only

Correct answer: C

Explanation: The **Brahmaputra River**; Bengali Jamuna, Tibetan Tsangpo, Chinese Yarlung Zangbo Jianga; along its course passes through the Tibet Autonomous Region of China, the Indian states of Arunachal Pradesh and Assam, and Bangladesh.



Created with love ❤ by ForumIAS- the knowledge network for civil services.
Visit academy.forumias.com for our mentor based courses.

10 PM Compilation for the Month of December, 2020

China's media reported recently that authorities have given the go-ahead for a Chinese hydropower company to construct the first down-stream dam on the lower reaches of the Brahmaputra river.

Q.5) Consider the following statements regarding **Kiwi or Chinese gooseberry**:

1. It is a rich source of vitamin B & C.
2. No agroclimatic region in India is suitable for Kiwi farming.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The **Kiwi fruit** has high nutritive and medicinal value. It is a rich source of vitamin B & C and minerals like phosphorus, potassium & calcium.

Statement 2 is incorrect. In India, **Kiwi** is mostly grown in the mid hills of **Himachal Pradesh, Uttar Pradesh, J & K, Sikkim, Meghalaya, Arunachal Pradesh and Kerala.**

Kiwi can be grown in areas experiencing 700-800 chilling hours (no. of hours during which temperature remains at or below 70 C during the winter season).

The plant can be grown at 800-1500 m. above m.s.l. A rainfall of about 150 cm. /year is sufficient. In summer, high temperature (> 350 C) and low humidity may cause scorching of leaves. Sun scald and heat stress are the main problems in its cultivation in lower areas.

Deep, rich, well-drained sandy loam soils are ideal for cultivation of kiwi. A soil pH slightly less than 6.9 results in maximum yield but higher pH upto 7.3 adversely affects the yield due to Mn deficiency.

Arunachal has recently become first state to obtain Organic Certification for Kiwi under Mission Organic Value Chain Development for North East Region (MOVCD-NER).

Q.6) Consider the following statements regarding **Indian Peacock Softshell Turtle**:

1. It is widespread in the northern and central parts of the Indian subcontinent.
2. It is listed as vulnerable species in the IUCN Red List.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

The **Indian Peacock Softshell Turtle** species is confined to India, Bangladesh and Pakistan. It is widespread in the northern and central parts of the Indian subcontinent. It is found in rivers, streams, lakes and ponds with mud or sand bottoms. It is omnivorous, juveniles observed feeding on mosquito larvae and fish, while adults consume snails, earthworms, prawns, fish, frogs, carrion, and vegetation.

It is listed as **Vulnerable species in the IUCN Red List.**

--The species is heavily exploited for its meat and calipee (the outer cartilaginous rim of the shell).

--Threats in the River Ganga to the species are those generic for all large river turtles, including reduction of fish stock, as a result of overfishing, pollution, increase in river traffic, and sand-mining, among others.

10 PM Compilation for the Month of December, 2020

INTERNATIONAL RELATIONS/ORGANISATIONS

Q.1) Consider the following statements:

1. Six states of India share their border with Nepal.
2. SURYA KIRAN is a joint military training exercise between India and Nepal.
3. India and Nepal award each other's Army Chief with the honorary rank of General.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: B

Explanation: Statement 1 is incorrect. **Nepal** shares a border of over 1850 km with **five Indian states** – Sikkim, West Bengal, Bihar, Uttar Pradesh and Uttarakhand.

Statement 2 is correct. A number of defence personnel from Nepal Army attend training courses in various Indian Army training institutions. The 'Indo-Nepal Battalion-level Joint Military Exercise **SURYA KIRAN**' is conducted alternately in India and in Nepal.

Statement 3 is correct. Since 1950, India and Nepal have been awarding each other's **Army Chief** with the honorary rank of General in recognition of the mutual harmonious relationship between the two armies.

Q.2) Which of the site(s) in Asia is/are related to **Buddhism**?

1. Ajina Tepe
2. Termez
3. Sahri Bahlol

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Option 1 is correct. The Buddhist cloister of **Ajina tepe** is situated at a distance of 12 km east from the city of Kurgan-Tiube, **Tajikistan**.

Option 2 is correct. **Termez** is a city in the southernmost part of Uzbekistan. The ancient Termez was one of the largest centres of Buddhism in the region.

Option 3 is correct. **Sahri Bahlol**, is a city and archaeological site located in Mardan District, Khyber Pakhtunkhwa, Pakistan. It is a historical place and it has been included in the UNESCO World Heritage List since 1980. The site has remnants of Buddhist structures.

Q.3) Consider the following statements regarding the **Shanghai Cooperation Organisation (SCO)**:

1. The Regional Anti-Terrorist Structure (RATS) is a permanent body of SCO.
2. English is one of the official languages of SCO.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: Statement 1 is correct. Currently, eight countries enjoy the status of the SCO full members: India, Kazakhstan, China, Kyrgyzstan, Russia, Pakistan, Tajikistan and Uzbekistan; four countries — Afghanistan, Belarus, Iran and Mongolia — have an observer status with the SCO, and six countries — Azerbaijan, Armenia, Cambodia, Nepal, Turkey and Sri Lanka — have a dialogue partner status.

The Organisation has **two permanent bodies — the Secretariat in Beijing (China) and the Regional Anti-Terrorist Structure (RATS) in Tashkent.**

Statement 2 is incorrect. **Russian and Chinese** are the official working languages of the SCO.

It has been reported that India has proposed English to be adopted as an official language at SCO.

Q.4) Which of the following organisation has released the ‘**State of Food and Agriculture 2020**’ report?

- a) Food and Agriculture Organisation (FAO)
- b) International Fund for Agricultural Development (IFAD)
- c) World Health Organisation (WHO)
- d) World Food Programme (WFP)

Correct answer: A

Explanation: The **State of Food and Agriculture**, one of Food and Agriculture Organisation (FAO)’s major annual flagship publications, aims at bringing to a wider audience balanced science-based assessments of important issues in the field of food and agriculture. Each edition of the report contains a comprehensive, yet easily accessible, overview of a selected topic of major relevance for rural and agriculture development and for global food security.

The **State of Food and Agriculture 2020** presents new estimates on the pervasiveness of water scarcity in irrigated agriculture and of water shortages in rainfed agriculture, as well as on the number of people affected.

--Some 520 million of the 1.2 billion people lived in rural areas while 660 million lived in small urban centres surrounded by agricultural areas.

--Nearly half of the 1.2 billion people lived in south Asia, while 460 million lived in east and Southeast Asia.

--In central Asia, west Asia and North Africa, about one-fifth of the population lived in agricultural areas with very high-water shortages or scarcity.

Q.5) Which of the following country(s) is/are member to **Shanghai Cooperation Organisation as well as Regional Comprehensive Economic Partnership**?

- 1. China
- 2. India
- 3. Russia

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 3 only

Correct answer: A

Explanation: The **Regional Comprehensive Economic Partnership (RCEP)** is a proposed agreement between the member states of the Association of Southeast Asian Nations

10 PM Compilation for the Month of December, 2020

(ASEAN) and its free trade agreement (FTA) partners: Australia, Brunei, Cambodia, **China**, Indonesia, Japan, Laos, Malaysia, Myanmar, New Zealand, the Philippines, Singapore, South Korea, Thailand, and Vietnam.

The **Shanghai Cooperation Organisation** currently comprises eight Member States **China**, India, Kazakhstan, Kyrgyzstan, Russia, Pakistan, Tajikistan and Uzbekistan.

Q.6) Consider the following statements regarding the **UN Convention on the Rights of Persons with Disabilities**:

1. It guarantees that States that have ratified the treaty will promote and protect the rights of people with disability.
 2. India is a signatory of this United Nations Convention.
- Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The **UN Convention on the Rights of Persons with Disabilities (CRPD)** is a legally binding international instrument now exists to guarantee that States that have ratified the treaty will promote and protect the rights of people with disability. These States will next work on passing their own national civil rights legislation to improve the lives of people with disability.

Statement 2 is correct. **India is a signatory** of the United Nations Convention on Rights of Persons with Disabilities (UNCRPD). It ratified this Convention on 01-10-2007 in pursuance of Article 35 of the Convention. India submitted its First Country Report on Status of Disability in India in November 2015.

Q.7) Consider the following statements regarding the **Leadership Group for Industry Transition (LeadIT)**:

1. It has been launched by India and Sweden.
 2. It recently organised the Responsible AI for Social Empowerment 2020 summit.
- Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. **LeadIT is launched by India and Sweden along with the World Economic Forum** with the support of Stockholm Environment Institute in 2019 during the United Nations Secretary General Climate Action Summit.

Currently, the Group has membership of 13 countries and 15 companies that are working together to drive the low-carbon transition of energy-intensive industries and achieve net-zero carbon emissions of greenhouse gases by 2050.

Statement 2 is incorrect. The **Ministry of Electronics & IT** is hosted a global virtual summit on Artificial Intelligence (AI) – Responsible AI for Social Empowerment (RAISE) 2020 in October.

Q.8) Which of the following cyclone(s) is/are correctly matched to the countries that recommended their names?

10 PM Compilation for the Month of December, 2020

1. Nivar - Pakistan
2. Burevi - Maldives
3. Amphan - Thailand

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: B

Explanation: In 2000, the **World Meteorological Organisation (WMO)** agreed to start assigning names for cyclones over the North Indian Ocean using a list of names suggested by the countries surrounding the ocean basin.

There are six **regional specialised meteorological centres (RSMCs)** and five regional Tropical Cyclone Warning Centres (TCWCs) across the globe to monitor cyclogenesis, issue advisories and name cyclones.

IMD's RSMC in New Delhi is one among them that provide advisories to 13 countries in the north Indian Ocean basin: Bangladesh, India, Iran, Maldives, Myanmar, Oman, Pakistan, Qatar, Saudi Arabia, Sri Lanka, Thailand, United Arab Emirates and Yemen. RSMC, New Delhi is also responsible for naming cyclones over the Bay of Bengal and the Arabian Sea.

Cyclone Nivar has been named from Iran's suggestions, **Amphan** from Thailand's and the **Burevi** Cyclone has been named from the list submitted by Maldives.

Q.9) Which of the following organisation has released the **World Malaria Report (WMR) 2020**?

- a) World Health Organisation (WHO)
- b) Centers for Disease Control and Prevention
- c) Coalition for Epidemic Preparedness Innovations
- d) Bill & Melinda Gates Foundation

Correct answer: A

Explanation: The **World malaria report**, published annually by **World Health Organisation (WHO)**, provides a comprehensive update on global and regional malaria data and trends. The report tracks investments in malaria programmes and research as well as progress across all intervention areas: prevention, diagnosis, treatment and surveillance.

The **World Malaria Report (WMR) 2020** indicates that India has made considerable progress in reducing its malaria burden. India is the only high endemic country which has reported a decline of 17.6% in 2019 as compared to 2018.

The **Annual Parasitic Incidence (API)** reduced by 27.6% in 2018 compared to 2017 and by 18.4% in 2019 as compared to 2018. India has sustained API less than one since year 2012.

Q.10) Consider the following statements regarding the **International Association of Insurance Supervisors (IAIS)**:

1. It is a constituent of the World Trade Organisation.
2. India's International Financial Services Centres Authority (IFSCA) is a member to the IAIS.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2

10 PM Compilation for the Month of December, 2020

d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. Established in 1994, the IAIS headquartered in Switzerland is a **voluntary membership organization of insurance supervisors and regulators** from more than 200 jurisdictions, constituting 97% of the world's insurance premiums.

It is the international standard-setting body responsible for developing and assisting in the implementation of principles, standards and other supporting material for the supervision of the insurance sector.

Statement 2 is correct. The **International Financial Services Centres Authority (IFSCA)** obtained membership of International Association of Insurance Supervisors (IAIS).

Q.11) Which of the following organisation has published the **World Trade Report 2020**?

- a) United Nations Conference on Trade and Development (UNCTAD)
- b) World Trade Organisation
- c) Organisation for Economic Co-operation and Development
- d) World Economic Forum

Correct answer: B

Explanation: The **World Trade Report (WTR)** is the annual report published since 2003 by the **World Trade Organization**. Each WTR provides an in-depth analysis of an aspect of trends in international trade, trade policy issues and the multilateral trading system.

The 2020 edition of the World Trade Organization's (WTO) World Trade Report analyzes the adoption of government policies to foster digital innovation and technological progress for economies, and explains the WTO's role in this changing context.

It observes that the COVID-19 pandemic has accelerated the uptake of digital innovation and e-commerce and led countries to strengthen policies aimed at boosting growth through innovation and technological upgrading

Q.12) Consider the following statements regarding the **SCO Young Scientist Conclave**:

- 1. The first edition of the conclave was hosted by India.
- 2. Its objectives included to increase collaboration in combating COVID-19 and emerging pandemics through research and innovation.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. As a follow of the fifth session of **Heads of Ministries and Departments of Science and Technology of the Shanghai Cooperation Organisation (SCO)** Member States, at which the huge talent pool of young scientists has been recognized as a potential tool to foster innovative research among the SCO nations, the first SCO-Young Scientists Conclave is being held in India in 2020, as an integral part of SCO Young Scientists Forum (SCO YSF).

Statement 2 is correct. The following thematic areas are chosen to promote collaborative work in Science, Technology and Innovation (STI) among Member States:

- Agriculture and food processing
- Sustainable energy and energy storage

10 PM Compilation for the Month of December, 2020

- Biotechnology and bio-engineering
- Combating COVID-19 and emerging pandemics through research and innovation
- Environmental protection and natural resource management

Q.13) Which of the following organisation has released the **Global Wage Report 2020**?

- a) International Labour Organisation
- b) World Economic Forum
- c) World Trade Organisation
- d) International Trade Union Confederation

Correct answer: A

Explanation: The **Global Wage Report 2020-21 released by the International Labour Organisation** looks at recent trends in wages, the global economic and labour market context, and the impact that the pandemic has had on wages. The report also includes a number of policy recommendations to mitigate the negative impact of the crisis.

--During 2016-19, the global wage growth fluctuated between 1.6% and 2.2%.

--In the first half of 2020, the average wages in two-third countries fell or grew more slowly due to the novel coronavirus disease (COVID-19) pandemic.

--In the remaining one-third of countries — an increase in average wages was observed as the result of a large number of low-paid workers losing their jobs or leaving the labour market.

Q.14) What is the objective of the **SHINE trial**?

- a) Trial for potential COVID-19 vaccines
- b) Shortened treatment for drug-susceptible tuberculosis in children
- c) Trial for diagnostic tests for SARS-COV2
- d) Development of next generation antibiotics to counter Antimicrobial Resistant pathogens

Correct answer: B

Explanation: The study, named **SHINE (Shorter Treatment for Minimal Tuberculosis in Children)**, was sponsored by University College London (UCL).

Children often have mild forms of TB and it is likely that they could be successfully treated for less than the standard 6 months. This would have major advantages for the child, their family and carers, and for overburdened health systems, by reducing the number of clinic visits children need to make to take their drugs.

This study is examined whether a shorter 4-month regimen will be non-inferior to the standard 6-month regimen in terms of unfavourable outcomes at 72 weeks.

The **trial has found no significant differences** between children who received the shortened four-month long treatment compared to those who received the standard six-month treatment plan.

Q.15) Which of the following **dams in Afghanistan** have been/are to be constructed by India's assistance?

- 1. Salma dam
- 2. Shatoot dam
- 3. Kajaki dam

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: Option 1 is correct. **Afghan-India Friendship Dam (AIFD) also known as the Salma Dam**, is a hydroelectric and irrigation dam project located on the Hari River in Chishti Sharif District of Herat Province in western Afghanistan. This project is funded and constructed by the Government of India as a part of the Indian aid project.

Option 2 is correct. India has signed an agreement with Afghanistan for building the **Shahtoot Dam** in Afghanistan. It is a proposed dam in the Kabul river basin, one of the five river basins in Afghanistan.

Option 3 is incorrect. The **Kajaki Dam** is one of the major hydroelectric power dams of Helmand province on Helmand River in southern Afghanistan. It was constructed in 1950s by an American company as part of the Helmand Valley Authority project.

10 PM Compilation for the Month of December, 2020

ECONOMICS

Q.1) Consider the following statements regarding the **Purchasing Managers' Index (PMI)**:

1. It projects market conditions, as viewed by purchasing managers, are expanding, staying the same, or contracting.
2. It is published by the National Statistical Office (NSO) for India.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The **purchasing managers' index (PMI)** is an economic indicator that surveys purchasing managers at businesses that make up a given sector. The purchasing managers' index consists of several different surveys that are compiled into a single numerical result depending on one of several possible answers to each question.

It is an index of the prevailing direction of economic trends in the manufacturing and service sectors. It consists of a diffusion index that summarizes whether market conditions, as viewed by purchasing managers, are expanding, staying the same, or contracting.

Statement 2 is incorrect. For India, the PMI Data is published by Japanese firm **Nikkei** but compiled and constructed by **Markit Economics**.

Q.2) Consider the following statements regarding the **Goods and Services Tax Council**:

1. Union Minister of State for Finance is the ex-officio Vice-Chairperson of the Council.
2. One-half of the total number of Members of the Goods and Services Tax Council constitute the quorum at its meetings.
3. It can recommend any special rate for a specified period, to raise additional resources during any natural calamity.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: B

Explanation: Statement 1 is incorrect. The Members of the **Goods and Services Tax Council** choose one amongst themselves to be the **Vice-Chairperson** of the Council for such period as they may decide.

Statement 2 is correct. **One-half** of the total number of Members of the Goods and Services Tax Council shall constitute the quorum at its meetings.

Statement 3 is correct. The Goods and Services Tax Council's mandate includes that it can make recommendations to the Union and the States on any special rate or rates for a specified period, to raise additional resources during any **natural calamity or disaster**.

Q.3) Consider the following statements regarding the **Municipal Bonds**:

1. It is an equity instrument issued by local governing bodies across the world.
2. Lucknow Municipal Corporation has become the first urban local body in India to issue Municipal Bonds.

Which of the statements given above is/are correct?

10 PM Compilation for the Month of December, 2020

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Statement 1 is incorrect. A **municipal bond is a debt instrument** issued by municipal corporations or associated bodies in India. These local governmental bodies utilize the funds raised through these bonds to finance projects for socio-economic development through building bridges, schools, hospitals, providing proper amenities to households, etc.

Statement 2 is incorrect. The INR 200 crore municipal bonds issue of the **Lucknow Municipal Corporation (LMC)** was listed at Bombay Stock Exchange recently.

With this, **Lucknow has become the 9th city in the country** to have raised municipal bonds, which has been incentivized by the Ministry of Housing and Urban Affairs, Government of India under the mission AMRUT (Atal Mission for Rejuvenation and Urban Transformation).

The **Ahmedabad Municipal Corporation, in 1998**, was the first to make a public offering. Since then, other local bodies in the cities of Nashik, Nagpur, Ludhiana, and Madurai, have also accessed the capital markets through municipal bonds.

10 PM Compilation for the Month of December, 2020

HISTORY/ART/CULTURE

Q.1) Consider the following statements regarding **Dr. Rajendra Prasad**:

1. He was elected as the President of the Constituent Assembly in 1946.
2. He became president of Indian National Congress following the resignation of Subhash Chandra Bose in 1939.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Dr. Rajendra Prasad, son of Mahadev Sahai, was born in Siwan, Bihar on December 3, 1884.

Statement 1 is correct. In September 1946 Prasad was sworn in as minister for food and agriculture in the interim government preceding full independence. From **1946 to 1949 he presided over the Indian Constituent Assembly** and helped to shape the constitution.

He was unanimously elected president in 1950 and, after the first general election (1952), was chosen by an overwhelming majority of the new electoral college; in 1957 he was elected to a third term.

Statement 2 is correct. **Subhash Chandra Bose resigned** from the Congress presidentship after not getting much support within the party in 1939. Dr Rajendra Prasad became the INC President following the resignation of Subhash Chandra Bose.

Q.2) Arrange the following events in chronological order?

1. I.K. Gujral becoming the Prime Minister of India
2. R. Venkataraman becoming President of India
3. Assassination of Prime Minister Indira Gandhi

Select the correct answer using the code given below:

- a) 1-2-3
- b) 3-2-1
- c) 1-3-2
- d) 2-1-3

Correct answer: B

Explanation: Indian Prime Minister **Indira Gandhi was assassinated on 31 October 1984** at her residence in Safdarjung Road, New Delhi.

Ramaswamy Venkataraman, Indian politician, government official, and lawyer who was president of India from **1987 to 1992**.

Inder Kumar Gujral was sworn in as the 12th Prime Minister of India in April, **1997**.

Q.3) Consider the following statements regarding **Operation Trident of Indian Navy**:

1. It was an offensive operation launched by the Indian Navy on Pakistan's port city of Karachi during the Indo-Pakistani War of 1971.
2. The INS Vikrant of Indian Navy took part in the offensive operation.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: Statement 1 is correct. The **4th of December is celebrated every year as the Navy Day**. The day has great significance in the history of the Nation and the Indian Navy, as it marks a decisive victory for India when the missile boats of the India Navy during Operation Trident, in the 1971 India-Pakistan War, successfully fired their missiles onto ships, oil installations and shore defence installations of Pakistan at Karachi.

Statement 2 is incorrect. **INS Vikrant**, also known as Indigenous Aircraft Carrier 1 (IAC-1) is an aircraft carrier under construction by Cochin Shipyard in Kochi, Kerala for the Indian Navy. It is the first aircraft carrier to be built in India. It is expected to be commissioned in **2021**.

Q.4) The **Hornbill festival** is celebrated every year in which of the following State of India?

- a) Nagaland
- b) Kerala
- c) Telangana
- d) Assam

Correct answer: A

Explanation: To encourage inter-tribal interaction and to promote cultural heritage of **Nagaland**, the Government of Nagaland organizes the Hornbill Festival every year in the **first week of December**.

Organized by the State Tourism and Art & Culture Departments, Hornbill Festival showcases a mélange of cultural displays under one roof. This festival usually takes place between the 1st and the 7th of December every year at Naga Heritage Village, **Kisama**.

The Festival is named after the Indian Hornbill, the large and colourful forest bird which is displayed in folklore in most of the state's tribes.

The state has decided to hold the festival on a virtual platform this year.

10 PM Compilation for the Month of December, 2020

GOVERNMENT SCHEMES/INITIATIVES

Q.1) Consider the following statements regarding the **Advertising Standards Council of India (ASCI)**:

1. It is a self-regulatory voluntary organization of the advertising industry in India.
2. The Cable Television Networks (Regulation) Act, 1995 mandates television networks to follow the advertising code laid down by ASCI.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

The **Advertising Standards Council of India**, established in 1985, is a Mumbai based self-regulatory voluntary organization of the advertising industry in India. It seeks to ensure that advertisements conform to its Code for Self-Regulation. Under the **Cable Television Networks (Regulation) Act, 1995** it is mandatory for television networks to follow the advertising code laid down by ASCI.

The Ministry of Information and Broadcasting has issued an advisory asking all private television broadcasters to follow guidelines issued by the Advertising Standards Council of India (ASCI) for advertisements relating to online gaming, fantasy sports etc.

Q.2) Which of the following is the authority for **approval of licenses for Vaccine in India?**

- a) Drug Controller General of India (DCGI)
- b) Indian Council for Medical Research (ICMR)
- c) Serum Institute of India (SII)
- d) National Medical Commission (NMC)

Correct answer: A

Explanation: Under the **Drug and Cosmetics Act**, the regulation of manufacture, sale and distribution of Drugs is primarily the concern of the State authorities while the Central Authorities are responsible for approval of New Drugs, Clinical Trials in the country, laying down the standards for Drugs, control over the quality of imported Drugs, coordination of the activities of State Drug Control Organisations and providing expert advice with a view of bring about the uniformity in the enforcement of the Drugs and Cosmetics Act.

Drug Controller General of India is responsible for approval of licenses of specified categories of Drugs such as blood and blood products, I. V. Fluids, Vaccine and Sera.

Q.3) Which of the following is/are the ground(s) on which central government can regulate the supply of certain food items as per **Essential Commodities (Amendment) Act 2020?**

1. War
2. Extraordinary price rise and
3. Natural calamity of grave nature

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

10 PM Compilation for the Month of December, 2020

Correct answer: D

Explanation: The **Essential Commodities Act, 1955** empowers the central government to designate certain commodities (such as food items, fertilizers, and petroleum products) as essential commodities.

The **Essential Commodities (Amendment) Act 2020** provides that the central government may regulate the supply of certain food items including cereals, pulses, potatoes, onions, edible oilseeds, and oils, only under extraordinary circumstances. These **include war, famine, extraordinary price rise and natural calamity of grave nature**.

Q.4) Consider the following statements:

1. The Gross Value Added (GVA) of fisheries sector forms more than one third share of Agricultural GVA.
 2. The Pradhan Mantri Matsya Sampada Yojana is a completely Central Sector Scheme.
- Which of the statements given above is/are correct?
- a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2

Correct answer: D

Explanation: Fisheries and aquaculture are an important source of food, nutrition, employment and income in India. The sector provides livelihood to about 16 million fishers and fish farmers at the primary level and almost twice the number along the value chain.

Statement 1 is incorrect. The **Gross Value Added (GVA)** of fisheries sector in the national economy during 2018-19 stood at Rs 2,12,915 crores (current basic prices) which constituted 1.24% of the total National GVA and **7.28% share of Agricultural GVA**.

Statement 2 is incorrect. The PMMSY is an umbrella scheme with **two separate Components** namely (a) Central Sector Scheme (CS) and (b) Centrally Sponsored Scheme (CSS). The Centrally Sponsored Scheme (CSS) Component is further segregated into Non-beneficiary oriented and beneficiary orientated sub-components/activities under the following three broad heads:

- Enhancement of Production and Productivity
- Infrastructure and Post-harvest Management
- Fisheries Management and Regulatory Framework

Q.5) Which of the following institution is organizing the **India Mobile Congress 2020**?

- a) Cellular Operators Association of India (COAI)
- b) Telecom regulatory Authority of India (TRAI)
- c) Federation of Indian Chambers of Commerce & Industry (FICCI)
- d) Institute of Electrical and Electronics Engineers (IEEE)

Correct answer: A

Explanation: India Mobile Congress (IMC) 2020 is being organised by the Department of Telecommunications, Government of India, and the Cellular Operators Association of India (COAI). It will be held from 8th to 10th December 2020.

The theme for IMC 2020 is "Inclusive Innovation - Smart, Secure, Sustainable". It also aims to drive foreign and local investments, encourage R&D in the telecom and emerging technology sectors.

IMC 2020 will see the participation from various Ministries, the telecom CEOs, global CEOs, and domain experts in 5G, Artificial Intelligence (AI), Internet of Things (IoT), Data

10 PM Compilation for the Month of December, 2020

Analytics, Cloud and Edge computing, Blockchain, Cyber-security, Smart Cities and Automation.

Q.6) Which of the following is the utility of the recently launched **Co-WIN platform**?

- a) Promotion of Cooperative Societies in rural India
- b) A COVID-19 beneficiary management platform of India
- c) A global vaccine distribution initiative by WHO and Gavi
- d) A labour dispute resolution platform launched by Labour Bureau

Correct answer: B

Explanation: A new digital platform for COVID 19 Vaccination Delivery called '**CO-WIN**' is being used as institutional mechanisms at the level of States, Districts and Blocks that will inspect and supervise the entire process of vaccination.

This user friendly mobile app for recording vaccine data is working as a **beneficiary management platform having various modules**. In the process of forming database of Healthcare Workers, which is in an advanced stage across all States/UTs, data is presently being uploaded on the Co-WIN platform.

Q.7) Consider the following statements regarding the **National Expert Group on Vaccine Administration for COVID- 19 (NEGVAC)**:

- 1. Its mandate is to aid and provide guidance on vaccine selection and vaccine delivery and tracking mechanism.
- 2. It is chaired by the Minister of Health & Family Welfare.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The **National Expert Group on Vaccine Administration for COVID- 19 (NEGVAC)** has also been formed in last August to aid and provide guidance on i) prioritization of population groups, ii) procurement and inventory management, iii) vaccine selection, and iv) vaccine delivery and tracking mechanism.

Statement 2 is incorrect. The **NEGVAC is chaired by Dr. V.K.Paul, Member (Health), NITI Aayog** and co-chaired by the Health Secretary.

Q.8) Which of the following is/are the objectives of the **National Research Foundation (NRF)** proposed in National Education Policy 2020?

- 1. fund competitive, peer-reviewed grant proposals
- 2. formulation and maintenance of norms and standards of technical education in India
- 3. act as a liaison between researchers and relevant branches of government as well as industry

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

10 PM Compilation for the Month of December, 2020

Correct answer: C

Explanation: The research and innovation investment in India is, at the current time, only 0.69% of GDP as compared to 2.8% in the United States of America, 4.3% in Israel and 4.2% in South Korea. The NEP 2020 has proposed setting up of **National Research Foundation (NRF)**.

The primary activities of the NRF will be to:

--fund competitive, peer-reviewed grant proposals of all types and across all disciplines;
--seed, grow, and facilitate research at academic institutions, particularly at universities and colleges where research is currently in a nascent stage, through mentoring of such institutions;

-act as a liaison between researchers and relevant branches of government as well as industry, so that research scholars are constantly made aware of the most urgent national research issues, and so that policymakers are constantly made aware of the latest research breakthroughs; so as to allow breakthroughs to be optimally brought into policy and/or implementation.

AICTE is responsible for formulation and maintenance of norms and standards of technical education.

Q.9) Which of the following institution has released the **Urban Quality of Life (UQoL)** index?

- a) IIT Bombay
- b) NITI Aayog
- c) Ministry of Housing and Urban Affairs
- d) National Institute of Urban Affairs

Correct answer: A

Explanation: **IIT-Bombay researchers have compiled and released an Urban Quality of Life Index** comparing the quality of life in various cities in India and ranked them on the basis of various categories such as water, power, electricity, literacy rate, employment rate among others.

--Mumbai has topped the index followed by Delhi, Kolkata and Chennai.

--The index has factored in gender parity; Chennai is the most women-friendly city and Patna the least.

Q.10) Consider the following statements regarding the **PM-WANI**:

1. It aims to provide public Wi-Fi service through Public Data Offices (PDOs) spread across the country.
2. A nominal license fee is to be charged for providing Broadband Internet through these public Wi-Fi networks.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The Union Cabinet has given its approval for the proposal of DoT for setting up of **Public Wi-Fi Networks by Public Data Office Aggregators (PDOAs)** to provide public Wi-Fi service through Public Data Offices (PDOs) spread across length and breadth of the country to accelerate proliferation of Broadband Internet services through Public Wi-Fi network in the country.

10 PM Compilation for the Month of December, 2020

This Public Wi-Fi Access Network Interface will be known as PM-WANI. PM-WANI ecosystem will be operated by different players:

--Public Data Office (PDO): It will establish, maintain, and operate only WANI compliant Wi-Fi Access Points and deliver broadband services to subscribers.

--Public Data Office Aggregator (PDOA): It will be an aggregator of PDOs and perform the functions relating to Authorization and Accounting.

--App Provider: It will develop an App to register users and discover WANI compliant Wi-Fi hotspots in the nearby area and display the same within the App for accessing the internet service.

--Central Registry: It will maintain the details of App Providers, PDOAs, and PDOs. To begin with, the Central Registry will be maintained by C-DoT.

Statement 2 is incorrect. There shall be **no license fee** for providing Broadband Internet through these public Wi-Fi networks.

Q.11) Consider the following statements regarding the **Universal Service Obligation Fund (USOF)**:

1. It has a statutory status under the Indian Telegraph Act.
2. The Submarine Optical Fibre Cable Connectivity between Mainland (Kochi) and Lakshadweep Islands (KLI Project) is to be funded by the USOF.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Apart from the higher capital cost of providing telecom services in rural and remote areas, these areas also generate lower revenue due to lower population density, low income and lack of commercial activity. Thus, normal market forces alone would not direct the telecom sector to adequately serve backward and rural areas.

Therefore, most countries of the world have put in place policies to provide Universal Access and Universal Service to ICT.

Statement 1 is correct. The **New Telecom Policy - 1999 (NTP'99)** provided that the resources for meeting the Universal Service Obligation (USO) would be raised through a 'Universal Access Levy (UAL)', which would be a percentage of the revenue earned by the operators under various licenses. The **Indian Telegraph (Amendment) Act, 2003 giving statutory status to the Universal Service Obligation Fund (USOF)** was passed by Parliament in December 2003.

Statement 2 is correct. The Union Cabinet has given its approval for Provision of Submarine Optical Fibre Cable Connectivity between Mainland (Kochi) and Lakshadweep Islands (**KLI Project**). The Project would be funded by Universal Service Obligation Fund.

Q.12) Consider the following statements regarding the **Poshan Abhiyaan**:

1. It aims to reduce the level of stunting, under-nutrition, anemia and low birth weight babies.
2. The Ministry of Women and Child Development (MWCD) is the nodal ministry for implementing POSHAN Abhiyaan.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2

10 PM Compilation for the Month of December, 2020

d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. Government is implementing the **POSHAN Abhiyaan** since December, 2017 to address the problem of malnutrition in the country.

There are a number of schemes directly/indirectly affecting the nutritional status of children (0-6 year's age) and pregnant women and lactating mothers. In spite of these, level of malnutrition and related problems in the country is high. POSHAN Abhiyaan through robust convergence mechanism and other components would strive to create the synergy.

The programme through the targets will strive to reduce the level of stunting, under-nutrition, anaemia and low birth weight babies. It will create synergy, ensure better monitoring, issue alerts for timely action, and encourage States/UTs to perform, guide and supervise the line Ministries and States/UTs to achieve the targeted goals.

Statement 2 is correct. The **Ministry of Women and Child Development (MWCD)** is nodal ministry for implementing POSHAN Abhiyaan.

Q.13) Consider the following statements regarding the **Consumer Protection Act 2019**:

1. It covers offline as well as online transactions for sale/purchase.
2. The Central Consumer Protection Authority can impose penalties on violations consumer rights, unfair trade practices, and misleading advertisements.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. A consumer is defined under the **Consumer Protection Act 2019** as a person who buys any good or avails a service for a consideration. It does not include a person who obtains a good for resale or a good or service for commercial purpose. It **covers transactions through all modes including offline, and online** through electronic means, teleshopping, multi-level marketing or direct selling.

Statement 2 is correct. **Central Consumer Protection Authority (CCPA)** is to regulate matters related to violation of consumer rights, unfair trade practices, and misleading advertisements.

CCPA will carry out the following functions, including: (i) inquiring into violations of consumer rights, investigating and launching prosecution at the appropriate forum; (ii) passing orders to recall goods or withdraw services that are hazardous, reimbursement of the price paid, and discontinuation of the unfair trade practices, as defined in the Bill; (iii) issuing directions to the concerned trader/ manufacturer/ endorser/ advertiser/ publisher to either discontinue a false or misleading advertisement, or modify it; (iv) imposing penalties, and; (v) issuing safety notices to consumers against unsafe goods and services.

The CCPA has referred the recent complaints of Honey adulteration to FSSAI.

Q.14) Which of the following institution is organizing the **India Water Impact Summit (IWIS) 2020**?

- a) National Mission on Clean Ganga
- b) Central Water Commission
- c) NITI Aayog
- d) Rally for Rivers Association

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: The 5th India Water Impact Summit (IWIS), organized by the National Mission for Clean Ganga and Center for Ganga River Basin Management and Studies (cGanga) began on 10th December with the theme of comprehensive analysis and holistic management of local rivers and water bodies with focus on Arth Ganga - river conservation synchronized development.

The Centre for Ganga River Basin Management and Studies (cGanga) was established at the Indian Institute of Technology, Kanpur (IITK) in 2016. The Centre is a Centre of Excellence for data collection, the creation and dissemination of knowledge and information for the sustainable development of Ganga River Basin.

Q.15) Consider the following statements regarding the **PM-WANI initiative**:

1. Public Data Offices (PDO) will establish, maintain, and operate only WANI compliant Wi-Fi Access Points and deliver broadband services to subscribers.
2. App Provider will develop an App to register users and discover WANI compliant Wi-Fi hotspots in the nearby area.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

Union Cabinet has recently given its approval for the proposal of DoT for setting up of **Public Wi-Fi Networks** by Public Data Office Aggregators (PDOAs) to provide public Wi-Fi service through Public Data Offices (PDOs) spread across length and breadth of the country to accelerate proliferation of Broadband Internet services through Public Wi-Fi network in the country. There shall be no license fee for providing Broadband Internet through these public Wi-Fi networks.

Salient Features:

--This Public Wi-Fi Access Network Interface will be known as PM-WANI. PM-WANI ecosystem will be operated by different players as described herein under:

--Public Data Office (PDO): It will establish, maintain, and operate only WANI compliant Wi-Fi Access Points and deliver broadband services to subscribers.

--Public Data Office Aggregator (PDOA): It will be an aggregator of PDOs and perform the functions relating to Authorization and Accounting.

--App Provider: It will develop an App to register users and discover WANI compliant Wi-Fi hotspots in the nearby area and display the same within the App for accessing the internet service.

--Central Registry: It will maintain the details of App Providers, PDOAs, and PDOs. To begin with, the Central Registry will be maintained by C-DoT.

Q.16) What is the objective of **PM- SWANidhi Scheme**?

- a) To provide collateral free loans worth 3 lakh crore rupees to MSMEs across the country
- b) To provide collateral free loans to street vendors
- c) To provide property certificates to landholders in rural India
- d) To provide minimum income guarantee to unorganized sector workers

10 PM Compilation for the Month of December, 2020

Correct answer: B

Explanation: Ministry of Housing & Urban Affairs' scheme **PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi)** aims to empower Street Vendors by not only extending loans to them, but also for their holistic development and economic upliftment.

The scheme intends to facilitate collateral free working capital loans of up to INR10,000/- of one-year tenure, to approximately 50 lakh **street vendors**, to help resume their businesses in the urban areas, including surrounding peri-urban/rural areas.

Ministry of Housing and Urban Affairs launched a programme of **Socio-Economic Profiling of PM SVANidhi beneficiaries** and their families recently, as an additional component of PM SVANidhi Scheme. Based on the profiled data, benefits of the various eligible Central Schemes would be extended to them for their holistic socio-economic upliftment.

Q.17) Which of the following is/are functions of the **National Water Development Agency (NWDA)**?

1. To implement the projects under Pradhan Mantri Krishi Sinchai Yojna (PMKSY)
2. To carry out surveys & investigations work and prepare DPRs of river link proposals

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: The **National Water Development Agency (NWDA)**, a **Registered Society** under the then Ministry of Irrigation [now Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD&GR) under **Ministry of Jal Shakti (MoJS)**] was set up in the year 1982 to carry out detailed studies, surveys and investigations in respect of Peninsular Component under National Perspective Plan (NPP) for Water Resources Development.

Its functions include:

--To carry out detailed studies about the quantum of water in various Peninsular River systems and Himalayan River systems which can be transferred to other basins/States after meeting the reasonable needs of the basin/States in the foreseeable future.

--To prepare feasibility report of the various components of the scheme relating to Peninsular Rivers development and Himalayan Rivers development.

--To undertake/ construct/repair/renovate/rehabilitate/implement the projects under Pradhan Mantri Krishi Sinchai Yojna (PMKSY)

--To act as a repository of borrowed funds or money received on deposit or loan given on interest to secure the repayment of any such borrowed funds/money/deposit/loan etc. for the execution of projects.

Q.18) Who is the chairperson of the **COVID-19 Vaccine Task Force** set up the Government of India?

- a) Principal Scientific Adviser to the Government of India
- b) Member (Health), NITI Aayog
- c) Union Minister of Health & Family Welfare
- d) Both (a) and (b)

Correct answer: D

Explanation: The **Vaccine Task Force**, which was constituted by the Union Government in April, 2020, is **co-chaired** by the **Principal Scientific Adviser to the Government of**

10 PM Compilation for the Month of December, 2020

India and Member (Health), NITI Aayog. With technical experts and representatives of relevant ministries as its members, it provides guidance for focused research on Corona vaccines and other related Science and Technology Issues.

The **National Expert Group on Vaccine Administration for COVID- 19 (NEGVAC)** has also been formed in last August to aid and provide guidance on i) prioritization of population groups, ii) procurement and inventory management, iii) vaccine selection, and iv) vaccine delivery and tracking mechanism. The NEGVAC is chaired by Dr. V.K.Paul, Member (Health), NITI Aayog and co-chaired by the Health Secretary.

Q.19) Which of the following organization has released the **Urban Governance Index (UGI)-2020?**

- a) NITI Aayog
- b) National Institute of Urban Affairs
- c) Pratham NGO
- d) Praja Foundation NGO

Correct answer: D

Explanation: The **Urban Governance Index (UGI)-2020** have been released recently by the **Praja Foundation non-profit foundation**. The study for the Urban Governance Index 2020 spanned three years (2017-2020) in 40 cities across 28 states as well as the NCT of Delhi. Odisha has topped the rankings followed by Maharashtra, Chhattisgarh, Kerala and Madhya Pradesh. The index revealed that Kerala had the most empowered city-elected representatives and legislative structure while Tamil Nadu had the most empowered city administration out of all 29 states.

Q.20) Consider the following statements regarding the **Atmanirbhar Bharat Rojgar Yojana (ABRY):**

1. It aims to boost employment in formal sector.
2. Government of India will provide subsidy for two years in respect of new employees engaged between October, 2020 and June, 2021.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

The Union Cabinet has given its approval for **Atmanirbhar Bharat Rojgar Yojana (ABRY)** to boost employment in **formal sector** and incentivize creation of new employment opportunities during the Covid recovery phase under Atmanirbhar Bharat Package 3.0.

--Government of India will provide subsidy for two years in respect of new employees engaged on or after 1st October, 2020 and upto 30th June, 2021

--Government will pay both 12% employees' contribution and 12% employers' contribution towards EPF in respect of new employees in establishments employing upto 1000 employees for two years; and only employees' share of EPF contribution in establishments employing more than 1000 employee for two years.

--An employee drawing monthly wage of less than Rs. 15000/- who was not working in any establishment registered with the Employees' Provident Fund Organisation (EPFO) before 1st October, 2020 and did not have a Universal Account Number or EPF Member account number prior to 1st October 2020 will be eligible for the benefit,

10 PM Compilation for the Month of December, 2020

--Any EPF member possessing Universal Account Number (UAN) drawing monthly wage of less than Rs. 15000/- who made exit from employment during Covid pandemic from 01.03.2020 to 30.09.2020 and did not join employment in any EPF covered establishment up to 30.09.2020 will also be eligible to avail benefit,

ForumIAS

10 PM Compilation for the Month of December, 2020

INTERNATIONAL RELATIONS/ORGANISATIONS

Q.1) Consider the following statements regarding the **UN Alliance of Civilizations (UNAOC)**:

1. It has been established at the initiative of European Union.
2. India is part of the Group of Friends, a community of countries and international organizations which promotes the Alliance's objectives and work.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. The **United Nations Alliance of Civilization (UNAOC)** was established in 2005, at the initiative of the **Governments of Spain and Turkey**, under the auspices of the United Nations.

A High-level Group of experts was formed by **former Secretary-General Kofi Annan** to explore the roots of polarization between societies and cultures today, and to recommend a practical programme of action to address this issue. The Report of the High-level Group provided analysis and put forward practical recommendations that form the basis for the implementation plan of the United Nations Alliance of Civilizations.

Statement 2 is correct. The Alliance benefits from a political support of the **Group of Friends**, a community of countries and international organizations which actively promotes the Alliance's objectives and work at the global, regional and local levels, as well as worldwide.

India is a member to the 'Group of Friends'.

India has asked the UNAOC to expand its criticism of hatred and violence against religions beyond the three Abrahamic religions.

Q.2) Which of the following organization has published the State of Global Climate Report, 2020?

- a) Intergovernmental Panel on Climate Change
- b) World Meteorological Organization
- c) United Nations Framework Convention on Climate Change
- d) United Nations Environment Programme

Correct answer: B

Explanation: The **World Meteorological Organization (WMO)** has released the annual State of Global Climate Report, 2020 to keep a track of global warming.

The global mean surface temperature for January-October was 1.2 degree Celsius higher than the pre-industrial baseline (1850-1900).

There was heavy rainfall and flooding in many parts of Asia and Africa leading to loss of human lives, property and livelihoods. The most affected were the Sahel and Greater Horn regions of Africa and China, India, Korea and Japan regions of Asia.

South America on the other hand experienced severe droughts with northern Argentina, Paraguay and western areas of Brazil being some of the worst affected. Brazil alone recorded agricultural losses of \$3 billion.

10 PM Compilation for the Month of December, 2020

Q.3) Consider the following statements regarding the **Partners in Population and Development (PPD)**:

1. It aims to improve South-South collaboration in the fields of family planning and reproductive health, population and development.
2. India and China both are members of PPD.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Partners in Population and Development (PPD)** is an Inter-governmental Alliance of 27 developing countries with a mission to expand and improve South-South collaboration in the fields of family planning and reproductive health, population and development through the governments, NGOs and private sector organizations. It was created at the International Conference on Population and Development (ICPD) in Cairo in 1994.

Statement 2 is correct. There were only 10 developing countries at the time of formation of the Organization in 1994, over the years PPD's membership has increased to 27 developing countries across Asia, Middle East and North Africa, Sub-Saharan Africa and Latin America covering nearly 60% of total world population.

Bangladesh, **China, India**, Indonesia, Pakistan, Sri Lanka, Thailand and Viet Nam are the PPD members from Asia.

Q.4) Which of the following is the criterion to be listed under the “**Special Watch List**” (SWL) of U.S. State Department?

- a) Country that engages in or tolerates severe violations of religious freedom
- b) A nation proliferating the nuclear weapons technology
- c) A country violating the FATF Recommendations
- d) A country being potential threat to security of NATO members

Correct answer: A

Explanation: **Pakistan and China** along with Myanmar, Eritrea, Iran, Nigeria, North Korea, Saudi Arabia, Tajikistan and Turkmenistan were recently placed in the Special Watch List for engaging in or tolerating "systematic, ongoing, egregious violations of religious freedom".

A “**Special Watch List**” country is one that is deemed not to meet all of the “Country of Particular Concern” criteria but engages in or tolerates severe violations of religious freedom. This country category was established in the International Religious Freedom Act of 2016 which amended the IRFA to provide the U.S. Government new tools, resources, and responsibilities to advance and promote international religious freedom. The Secretary of State, under authority delegated by the President, designates a Special Watch List.

Q.5) Consider the following statements regarding the **International Organization of Securities Commissions (IOSCO)**:

1. It brings together the world's banking regulators and is recognized as the global standard setter for the banking sector.
2. India's securities regulator is an ordinary member of the IOSCO.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only

10 PM Compilation for the Month of December, 2020

- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. The **International Organization of Securities Commissions (IOSCO)** is the international body that brings together the world's **securities regulators** and is recognized as the global standard setter for the securities sector.

IOSCO develops, implements and promotes adherence to internationally recognized standards for securities regulation. It works intensively with the G20 and the Financial Stability Board (FSB) on the global regulatory reform agenda.

Statement 2 is correct. The ordinary members (129) to the IOSCO are the national securities commissions. Securities and Exchange Board of India (SEBI) is an ordinary member of IOSCO and a member of the IOSCO Board.

Q.6) Which of the following is/are correctly matched?

- 1. Natanz - Iran
- 2. Tigray - Ethiopia
- 3. Fordow Nuclear Plant - UAE

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: A

Explanation: Option 1 is correctly matched. **Natanz** is a city and capital of Natanz County, Isfahan Province, **Iran**. Natanz nuclear facility in Iran is largest uranium enrichment facility.

Option 2 is correctly matched. The **Tigray Region** is the northernmost region of **Ethiopia**. The Tigray make up about 6 percent of Ethiopia's 110 million people, and they were the arbiters of power and money in the country from 1991, when they helped dismantle a military dictatorship, until 2018, when anti-government protests catapulted Mr. Abiy to power.

An armed conflict has started recently in the region between the Tigray People's Liberation Front (TPLF); and an alliance of the Ethiopian National Defense Force (ENDF).

Option 3 is incorrectly matched. **Fordow Fuel Enrichment Plant (FFEP) is Iran's** second pilot enrichment plant (the first is the Pilot Fuel Enrichment Plant at Natanz). The site was originally a tunnel facility associated with Iran's paramilitary organization, the Islamic Revolutionary Guards Corps (IRGC) and is located buried in a mountain near the city of Qom.

Q.7) Consider the following statements regarding the **Joint Comprehensive Plan of Action (JCPOA)**:

- 1. The deal completely barred any Uranium enrichment by Iran.
- 2. Iran's compliance with the nuclear-related provisions of the JCPOA was to be verified by the International Atomic Energy Agency (IAEA).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: B

Explanation: Statement 1 is incorrect. Under the nuclear deal, **Iran is allowed to enrich uranium only up to a 3.67% concentration**; to stockpile no more than 300kg (660lbs) of the material; to operate no more than 5,060 of its oldest and least efficient centrifuges; and to cease enrichment at the underground Fordo facility.

Another part of the deal instructs Iran not to accumulate more than 130 tonnes of heavy water, which contains more hydrogen than ordinary water, and to redesign its heavy-water nuclear reactor at Arak. Spent fuel from a heavy-water reactor contains plutonium, which can be used in a nuclear bomb.

Statement 2 is correct. Iran's compliance with the nuclear-related provisions of the JCPOA was to be verified by the **International Atomic Energy Agency (IAEA)** according to certain requirements set forth in the agreement.

Q.8) Which of the following countries are participant to the **ASEAN Defence Ministers' Meeting Plus (ADMM-Plus)**?

1. China
2. India
3. Japan

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: **ASEAN Defence Ministers' Meeting Plus** is an annual meeting of Defence Ministers of 10 ASEAN Countries and eight partner countries. This year marks the 10th year of inception of ADMM Plus forum.

The ADMM-Plus is a platform for ASEAN and its eight Dialogue Partners **Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States** (collectively referred to as the "Plus Countries"), to strengthen security and defence cooperation for peace, stability, and development in the region.

Q.9) Consider the following statements regarding the **Human Rights Day**:

1. It is observed every year on 10 December — the day the United Nations General Assembly adopted Universal Declaration of Human Rights (UDHR).
 2. The 2020 Human Rights Day theme is 'Recover Better - Stand Up for Human Rights'.
- Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

Human Rights Day is observed every year on 10 December — the day the United Nations General Assembly adopted, in 1948, the **Universal Declaration of Human Rights (UDHR)**. # Available in more than 500 languages, it is the most translated document in the world.

The **2020 Human Rights Day theme is 'Recover Better - Stand Up for Human Rights'**. This year's Human Rights Day theme relates to the COVID-19 pandemic and focuses on the need to build back better by ensuring Human Rights are central to recovery efforts.

10 PM Compilation for the Month of December, 2020

Q.10) Which of the following organisation has released the **Climate Change Performance Index (CCPI) 2021**?

- a) United Nations Framework Convention on Climate Change
- b) Germanwatch and NewClimate Institute
- c) Intergovernmental panel on Climate Change
- d) International Union for Conservation of Nature

Correct answer: B

Explanation: The **Climate Change Performance Index published by Germanwatch, CAN International and the NewClimate Institute** evaluates and compares the climate protection performance of 57 countries and the EU.

Published annually since 2005, the Climate Change Performance Index (CCPI) tracks countries' efforts to combat climate change.

The latest Climate Change Performance Index (CCPI) 2021 has placed India among the top 10 countries to have adopted substantial measures to mitigate climate change. The report has ranked India at the 10th position with 63.98 scores.

The index follows the directives led by the 2015 Paris Agreement, established with the goal to limit global warming to well below 2°C or even to 1.5°C. Therefore, CCPI assesses the countries on how much they have worked towards achieving this goal and how the countries are faring with respect to their 2030 targets.

Q.11) Which of the following city has been included in the **UNESCO World Heritage cities list**?

1. Gwalior
2. Orchha
3. Mussoorie

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: A

Explanation: The **Gwalior and Orchha fort cities of Madhya Pradesh** have been included in the UNESCO World Heritage cities under its urban landscape cities programme.

Gwalior was established in 9th century and ruled by Gurjar-Pratihara rajvansha, Tomars, Baghel and Scindhias. It is known for its palaces and temples including the famous Sas Bahu Ka Mandir.

Orchha was the capital of Bundela kingdom in 16th century and has palaces and temples as major attractions for tourists.

Q.12) Consider the following statements regarding the **Chabahar Port**:

1. India, Iran and Uzbekistan have decided to hold a Trilateral Working Group Meeting on joint use of Chabahar Port.
2. India is participating in the development of the Shahid Behesti Port in Chabahar.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: C

Explanation: Statement 1 is correct. The **first Trilateral Working Group Meeting between India, Iran and Uzbekistan** on joint use of Chabahar Port will be held virtually on December 14, 2020.

India has welcomed the interest of Uzbekistan to use the Chabahar port as a transit port. This would open up economic opportunities for the traders and business community of the region. Besides Uzbekistan, other Central Asian countries have also shown interest in using the port.

Statement 2 is correct. India is participating in the development of the first phase of the **Shahid Behesti Port in Chabahar** in cooperation with the Government of the Islamic Republic of Iran.

An Indian company, India Ports Global Limited, has taken over port operations of Shahid Behesti Port in Chabahar in December 2018.

Q.13) Consider the following statements regarding **The Better Than Cash Alliance**:

1. It is a partnership of governments, companies and international organizations that accelerates the transition from cash to responsible digital payments.
2. India is a member to the alliance.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Based at the United Nations, the Better Than Cash Alliance** is a partnership of governments, companies and international organizations that accelerates the transition from cash to responsible digital payments to advance the Sustainable Development Goals.

Statement 2 is correct. The Alliance has 75 members, **including India**, which are committed to digitizing payments in order to boost efficiency, transparency, women's economic participation and financial inclusion, helping build economies that are digital and inclusive. Members do not want to abolish physical cash – it is legal tender – but rather want to provide responsible digital payment options that are “better than cash”.

Q.14) The **Reform, Recovery and Reconstruction Framework (3RF)** relates to which of the following country?

- a) Lebanon
- b) Syria
- c) Israel
- d) United Kingdom

Correct answer: A

Explanation: The **Lebanon Reform, Recovery and Reconstruction Framework (3RF)** is a response plan to help Lebanon address the urgent needs of the population affected by the 4th of August Port of Beirut explosion that killed over 200 people, injured more than 6,500 and destroyed thousands of homes and properties. It provides a costed and prioritized framework of key actions to support the recovery and reconstruction of Beirut.

It has been launched by the **European Union (EU), the United Nations (UN) and the World Bank Group (WBG)**.

10 PM Compilation for the Month of December, 2020

Q.15) Consider the following statements regarding **United Nations Investment Promotion Awards**:

1. The Award recognizes the achievements of the World's best-practice investment promotion agencies.
2. 'Invest India' has won the 2020 UN Investment promotion award.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

United Nations Conference on Trade and Development (UNCTAD) has declared 'Invest India' as winner of the 2020 United Nations Investment Promotion Award.

The Award recognizes and celebrates the outstanding achievements of the World's best-practice investment promotion agencies. The evaluation was based on UNCTAD's assessment of work undertaken by 180 national Investment Promotion Agencies across the world. IPAs response to the pandemic became the basis for the evaluation of the 2020 United Nations Investment Promotion Award.

10 PM Compilation for the Month of December, 2020

ECONOMY

Q.1) Which of the following is the objective the **Accommodative policy stance** of central bank?

- a) Keep consumer inflation in check
- b) Increase interest rates high to limit the money supply
- c) Expand the money supply to boost the economy
- d) Open the economy to increase the potential for foreign direct investment

Correct answer: C

Explanation: **Accommodative monetary policy**, also known as loose credit or easy monetary policy, occurs when a central bank attempts to expand the overall money supply to boost the economy when growth is slowing.

It does this by running a succession of decreases in the Interest rates, making the cost of borrowing cheaper. Accommodative money policy is triggered to encourage more spending from consumers and businesses by making money less expensive to borrow through the lowering of short-term interest rates.

Q.2) Consider the following statements:

- 1. Labour dispute is a subject in the Concurrent List under the Constitution.
- 2. As per the Code on Wages, 2019 State governments will fix a floor wages, taking into account living standards of workers.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. Under the Constitution of India, Labour is a subject in the Concurrent List where both the Central & State Governments are competent to enact legislation subject to certain matters being reserved for the Centre.

Entry 22: Trade Unions; industrial and labour disputes.

Entry 23: Social Security and insurance, employment and unemployment.

Statement 2 is incorrect. According to the **Code on Wages 2019**, **the central government will fix a floor wage**, taking into account living standards of workers. Further, it may set different floor wages for different geographical areas. Before fixing the floor wage, the central government may obtain the advice of the Central Advisory Board and may consult with state governments.

The minimum wages decided by the central or state governments must be higher than the floor wage. In case the existing minimum wages fixed by the central or state governments are higher than the floor wage, they cannot reduce the minimum wages.

Q.3) Which of the following is/are the mandate of the **National Statistical Office (NSO)**?

- 1. Publishing annual estimates of national product
 - 2. Releasing the Index of Industrial Production (IIP)
 - 3. Conducting the Annual Survey of Industries (ASI)
- Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only

10 PM Compilation for the Month of December, 2020

d) All of the above

Correct answer: D

Explanation: NSO is mandated with the following responsibilities among others:

--prepares **national accounts as well as publishes annual estimates of national product**, government and private consumption expenditure, capital formation, savings, estimates of capital stock and consumption of fixed capital, as also the state level gross capital formation of supra-regional sectors and prepares comparable estimates of State Domestic Product (SDP) at current prices;

--compiles and releases the **Index of Industrial Production (IIP)** every month in the form of 'quick estimates'; conducts the **Annual Survey of Industries (ASI)**; and provides statistical information to assess and evaluate the changes in the growth, composition and structure of the organized manufacturing sector;

Q.4) Consider the following statements regarding **Private final consumption expenditure (PFCE)**:

1. It is the expenditure incurred by the resident households and non-profit institutions serving households on final consumption of goods and services.
2. It forms more than half of the Real Gross Domestic Product of India.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The **Private final consumption expenditure (PFCE)** is defined as the expenditure incurred by the resident households and non-profit institutions serving households (NPISH) on final consumption of goods and services, whether made within or outside the economic territory.

Statement 2 is correct. The Private Final Consumption Expenditure formed more than 57 percent of the Real Gross Domestic Product (At 2011-12 Prices) of India in 2019-20.

Growth Rates and Composition of Real Gross Domestic Product (At 2011-12 Prices)							
Sector	Growth Rate				Share		
	Average 2013-14 to 2019-20	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20
	2	3	4	5	6	7	8
Expenditure Side GDP							
1. Private Final Consumption Expenditure	7.0	7.0	7.2	5.3	56.0	56.6	57.2
2. Government Final Consumption Expenditure	7.9	11.8	10.1	11.8	10.2	10.6	11.3
3. Gross Fixed Capital Formation	4.8	7.2	9.8	-2.8	30.8	31.9	29.8
4. Change in Stocks	16.4	76.0	22.5	1.9	1.6	1.9	1.9
5. Valuables	-1.0	27.2	-11.9	13.5	1.5	1.2	1.3
6. Net Exports	-17.1	-257.7	11.8	29.2	-3.6	-3.0	-2.0
a) Exports	3.2	4.6	12.3	-3.6	19.7	20.9	19.3
b) Less Imports	1.5	17.4	8.6	-6.8	23.4	23.9	21.4
7. Discrepancies	-58.4	65.1	-73.9	-25.6	3.5	0.9	0.6
8. GDP	6.8	7.0	6.1	4.2	100.0	100.0	100.0

10 PM Compilation for the Month of December, 2020

GEOGRAPHY/ENVIRONMENT

Q.1) What is **Karsog Kulth**?

- a) A legume crop grown in Himachal Pradesh
- b) A variety of rice grown in coastal region of Kerala
- c) An Ayurvedic drug extracted from Trans-Himalayan herbs
- d) A crater on dark side of the moon

Correct answer: A

Explanation: **Kulthi or Kulth (horse gram) is a legume grown as a kharif crop in Himachal Pradesh.** Kulth grown in the Karsog area of Mandi district is believed to be particularly rich in amino acids.

The Himachal Pradesh government is trying to obtain Geographical Indication certification for five products from the state – Karsog Kulth, Thangi of Pangi, Chamba Metal Crafts, Chamba Chukh, and Rajmah of Bharmour.

The GI is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin”.

GIs are covered as an element of intellectual property rights under the Paris Convention for the Protection of Industrial Property. They are also covered under the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement.

Q.2) Which of the following is/are **tributaries of the Yamuna River**?

- 1. Tons River
- 2. Giri River
- 3. Hindon River

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: The **Yamuna River originates from the Yamunotri Glacier near Banderpoonch peaks** in the Mussourie range of the lower Himalayas at an elevation of about 6,387 meters above the mean sea level in district Uttarkashi (Uttarakhand).

The important tributaries of the Yamuna River are the Tons, the Chambal, the Hindon, the Sarda, the Betwa and the Ken. Smaller tributaries of the Yamuna River include Rishiganga, the Uma, the Hanuman Ganga, the Giri, the Karan, the Sagar and the Rind.

The main Yamuna and Tons are fed by glaciers, viz., the Bandar Punch Glacier and its branches and originate from the Great Himalayan range.

CPCB monitors water quality of River Yamuna and drains discharging into the River.

CPCB has issued directions to Delhi Jal Board to submit time bound action plan to ensure compliance to norms by STPs and that no untreated sewage is discharged to these drains.

Q.3) The **Tharu tribals** belong to which of the following State?

- a) Uttar Pradesh
- b) Jharkhand
- c) Rajasthan
- d) Odisha

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: The **Tharus live in both India and Nepal**. In the Indian terai, they live mostly in Uttarakhand, Uttar Pradesh, and Bihar.

They speak various dialects of Tharu, a language of the Indo-Aryan subgroup, and variants of Hindi, Urdu, and Awadhi. In central Nepal, they speak a variant of Bhojpuri, while in eastern Nepal, they speak a variant of Maithili.

The state government is working to connect Tharu villages in the districts of Balrampur, Bahraich, Lakhimpur and Pilibhit bordering Nepal, with the home stay scheme of the UP Forest Department.

Q.4) Which of the following is/are correctly matched?

- | | | |
|---|---|---------------|
| 1. Rajgir Zoo Safari | - | Bihar |
| 2. Shaheed Ashfaque Ullah Khan Prani Udyaan | - | Uttar Pradesh |
| 3. Nandankanan Zoological Park | - | Odisha |

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: All of the above are correctly matched.

At the 37th General Body meeting of **Central Zoo Authority** chaired by Union Minister for Environment, Forest and Climate Change, two new zoos the **Rajgir Zoo Safari in Nalanda, Bihar and Shaheed Ashfaque Ullah Khan Prani Udyaan in Gorakhpur, Uttar Pradesh** were granted recognition.

Nandankanan Zoological Park is a zoo and botanical garden in Bhubaneswar, **Odisha**. Established in 1960 it became the first zoo in India to join World Association of Zoos and Aquariums in 2009.

Q.5) Consider the following statements regarding the height of **Mount Everest**:

- 1. Survey of India has declared a three feet increase in the height of Mount Everest since last assessment.
- 2. China and Nepal in collaboration have estimated a decrease in the height of the mountain.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Both statements are incorrect.

Recently the **Foreign Ministers of Nepal and China jointly certified the elevation of Mount Everest at 8,848.86 metres above sea level** — 86 cm higher than what was recognised since 1954.

The elevation of 8,848 m was determined by **Survey of India in 1954**. In 1999, a US team put the elevation at 29,035 feet (nearly 8,850 m). This survey was sponsored by the National Geographic Society, US.

10 PM Compilation for the Month of December, 2020

Q.6) Which of the following country(s) border the **Persian Gulf**?

1. Iraq
2. Kuwait
3. Qatar

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: The countries that surround the **Persian Gulf** are: Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates.



Q.7) Consider the following statements:

1. Black carbon is formed by the incomplete combustion of fossil fuels, biofuels, and biomass.
2. Black carbon and dust have led to increased incidents of high rainfall events in the foothills of the Himalayan Region.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: C

Explanation: Statement 1 is correct. **Black Carbon** is produced both naturally and by human activities as a result of the **incomplete combustion of fossil fuels, biofuels, and biomass**. Primary sources include emissions from diesel engines, cook stoves, wood burning and forest fires.

Complete combustion would turn all carbon in the fuel into carbon dioxide (CO₂), but combustion is never complete and CO₂, carbon monoxide, volatile organic compounds, and organic carbon and black carbon particles are all formed in the process. The complex mixture of particulate matter resulting from incomplete combustion is often referred to as soot.

Statement 2 is correct. A team of researchers from National Institute of Technology Rourkela, Leipzig Institute for Meteorology (LIM), University of Leipzig, Germany, Indian Institute of Technology Madras, Indian Institute of Technology Kanpur supported by the Department of Science & Technology, Government of India under DST Climate Change program have highlighted the crucial role of the aerosol direct radiative effect on high precipitation events over the Himalayan region.

Scientists have found that **aerosols like black carbon and dust**, which makes the Indo-Gangetic Plain one of the most polluted regions of the world, have led to **increased incidents of high rainfall events** in the foothills of the Himalayan Region. *[Source: PIB]*

Q.8) Which of the following country(s) border the **Western Sahara**?

1. Morocco
2. Mauritania
3. Algeria

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: **Western Sahara** is a sparsely-populated area of mostly desert situated on the northwest coast of Africa.

A former Spanish colony, it was annexed by Morocco in 1975. Since then it has been the subject of a long-running territorial dispute between Morocco and its indigenous Saharawi people, led by the Algeria backed Polisario Front.



BBG

10 PM Compilation for the Month of December, 2020

Morocco has become the latest Arab League country to agree to normalize relations with Israel in a deal brokered with US help. As part of the deal, the US has agreed to recognise Morocco's claim over the disputed Western Sahara region.

Q.9) The **Sustainable Mountain Development Summit (SMDS)** is an initiative of which of the following organization?

- a) NITI Aayog
- b) Wildlife Institute of India
- c) World Wide Fund for Nature-India
- d) Integrated Mountain Initiative

Correct answer: D

Explanation: Sustainable Mountain Development Summit (SMDS) is the Integrated Mountain Initiative's flagship annual conclave. Each year 3-5 salient themes engaging the immediate attention of and relevant to the mountains and hills are identified for threadbare discussion and debate. Conclusions and recommendations emerging from this exercise would be pursued by IMI subsequently.

The 9th edition of SMDS, being hosted by Sustainable Development Forum Uttaranchal (SDFU), will focus on the overall objective of building pathways toward a resilient and sustainable mountain economy in the IHR in the context of a post COVID-19 scenario and Climate Change.

Q.10) The **Bhasan Char** Island belongs to which of the following country?

- a) Bangladesh
- b) Sri Lanka
- c) Myanmar
- d) Thailand

Correct answer: A

Explanation: Bhasan Char, also known as Char Piya, is an island in Bay of Bengal under Hatiya Upazila of **Bangladesh**. Recently Bangladesh has sent the first group of more than 1,500 Rohingya refugees to an isolated Bhasan Char island.



Q.11) Consider the following statements regarding the **Malayan giant squirrel**:

1. It is found in the north eastern region of India.
2. It is listed as a Critically Endangered species in the IUCN Red List.

Created with love ❤ by ForumIAS- the knowledge network for civil services.
Visit academy.forumias.com for our mentor based courses.

10 PM Compilation for the Month of December, 2020

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Zoological Survey of India (ZSI) has projected that numbers of the **Malayan Giant Squirrel** could decline by 90% in India by 2050 and it could be extinct by then if urgent steps are not taken.

Statement 1 is correct. The black giant squirrel or Malayan giant squirrel is a large tree squirrel in the genus *Ratufa* native to the Indomalayan zootope. It is found in forests from northern Bangladesh, **northeast India**, eastern Nepal, Bhutan, southern China, Myanmar, Laos, Thailand, Malaysia, Cambodia, Vietnam, and western Indonesia.

Statement 2 is incorrect. Black Giant Squirrel (*Ratufa bicolor*) is listed as '**Near threatened**' species in the IUCN Red List.

10 PM Compilation for the Month of December, 2020

SCIENCE & TECHNOLOGY

Q.1) Which of the following can be the reason for the **foam in rivers**?

1. Fatty acids released from decaying organic material
2. Discharge of detergents to water bodies

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: As with most liquids, water molecules are normally attracted to each other. This attraction creates tension at the surface of the water, often referred to as a thin "skin," which allows some insects to glide across it.

--When leaves, twigs or other organic substances fall into water and begin decaying, they release compounds known as **surfactants**.

This interaction breaks the surface tension, which in turn allows air to more easily mix with water and creates bubbles. These bubbles congregate as natural foam.

--Not all foam is natural. Certain man-made products, including **detergents** can cause foam that is similar in appearance, but may be harmful to fish and other aquatic life.

In addition, human activities that cause an increase in algae or aquatic plant growth such as the introduction of fertilisers can cause plant and algae blooms and an increase in foam production.

Q.2) What does the **Ramachandran Plot** relate to?

- a) Photoelectric current generation under low light conditions
- b) Planet's orbital motion with respect to distance from central star
- c) Relationship between tax revenue and GDP growth
- d) Basic elements of protein structure

Correct answer: D

Explanation: The **Ramachandran plot is a foundational concept used in biochemistry** courses to describe the basic elements of protein structure.

It was developed in 1963 by G. N. Ramachandran, C. Ramakrishnan, and V. Sasisekharan, to visualize energetically allowed regions for backbone dihedral angles ψ against ϕ of amino acid residues in protein structure.

Proteins are made of long-chain polymers called polypeptides. There can be one or multiple polypeptide chains that come together to form a protein. The novel coronavirus's spike protein comprises three identical peptide chains. Each chain consists of repeating units called amino acids.

Q.3) Which of the following is/are **essential amino acids**?

1. Histidine
2. Leucine
3. Valine

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

10 PM Compilation for the Month of December, 2020

Correct answer: D

Explanation: Protein is made from twenty-plus basic building blocks called amino acids. Because we don't store amino acids, our bodies make them in two different ways: either from scratch, or by modifying others.

Nine amino acids—histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine—known as the **essential amino acids**, must come from food.

Nonessential means that our bodies produce an amino acid, even if we do not get it from the food we eat. **Nonessential amino acids** include: alanine, arginine, asparagine, aspartic acid, cysteine, glutamic acid, glutamine, glycine, proline, serine, and tyrosine.

Q.4) AlphaFold artificial intelligence program has been in news recently, what is its utility?

- Predictions of protein structure
- Modeling of Solar system
- Simulating a potential pandemic situation after COVID-19
- Genome sequence development

Correct answer: A

Explanation: AlphaFold is an artificial intelligence program developed by Google's DeepMind which performs predictions of protein structure.

It has outperformed around 100 other teams in a biennial protein-structure prediction challenge called **Critical Assessment of Structure Prediction (CASP)**. The results were announced on 30 November, at the start of the conference — held virtually this year — that takes stock of the exercise.

The ability to accurately predict protein structures from their amino-acid sequence would be a huge boon to life sciences and medicine. It would vastly accelerate efforts to understand the building blocks of cells and enable quicker and more advanced drug discovery.

Q.5 Which of the following is/are examples of the **machine learning (ML)**?

- Digital assistants playing music in response to voice commands
- Spam detectors stop unwanted emails from reaching mailboxes
- Self-driving cars

Select the correct answer using the code given below:

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- All of the above

Correct answer: D

Explanation: Machine learning is a method of data analysis that automates analytical model building. It is a branch of artificial intelligence based on the idea that systems can learn from data, identify patterns and make decisions with minimal human intervention.

Examples of machine learning: Digital assistants search the web and play music in response to our voice commands. Websites recommend products and movies and songs based on what we bought, watched, or listened to before. Spam detectors stop unwanted emails from reaching our inboxes. Medical image analysis systems help doctors spot tumors they might have missed. And the first self-driving cars like Tesla are hitting the road.

Q.6) What is the utility of the **Molnupiravir drug**?

- Potential drug to stop the transmission of SARS-CoV-2

10 PM Compilation for the Month of December, 2020

- b) A new antibiotic to treat Antimicrobial Resistant diseases
- c) A prophylactic drug for potential radioactive exposure
- d) A skin regenerative drug for minor injuries

Correct answer: A

Explanation: A new drug called **Molnupiravir** has been shown to stop the transmission of **SARS-CoV-2** in 24 hours. Results of the research by scientists at the Institute of Biomedical Sciences, Georgia State University, have been published in the journal Nature Microbiology.

Molnupiravir is being developed by the biotechnology firm Ridgeback Biotherapeutics in collaboration with pharmaceutical firm Merck.

Q.7) Which of the following statements correctly defines the term ‘**Quantum Supremacy**’?

- a) A super computer being able to model physical reality to nano-scale
- b) A system performing quantum physics calculations within a second
- c) Quantum computers being able to do things that classical computer can't
- d) A super computer being at least ten times faster than the next fastest one

Correct answer: C

Explanation: The original meaning of the term “**quantum supremacy**,” as proposed by **John Preskill** in 2012, is to describe the point where **quantum computers can do things that classical computers can't**.

Google in 2019 said that its 54-qubit Sycamore processor was able to perform a calculation in 200 seconds that would have taken the world's most powerful supercomputer 10,000 years. That would mean the calculation, which involved generated random numbers, is essentially impossible on a traditional, non-quantum computer.

Recently a **Chinese team**, based primarily at the University of Science and Technology of China in Hefei, reported their quantum computer, named Jiuzhang, is 10 billion times faster than Google's.

Assuming both claims hold up, Jiuzhang would be the second quantum computer to achieve quantum supremacy anywhere in the world.

Where classical computers perform calculations using bits, which can have one of two states (typically represented by a 1 or a 0), quantum bits, or qubits, can exist in many states simultaneously. This allows them to solve problems more quickly than classical computers.

Q.8) Which of the following is/are correctly matched?

- 1. COVAXIN - Inactivated SARS-COV-2
- 2. COVISHIELD - Adenovirus vector
- 3. ZyCoV-D - Plasmid DNA vaccine

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: **Covaxin** is an indigenous **inactivated whole SARS-CoV-2** virus vaccine that has been developed by the Hyderabad-based Bharat Biotech in collaboration with the NIV/ICMR.

Covishield is based on the chimpanzee **adenovirus vector-based** vaccine developed by Oxford University in partnership with the British-Swedish vaccine manufacturer

10 PM Compilation for the Month of December, 2020

AstraZeneca called ChAdOx1/AZD1222. The Serum Institute of India (SII), Pune, will, under licence from Oxford University and AstraZeneca, produce the vaccine under its brand name Covishield for domestic and regional consumption.

ZyCoV-D is a plasmid DNA vaccine developed by the Indian company Cadila Healthcare Ltd. Plasmids are circular double-stranded DNA molecules usually found in bacteria. But these are external to the bacterial chromosomes and can replicate independently. Plasmids are used as the platform to directly deliver the antigenic determinant (its DNA sequence) into the body.

Q.9) Consider the following statements regarding the **Parkinson's disease**:

1. There is no cure for this disease.
2. No women have ever been diagnosed with the Parkinson's disease.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Parkinson's disease (PD) is the second most common neurodegenerative disease after Alzheimer's disease. Early symptoms of PD include tremor, rigidity, and difficulty walking; cognitive decline is common at later stages. The underlying pathology of PD is selective death of dopamine-generating cells in the substantia nigra, a part of the brain involved in movement, reward, and addiction.

Statement 1 is correct. There is **no cure for Parkinson's disease**, medicines, surgical treatment, and other therapies can often relieve some symptoms.

Statement 2 is incorrect. **Both men and women can have Parkinson's disease.** However, the disease affects about 50 percent more men than women.

One clear risk factor for Parkinson's is age. Although most people with Parkinson's first develop the disease at about age 60, about 5 to 10 percent of people with Parkinson's have "early-onset" disease, which begins before the age of 50.

Q.10) Which of the following malnutrition terms is/are correctly matched?

1. Stunted - low weight for age
2. Wasted - low weight for height

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Option 1 is incorrectly matched. **Stunting, or low height for age**, is caused by long-term insufficient nutrient intake and frequent infections. Stunting generally occurs before age two, and effects are largely irreversible. These include delayed motor development, impaired cognitive function and poor school performance.

Option 2 is correctly matched. **Wasting, or low weight for height**, is a strong predictor of mortality among children under five. It is usually the result of acute significant food shortage and/or disease.

10 PM Compilation for the Month of December, 2020

Q.11) Consider the following statements regarding the **Narrow Band-Internet of Things (NB-IoT)**:

1. It is a low power wide area network (LPWAN) technology.
2. NB-IoT is compatible with existing cellular network infrastructure.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

NarrowBand-Internet of Things (NB-IoT) is a specification developed by 3GPP. It is a standards-based low power wide area (LPWA) technology developed to enable a wide range of new IoT devices and services. NB-IoT significantly improves the power consumption of user devices, system capacity and spectrum efficiency, especially in deep coverage.

NB-IoT is an 'industrial grade' LPWA solution – it runs on licenced spectrum which guarantees quality of service and a future-proofed capability. It's a **cellular technology** related to LTE, supports two-way communications and is designed specifically for LPWA applications

It has low device cost, and **compatibility with existing cellular network** infrastructure, with the same level of security as LTE.

BSNL, in partnership with Skylo, to introduce worlds' first, satellite-based narrowband-IoT network in India.

Q.12) Which of the following statements correctly defines **Uranium enrichment**?

- a) Addition of Thorium to Uranium
- b) Radioactive decay of the Uranium-235
- c) Nuclear fusion of Uranium and Plutonium
- d) Increasing the concentration of the isotope Uranium-235

Correct answer: D

Explanation: Natural uranium deposits exist all over the world, but uranium in this form is not suitable for nuclear weapons, and cannot be used in most nuclear reactors for either electricity or plutonium production.

Natural uranium is composed of various isotopes, or different types of uranium. It contains approximately **99.3% of the isotope uranium-238, and has only very small concentrations, about 0.7%, of the fissile isotope uranium-235.** An isotope is considered fissile if it can be split by a slow-moving neutron.

Uranium-235 is the most significant fissile isotope of uranium for reactor fuel and nuclear weapons. To be useful for either of these purposes, the concentration of uranium-235 must be increased by separating it from uranium-238 through a process known as enrichment.

Q.13) What is '**Ischaemum janarthanamii**' that has been in news recently?

- a) A new grass species discovered in Western Ghats
- b) Monoliths being planted secretly all over the world
- c) A Greek term for ancient Ayurvedic treatments
- d) The location on Moon for landing of Artemis Lunar Mission

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: A new species of **Indian Muraingrasses** known for their ecological and economic importance, such as fodder, have been spotted by scientists in Goa in the Western Ghats, one of the four global biodiversity hotspots of India. The species has adapted to survive harsh conditions, low nutrient availability, and blossoms every monsoon.

Globally 85 species are known from *Ischaemum*, of which 61 species are exclusively found in India. The Western Ghats have 40 species with the highest concentration of the genus.

The species was named ***Ischaemum janarthanamiin*** honor of Prof. M. K. Janarthanam, Professor of Botany, Goa University, for his contribution to the Indian grass taxonomy and documentation of the floristic diversity of Goa state.

Q.14) Which of the following is the objective of **Beresheet 2 Mission**?

- a) A manned mission to Mars
- b) A deep sea exploration initiative
- c) A project to study impact of gravitational waves
- d) An unmanned mission to moon

Correct answer: D

Explanation: SpaceIL, the nonprofit Israeli initiative whose spacecraft crashed as it tried to land on the moon last year, announced recently that it is launching another lunar mission with its Israeli government partners. The **Beresheet 2 project will aim to send three spacecraft — an orbiter and two landers — to the moon.**

The first Beresheet, or “Genesis,” spacecraft, built by SpaceIL and state-owned Israel Aerospace Industries had crashed on moon surface in 2019.

Q.15) Which of the following is/are **mRNA vaccine candidates** for COVID-19?

- 1. ChAdOx1 nCoV-19
- 2. COVAXIN
- 3. HGCO19

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 only
- c) 1 and 3 only
- d) 3 only

Correct answer: D

Explanation: The **mRNA vaccines** do not use the conventional model to produce immune response. Instead, mRNA vaccine carries the molecular instructions to make the protein in the body through a synthetic RNA of the virus. The host body uses this to produce the viral protein that is recognized and thereby making the body mount an immune response against the disease.

Option 1 is incorrect. **ChAdOx1 nCoV-19** is a recombinant adenovirus vaccine candidate against SARS-CoV-2. It has been developed by Oxford University in collaboration with AstraZeneca. It is being produced in India by Serum Institute of India under brand name COVISHIELD.

Option 2 is incorrect. **COVAXIN by Bharat Biotech** is an inactivated vaccine developed from an Indian strain of the novel coronavirus isolated by NIV.

Option 3 is correct. **India's first indigenous mRNA vaccine candidate** has received approval from Indian Drug regulators to initiate Phase I/II human clinical trial. The novel mRNA vaccine candidate, **HGCO19** has been developed by Gennova, Pune and supported

10 PM Compilation for the Month of December, 2020

with seed grant under the Ind-CEPI mission of Department of Biotechnology of Ministry of Science & Technology.

Q.16) Consider the following statements regarding the **Quantum Key Distribution (QKD)**:

1. It works by transmitting polarized light particles over a fiber optic cable.
2. It is a highly secure means of communication because of its ability to detect any intrusion on the QKD transmission.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Quantum Key Distribution (QKD)** works by transmitting millions of polarized light particles (photons) over a fiber optic cable from one entity to another. Each photon has a random quantum state, and collectively all the photons create a bit stream of ones and zeros.

Statement 2 is correct. The security of QKD stems from the **ability to detect any intrusion on the QKD** transmission. Because of the unique and fragile properties of photons, any third party (or eavesdropper) who tries to read or copy the photons in any way will change the photons' state.

The change will be detected by the endpoints, alerting them that the key has been tampered with and must be discarded. A new key is then transmitted.

A milestone of this project was achieved recently when DRDO developed Quantum Key Distribution (QKD) technology underwent trials in Hyderabad between two DRDO labs, DRDL and RCI, to show secure communication.

Q.17) Which of the following statement is correct regarding the **'Havana Syndrome'**?

- a) Hostages developing affinity toward their captors during an abduction
- b) An illness reported by diplomats posted in Cuba
- c) A sickness reported by astronauts after returning from International Space Station
- d) Illness caused by motion during travel through sea

Correct answer: B

Explanation: In late 2016, **US diplomats** and other employees stationed in Havana reported feeling ill after hearing strange sounds and experiencing odd physical sensations in their hotel rooms or homes. The symptoms included nausea, severe headaches, fatigue, dizziness, sleep problems, and hearing loss, which have since come to be known as **"Havana Syndrome"**.

This mystery illness suffered by US diplomats in Cuba was most likely caused by directed microwave radiation, a US government report by the National Academies of Sciences has found.

Q.18) Consider the following statements regarding the **HL-2M Tokamak reactor**:

1. It is based on nuclear fission tokamak reactor.
2. It is a collaborative project between European Union and USA.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2

10 PM Compilation for the Month of December, 2020

d) Neither 1 nor 2

Correct answer: D

Explanation: Both statements are incorrect.

The **HL-2M Tokamak reactor** is **China's** largest and most advanced nuclear **fusion** experimental research device.

Located in southwestern Sichuan province and completed late last year, the reactor is often called an "artificial sun" on account of the enormous heat and power it produces.

Fusion is considered the source of energy and is what powers our sun. It merges atomic nuclei to create massive amounts of energy—the opposite of the fission process used in atomic weapons and nuclear power plants, which splits them into fragments.

Unlike fission, fusion does not create radioactive waste, and carries less risk of accidents or the theft of atomic material.

International Thermonuclear Experimental Reactor (ITER) is an international nuclear fusion research and engineering megaproject, which will be the world's largest magnetic confinement plasma physics experiment. ITER Members: China, the European Union, India, Japan, Korea, Russia and the United States.

10 PM Compilation for the Month of December, 2020

HISTORY/ART/CULTURE

Q.1) Consider the following statements regarding **B.R. Ambedkar**:

1. He established the Scheduled Caste Federation and Bahishkrit Hitakarini Sabha.
2. He was awarded with Bharat Ratna posthumously.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Scheduled Castes Federation (SCF)** was an organisation in India founded by B. R. Ambedkar in 1942 to campaign for the rights of the Dalit community.

Bahishkrit Hitakarini Sabha is a central institution formed by Dr. Babasaheb Ambedkar for removing difficulties of the untouchables and placing their grievances before government.

Statement 2 is correct. BR Ambedkar was conferred **Bharat Ratna** posthumously on March 31, **1990**.

In 1956, Ambedkar converted to Buddhism. He completed the final manuscript of his book on Buddhism 'The Buddha and His Dhamma' in December 1956. Three days later, on 6 December, he passed away.

Q.2) Which of the following is/are correctly matched?

1. Parliament House - Edwin Lutyens
2. Chandigarh Capitol Complex - Le Corbusier

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Option 1 is correctly matched. India's current **Parliament building was designed by the famous architects Sir Edwin Lutyens and Sir Herbert Baker** who were responsible for the planning and construction of New Delhi. The Foundation Stone of Parliament House was laid on 12 February 1921 by H.R.H. the Duke of Connaught.

Option 2 is correctly matched. **Le Corbusier**, was a Swiss-French architect, designer, painter, urban planner, writer, and one of the pioneers of what is now regarded as modern architecture.

Corbusier was 63 when he started work on **Chandigarh**, after several of his plans to reconstruct cities of Europe, after World War II, were rejected.

Chandigarh Capitol Complex, located in the sector-1 of Chandigarh, is a government compound designed by the architect Le Corbusier and a UNESCO World Heritage Site.

10 PM Compilation for the Month of December, 2020

GOVERNMENT SCHEMES/INITIATIVES

Q.1) Consider the following statements regarding the “**Scheme for Special Assistance to States for Capital Expenditure**”:

1. The Scheme is aimed at boosting capital expenditure by the State Governments facing difficult financial environment due to the COVID 19 pandemic.
2. It pushes for adoption of One Nation One Ration Card and Ease of doing Business Reforms in States.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

The “**Scheme for Special Assistance to States for Capital Expenditure**” is aimed at boosting capital expenditure by the State Governments who are facing difficult financial environment this year due to the shortfall in tax revenue arising from the COVID 19 pandemic.

Part-I of the Scheme covers the north-eastern region. Under this part, Rs.200 crores is allocated to 7 north-eastern States (Arunachal Pradesh, Meghalaya, Manipur, Mizoram, Nagaland, Sikkim and Tripura). In view of higher population and geographical area, Assam has been allocated Rs.450 crores under the scheme.

Part-II of the Scheme is, for all other States not included in Part-I. Rs.7,500 has been allocated amongst these States in proportion to their share of central tax as per the interim award of the 15th Finance Commission for the year 2020-21.

Part-III of the Scheme is aimed at pushing various citizen-centric reforms in the States. Under this Part, an amount of Rs.2000 crores is earmarked. This amount will be available only to those States who carry out at least 3 out of the 4 reforms specified by the Ministry of Finance in its letter dated 17th May, 2020 regarding reform linked additional borrowing permissions. The 4 reforms are - One Nation One Ration Card, Ease of doing Business Reform, Urban Local Body/ Utility Reform and Power Sector Reform.

All the States except Tamil Nadu have availed benefits of the newly announced scheme for “Special Assistance to States for Capital Expenditure”.

Q.2) Consider the following statements regarding the **National Family Health Survey (NFHS)**:

1. International Institute for Population Sciences (IIPS) is the nodal agency for providing coordination and technical guidance for the NFHS.
2. It is being conducted decennially in India since 1951.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The **National Family Health Survey (NFHS)** is a large-scale, multi-round survey conducted in a representative sample of households throughout India.

10 PM Compilation for the Month of December, 2020

The Ministry of Health and Family Welfare (MOHFW), Government of India, **designated IIPS as the nodal agency**, responsible for providing coordination and technical guidance for the NFHS.

Statement 2 is incorrect. **Four NFHS have been conducted with first being in 1992-93.** The Union Health Ministry recently released partial data for the fifth edition of the **National Family Health Survey (NFHS-5)** noting a considerable improvement in the supply of vaccine for childhood immunization from the fourth round in 2015-16.

Q.3) Consider the following statements:

1. National Medical Commission is responsible for establishing a uniform standard of training for nurses, Midwives and health visitors.
2. 'Education, including technical and medical education' is listed in the concurrent list of the Seventh Schedule under the Constitution.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. The **Indian Nursing Council is an Autonomous Body** under the Government of India; Ministry of Health & Family Welfare was constituted by the Central Government under section 3(1) of the Indian Nursing Council Act, 1947 of parliament in order to establish a uniform standard of training for nurses, Midwives and health visitors.

Similar to the National Medical Commission, the **draft National Nursing and Midwifery Commission Bill, 2020** calls for providing regulation and maintenance of standards of education and services by nursing and midwifery professionals.

Statement 2 is correct. **Concurrent List Entry 25:** Education, including technical education, medical education and universities, subject to the provisions of entries 63, 64, 65 and 66 of List I; vocational and technical training of labour.

Entry 26: Legal, medical and other professions.

Q.4) Which of the following is/are explicitly included in the definition of 'service' under the **Consumer Protection Act, 2019**?

1. Telecom
2. Banking
3. Transport

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: The **Consumer Protection Act 2019** aims at protecting and strengthening the rights of the consumers by establishing authorities, imposing strict liabilities and penalties on product manufacturers, electronic service providers, misleading advertisers, and by providing additional settlement of consumer disputes through mediation.

Article 2(42) of the act defines "service" as service of any description which is made available to potential users and includes, but not limited to, the provision of facilities in

10 PM Compilation for the Month of December, 2020

connection with banking, financing, insurance, transport, processing, supply of electrical or other energy, telecom, boarding or lodging or both, housing construction, entertainment, amusement or the purveying of news or other information, but does not include the rendering of any service free of charge or under a contract of personal service.

Q.5) Consider the following statements regarding the **Commission for Air Quality Management (CAQM)**:

1. It aims for a better co-ordination, identification, and resolution of problems related to air quality in the national capital region (NCR) and adjoining areas.
2. In case of any conflict, the orders or directions of the Commission will prevail over the orders of the Central Pollution Control Board (CPCB).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The **Commission for Air Quality Management in National Capital Region and Adjoining Areas Ordinance, 2020** was promulgated in October, 2020.

It provides for constitution of a CAQM for better co-ordination, research, identification, and resolution of problems related to air quality in the **national capital region (NCR) and adjoining areas**.

Adjoining areas refers to areas in the states of Haryana, Punjab, Rajasthan, and Uttar Pradesh where any source of pollution may cause adverse impact on air quality in the NCR. Statement 2 is correct. The Commission is to be the sole authority with jurisdiction over matters defined in the Ordinance and in case of any conflict, the orders or directions of the Commission will prevail over the orders of the state governments (of Delhi, Haryana, Punjab, Rajasthan, and Uttar Pradesh), the Central Pollution Control Board (CPCB), state PCBs, and state-level statutory bodies.

Q.6) Which of the following institution has released the document **'Vision 2035: Public Health Surveillance in India'**?

- a) NITI Aayog
- b) Indian Council for Medical Research
- c) National Center for Disease Control
- d) World Health Organisation

Correct answer: A

Explanation: **NITI Aayog** recently released a white paper **Vision 2035 - Public Health Surveillance in India**. The white paper lays out India's vision for public health surveillance through the integration of the three-tiered public health system into Ayushman Bharat.

It also spells out the need for expanded referral networks and enhanced laboratory capacity. The building blocks for this vision are an interdependent federated system of governance between the Centre and states.

Q.7) Which of the following statement(s) is/are correct regarding the **Indian National Space Promotion and Authorization Center (IN-SPACe)**?

1. IN-SPACe is to work as a single window nodal agency for usage of ISRO facilities by Non-Government-Private-Entities (NGPEs).

10 PM Compilation for the Month of December, 2020

2. It is to oversee the space activities of NGPEs including building of launch vehicles and satellites

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

IN-SPACe is to act as an autonomous body, under **Department of Space**, as a single window nodal agency for enabling and regulating space activities and usage of ISRO facilities by NGPEs.

It will permit and oversee the following activities of **Non-Government-Private-Entities (NGPEs)**.

--Space activities including building of launch vehicles and satellites and providing space based services as per the definition of space activities.

Sharing of space infrastructure and premises under the control of ISRO with due considerations to on-going activities.

--Establishment of new space infrastructure and facilities, by NGPEs, in pursuance of space activities based on safety norms and other statutory guidelines and necessary clearances.

Initiation of launch campaign and launch, based on readiness of launch vehicle and spacecraft systems, ground and user segment.

Building, operation and control of spacecraft for registration as Indian Satellite by NGPEs and all the associated infrastructure for the same.

Q.8) Consider the following statements regarding the **eSanjeevani platform**:

- 1. It is an independent, browser-based application facilitating both doctor-to-doctor and patient-to-doctor tele-consultations.
 - 2. It has been developed by the Centre for Development of Advanced Computing (C-DAC).
- Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

The **eSanjeevani** is Government of India's flagship telemedicine technology developed by **Centre for Development of Advanced Computing (Mohali)**.

eSanjeevani is a platform independent, browser-based application facilitating both doctor-to-doctor and patient-to-doctor tele-consultations. It is being deployed nationally for the Ministry of Health & Family Welfare at 155,000 Health and Wellness Centres under Ayushman Bharat Scheme of Government of India.

Q.9) Consider the following statements:

- 1. Project Arth Ganga is aimed at promoting economic activities along the Ganga river bank.
- 2. Centre for Ganga River Basin Management and Studies (cGanga) is a statutory body under Ministry of Jal Shakti.

Which of the statements given above is/are correct??

10 PM Compilation for the Month of December, 2020

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The **Jal Marg Vikas Project (JMVP)** aimed to develop river Ganges as a safe mode of navigation and is being implemented with the technical and financial assistance of the World Bank. **'Project Arth Ganga'** envisages to re-engineer the JMVP by involving the local community with a focus on economic activities in and around the Ganga river.

Apart from providing benefits in terms of trade and access to markets, local community's economic enhancement and passenger facilitation, the 'Arth Ganga' project will also ensure large scale skills enhancement and public/private sector capability development.

Statement 2 is incorrect. **Centre for Ganga River Basin Management and Studies (cGanga)** is a think tank formed under the aegis of NMCG. The Centre is headquartered at IIT Kanpur and has representation from most leading science and technological institutes of the country.

cGanga's mandate is to serve as think-tank in implementation and dynamic evolution of Ganga River Basin Management Plan (GRBMP) prepared by the Consortium of 7 IITs.

The Norwegian Institute of Bioeconomy Research (NIBIO), has signed an MOU for development of sludge management framework in India, in collaboration with cGanga.

Q.10) Consider the following statements regarding the **Project 17A Ship 'Himgiri'**:

1. It is being built by in collaboration with France.
2. Project 17A ships use the gas turbine propulsion for thrust generation.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. Under the Project 17A program, a total of seven ships, **four at Mazagon Dock Shipbuilders Limited (MDL) and three ships at Garden Reach Shipbuilders & Engineers Ltd., GRSE** are being built with enhanced stealth features, advanced indigenous weapon and sensor fit along with several other improvements.

'Himgiri', the first of the three Project 17A ships being built at M/s Garden Reach Shipbuilders and Engineers Limited (GRSE), Kolkata was launched on 14 December 2020.

Statement 2 is correct. P17A ships are the first **gas turbine propulsion** and largest combat platforms ever built at GRSE.

Q.11) What was the mandate of the **Akhilesh Ranjan Task Force**?

- a) Direct Tax Code
- b) Reforms in Food Corporation of India
- c) GST Compensation for States
- d) Indirect Tax code

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: In order to review the **Income-tax Act, 1961** and to draft a new direct tax law in consonance with the economic needs of the country, a Task Force was constituted by the Government of India in November 2017.

The Government has appointed **Akhilesh Ranjan**, then Member (Legislation), CBDT as Convenor of the Task Force. The report is with the government but has not yet been made public.

Previously Kelkar Committee had submitted a report and then the draft new Direct Tax Code in 2008, that was also not implemented by the government.

Q.12) Consider the following statements regarding **Hygiene Rating in India**:

1. It is a certification system for food businesses supplying food directly to consumers, either on or off premise.
2. Food business owners with hygiene rating of 4/5 and the compliant to voluntary conditions are rated as 'Right Place to Eat'.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

Hygiene rating is a voluntary scheme of FSSAI applicable to food businesses supplying food directly to consumers either on or off the premises and food businesses are rated on the basis of food hygiene and safety conditions found at the time of inspection.

Hygiene + "Right Place to Eat": Hygiene rating of 4/5 and the compliance of voluntary conditions to be adopted by FBO will rate the FBO as Right Place to Eat. This will also enhance the commercial viability of an FBO and responsibility towards providing safe and nutritious food to consumers and promote sustainability.

Quality Council of India (QCI) at the behest of the FSSAI has come out with a Scheme for approval of Hygiene Rating Audit Agencies to scale up Hygiene Rating by increasing the number of recognised Hygiene Rating Audit Agencies in the country.

Q.13) Which of the following category is/are entitled to free legal aid under the **Legal Services Authority Act, 1987**?

1. A member of a Scheduled Caste or Scheduled Tribe
2. A victim of trafficking in human beings
3. A mentally ill or otherwise disabled person

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: **Section 12 of the Legal Services Authorities Act, 1987** prescribes the criteria for giving legal services to the eligible persons. It includes following categories:

--A member of a Scheduled Caste or Scheduled Tribe.

--A victim of trafficking in human beings or beggar as referred to in Article 23 of the Constitution.

10 PM Compilation for the Month of December, 2020

- A woman or a child.
- A mentally ill or otherwise disabled person.
- A person under circumstances of undeserved want such as being a victim of a mass disaster, ethnic violence, caste atrocity, flood, drought, earthquake or industrial disaster or
- An industrial workman

Q.14) Meghdoot Awards are given in which of the following category?

- a) Excellence in Postal Service
- b) Weather prediction system development
- c) Excellence in athletics
- d) Notable performance of public information officers

Correct answer: A

Explanation: With the view of recognizing outstanding performance by the **Postal service employees**, 'Meghdoot Award', presented at national level, was introduced in the year 1984 by the Department of Posts.

A cash award, Gold Medallion and a Citation are presented as Meghdoot Award. Keeping in view the nature of work for various levels, employees have been divided in the eight categories for presenting Meghdoot Award.

Mehdoot Awards 2020 were recently organised by the Department of Posts.

Q.15) Consider the following statements:

1. Fair and Remunerative Price (FRP) of sugarcane is decided on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP).
2. Government fixes the Minimum Selling Price (MSP) of white/refined sugar for sale by sugar mills at the factory gate for domestic consumption.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. 'Fair and Remunerative Price (FRP)' of sugarcane announced by the Central Government is decided on the basis of the recommendations of the **Commission for Agricultural Costs and Prices (CACP)** in consultation with the State Governments and after taking feedback from associations of sugar industry.

Statement 2 is correct. Price of sugar is market driven & depends on demand & supply of sugar. However, with a view to protect the interests of farmers, concept of **Minimum Selling Price (MSP)** of sugar has been introduced since 2018 so that industry may get atleast the minimum cost of production of sugar, so as to enable them to clear cane price dues of farmers.

Government fixes the **Minimum Selling Price (MSP)** of white/refined sugar for sale by sugar mills at the factory gate for domestic consumption. MSP of sugar has been fixed taking into account the components of Fair & Remunerative Price (FRP) of sugarcane and minimum conversion cost of the most efficient mills.

Q.16) Consider the following statements:

1. India is a member of the International Telecommunication Union (ITU).
2. The telecom spectrum auction is being conducted for validity period of 20 years by the Department of Telecommunications.

10 PM Compilation for the Month of December, 2020

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **International Telecommunication Union (ITU)** is the specialized agency of the United Nations on Telecommunications. India has been a member of ITU since 1869. The ITU has three sectors viz. Standardization, Radio, Development. For Asia Pacific regional coordination, it has a regional office in Bangkok. India is also a Member in the current council.

Statement 2 is correct. The spectrum licenses auctioned by DoT are valid for 20 years and can be renewed by the respective buyers.

The Union Cabinet has recently approved a proposal of the Department of Telecommunications to conduct spectrum auction through which spectrum will be assigned to the successful bidders for providing commercial mobile services.

The auction will be for spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz frequency bands. Spectrum will be offered for assignment for **validity period of 20 years**.

Q.17) Consider the following statements regarding the **Prime Ministers Special Scholarship Scheme (PMSSS)**:

1. The youths of J&K and Ladakh are supported by way of scholarship in two parts namely the academic fee & maintenance allowance under the scheme.
2. It is being implemented by the University Grants Commission (UGC).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The **Prime Ministers Special Scholarship Scheme** aims to build the capacities of the youths of J&K and Ladakh by Educating, Enabling and Empowering them to compete in the normal course. Under the Scheme, the youths of J&K and Ladakh are supported by way of scholarship in two parts namely the academic fee & maintenance allowance.

Statement 2 is incorrect. The Prime Minister's Special Scholarship Scheme (PMSSS) is being implemented by the **All-India Council for Technical Education (AICTE)**, New Delhi.

Q.18) Which of the following is/are among the reform(s) for States to adopt for being eligible for additional borrowing under the "**Scheme for Financial Assistance to States for Capital Expenditure**"?

1. Implementation of One Nation One Ration Card System
2. Urban Local body/ utility reforms
3. Power Sector reforms

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only

10 PM Compilation for the Month of December, 2020

d) All of the above

Correct answer: D

Explanation: The Government of India has identified four critical areas for reforms by the States:

- Implementation of One Nation One Ration Card System,
- Ease of doing business reform,
- Urban Local body/ utility reforms and
- Power Sector reforms.

States successfully completing the reforms are eligible to get two benefits. Such States get the facility of **additional borrowing equivalent to 0.25 percent of their Gross States Domestic Product (GSDP) for completing each reform**. Under this facility, additional borrowings of up to Rs.2.14 lakh crore is available to the States on completion of all the four reforms.

Further, States completing three out of the four reforms is additional funds assistance under the **“Scheme for Financial Assistance to States for Capital Expenditure”**. Under the scheme, an amount of Rs.2,000 crore is earmarked for the States that will complete at least three out of the four stipulated reforms.

Q.19) Consider the following statements regarding the **National Hydrology Project (NHP)**:

1. It is a Centrally Sponsored Scheme, with 50:50 cost shared between the States and Center.
2. It aims to improve the extent, quality, and accessibility of water resources information, decision support system for floods.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. **National Hydrology Project** (World Bank supported initiative of Ministry of Jal Shakti) is a Central Sector Scheme, with 100% grant to the States. Its Budget Outlay is about Rs3,680 Crore, with World Bank Assistance to the tune of 50% of the project cost.

Project Timeline: 8 years from 2016-17 to 2023-24.

Statement 2 is correct. Project Objective is to improve the **extent, quality, and accessibility of water resources information, decision support system** for floods and basin level resource assessment/planning and to strengthen the capacity of targeted water resources professionals and management institutions in India.

The Project, in its mid-term, has made significant progress in the fields of Water resource monitoring system, water resource information system (WRIS), water resource operation and planning systems and institutional capacity enhancement. Under the NHP, a nationwide repository of water resources data - NWIC has been established. NHP is focusing on establishment of real time data acquisition system (RTDAS) on pan India basis.

Q.20) Consider the following statements regarding the **National Security Directive on Telecommunication Sector**:

1. The list of the trusted source and product will be decided based on approval of a committee headed by the deputy national security advisor.

10 PM Compilation for the Month of December, 2020

2. The directive envisages a mandatory replacement of the existing equipment already inducted in the network of Telecom Service Providers.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The **Cabinet Committee on Security** has announced the National Security Directive on Telecommunication Sector, which will mandate service providers to purchase equipment from trusted sources.

The **list of the trusted source** and product will be decided based on approval of a committee headed by the **deputy national security advisor**. The committee will consist of members from relevant departments, ministries and will also have two members from the industry and independent experts. The committee will be called the **national security committee on telecom**.

Statement 2 is incorrect. Telecom service providers (TSPs) are required to connect **new devices** that are designated trusted products. The present directive does not envisage mandatory replacement of the existing equipment already inducted in the network of TSPs.

Q.21) Consider the following statements regarding the **Yogasana**:

- 1. The International Olympic Committee (IOC) has recognized it as a competitive sport.
- 2. The Khelo India programme have been organizing the Yogasana competition since 2017.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Both statements are incorrect.

The **Ministry of AYUSH and Ministry of Youth Affairs and Sports** announced the formal recognition of Yogasana as a competitive sport recently.

Minister of Sports stated that it is being planned to include Yogasana as a Sport discipline in Khelo India and in the University Games and we will also pitch it at the National Games.

The Secretary AYUSH gave a presentation and explained that the sports discipline of Yogasana is likely to have 51 medals in 4 events & 7 categories. The proposed events for both men and women include Traditional Yogasana, Artistic Yogasana (Single), Artistic Yogasana (Pair), Rhythmic Yogasana (Pair), Free Flow/Group Yogasana, Individual All Round – Championship and Team Championship.

Q.22) What is **E20 fuel**, for adoption of which the Ministry of Road Transport and Highways is seeking comments from the public?

- a) A blend of ethanol with gasoline
- b) An environment friendly third-generation biofuel
- c) Mixture of compressed natural gas and hydrogen
- d) Natural gas that is found trapped within shale formations

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: The **Ministry of Road Transport and Highways** is seeking comments from the public for adoption of E20 fuel, i.e, blend of 20% of ethanol with gasoline, as an automotive fuel and for the adoption of mass emission standards for this fuel.

The notification facilitates the development of E20 compliant vehicles. It will also help in reducing emissions of carbon dioxide, hydrocarbons, etc. It will help reduce the oil import bill, thereby saving foreign exchange and boosting energy security.

The compatibility of the vehicle to the percentage of ethanol in the blend of ethanol and gasoline shall be defined by the vehicle manufacturer and the same shall be displayed on the vehicle by putting a clearly visible sticker.

10 PM Compilation for the Month of December, 2020

INTERNATIONAL RELATIONS/ORGANISATIONS

Q.1) Which of the following country/organisation hosted the **Climate Ambition Summit 2020**?

- a) United Nations
- b) United Kingdom
- c) France
- d) All of the above

Correct answer: D

Explanation: The **United Nations, United Kingdom and France** are co-hosting the **Climate Ambition Summit 2020**, in partnership with Chile and Italy.

The Summit is a major step on the road to the next UN Climate Change Conference of the Parties (COP26), which will be hosted by the UK next November in Glasgow. The Summit provided leaders with a global platform to showcase commitments to tackle climate change which will be under the three pillars of the Paris Agreement: mitigation, adaptation and finance commitments.

India's Prime Minister stated that India is not only on track to achieve its Paris Agreement targets, but to exceed them beyond expectations. India has reduced its emission intensity by 21% over 2005 levels. Our solar capacity has grown from 2.63 GigaWatts in 2014 to 36 GigaWatts in 2020. Our renewable energy capacity is the fourth largest in the world.

It will reach 175 GigaWatts before 2022. And, India has an even more ambitious target now - 450 GigaWatts of renewable energy capacity by 2030.

Q.2) Which of the following institution has released the **Emission Gap Report 2020**?

- a) United Nations Environment Program
- b) Worldwide Fund for Nature
- c) Intergovernmental Panel for Climate Change
- d) United Nations Framework Convention on Climate Change

Correct answer: A

Explanation: The **UNEP Emissions Gap Report** provides a yearly review of the difference between where greenhouse emissions are predicted to be in 2030 and where they should be to avoid the worst impacts of climate change.

--despite a brief dip in carbon dioxide emissions caused by the COVID-19 pandemic, the world is still heading for a temperature rise in excess of 3°C this century – far beyond the Paris Agreement goals of limiting global warming to well below 2°C and pursuing 1.5°C.

--a low-carbon pandemic recovery could cut 25 per cent off the greenhouse emissions expected in 2030, based on policies in place before COVID-19. Such a recovery would far outstrip savings foreseen with the implementation of unconditional Nationally Determined Contributions under the Paris Agreement, and put the world close to the 2°C pathway.

Q.3) Which of the following institution has released the report “**Impact of the COVID-19 Pandemic on Trade and Development**”?

- a) World Trade Organisation
- b) United Nations Conference on Trade and Development (UNCTAD)
- c) Asian Development Bank (ADB)
- d) Organisation for Economic Co-operation and Development

10 PM Compilation for the Month of December, 2020

Correct answer: B

Explanation: United Nations Conference on Trade and Development (UNCTAD) has released a report titled “Impact of the COVID-19 Pandemic on Trade and Development: Transitioning to a New Normal”.

It projects that the global economy would contract 4.3 per cent this year due to the pandemic. It warned the crisis could send an additional 130 million people into extreme poverty.

Further, the United Nations’ Sustainable Development Agenda 2030 could be derailed unless immediate policy actions are taken.

Q.4) Which of the following was/were the event(s) leading up to the **India-Pakistan War of 1971**?

1. Awami League launched non-cooperation and civil disobedience movement
2. Pak Army launched ‘Operation Searchlight’
3. Pakistan Air Force carried out pre-emptive air strikes on Indian airfields

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Causes and events leading up to the **1971 India-Pakistan war:**

--Mass genocide & atrocities by Pakistan Army of their people in East Pakistan

--Cultural & economic domination of West Pakistan over East Pakistan

--Awami League launched non-cooperation and civil disobedience movement after General Elections of December 1970

--25 March 1971: Pak Army launched ‘Operation Searchlight’ to quell the autonomy movement committing atrocities against unarmed Bengalis

--Millions of refugees from East Pakistan took shelter in India

--Mukti Bahini stepped up guerilla warfare

--PAF carried out pre-emptive air strikes on five Indian airfields on 03 December 1971 starting a full scale war

Q.5) Consider the following statements:

1. India and the New Development Bank (NDB) have signed a loan agreement for ‘supporting India’s economic recovery from COVID-19’.
2. India and the World Bank have signed a \$400 million project to provide social assistance to the poor and vulnerable households of India, impacted by the COVID-19.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The Government of **India and the New Development Bank (NDB)** today signed a loan agreement for lending \$1,000 million for ‘supporting India’s economic recovery from COVID-19’ by supporting expenditures on rural infrastructure related to natural resource management (NRM) and rural employment

10 PM Compilation for the Month of December, 2020

generation under Government of India's Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).

Statement 2 is correct. The Government of **India and the World Bank** today signed a \$400 million project to support India's efforts at providing social assistance to the poor and vulnerable households, severely impacted by the COVID-19 pandemic.

This is the second operation in a programmatic series of two. The first operation of \$750 million was approved in May 2020. The programme will strengthen the capability of state and national governments in India to provide coordinated and adequate social protection to the poor and vulnerable from the shocks triggered by the COVID-19 pandemic.

Q.6) Consider the following statements regarding **India-United Kingdom** trade relations:

1. India have had a continuous trade surplus with United Kingdom in past five years.
2. India and United Kingdom have signed a free trade agreement called Broad-based Trade and Investment Agreement (BTIA).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The **UK is among the few countries with which India has a trade surplus** and both nations share a trade relation of over \$15 billion annually.

Country: U K

S.No.	(Year)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
1.	EXPORT	8,828.48	8,530.07	9,691.07	9,309.29	8,737.85
2.	IMPORT	5,192.54	3,664.96	4,806.75	7,561.93	6,712.63
3.	TOTAL TRADE	14,021.02	12,195.03	14,497.82	16,871.22	15,450.49
4.	TRADE BALANCE	3,635.95	4,865.11	4,884.32	1,747.35	2,025.22

Statement 2 is incorrect. India and the UK recently agreed on key elements of a **10-year roadmap** to enhance their relationship and pledged to fast track talks on a free trade agreement.

India had earlier been negotiating a broad-based trade and investment agreement (BTIA) with the **EU**. Although talks on India-EU BTIA started in 2007, it has been stuck in issues including market access for automobiles and alcohol and inclusion of labour and environment matters in the pact.

Q.7) Consider the following statements regarding the **Human Development Report 2020**:

1. It has been released by the World Bank.
2. India ranked 131 among 189 countries on the Human Development Index (HDI).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: B

Explanation: Statement 1 is incorrect. 2020 Human Development Report, '**The Next Frontier: Human Development and the Anthropocene**' has been published by the Human Development Report Office of the United Nations Development Programme.

Statement 2 is correct. India ranked **131 among 189 countries** on the Human Development Index (HDI) for 2019, slipping two places from the previous year, according to the Human Development Report (HDR) 2020.

India's HDI value for 2019 is 0.645, which put the country in the medium human development category, positioning it at 131 out of 189 countries and territories. Between 1990 and 2019, India's HDI value increased from 0.429 to 0.645, an increase of 50.3%.

Norway topped the index, followed by Ireland, Switzerland, Hong Kong and Iceland complete the top five.

Q.8) Which of the following institution(s) have published the **Human Freedom Index 2020**?

- a) Amnesty International
- b) Concern Worldwide and Welthungerhilfe
- c) United Nations Development Programme
- d) Cato Institute and the Fraser Institute

Correct answer: D

Explanation: The **Human Freedom Index** presents the state of human freedom in the world based on a broad measure that encompasses personal, civil, and economic freedom. The report is co-published by the **Cato Institute and the Fraser Institute**.

The Human Freedom Index 2020, which uses data from 2008 to 2018, by the Cato Institute in the United States and Fraser Institute in Canada, noted a decrease in personal freedoms since 2008 globally.

The jurisdictions that took the top 10 places, in order, were New Zealand, Switzerland, Hong Kong, Denmark, Australia, Canada, Ireland, Estonia, and Germany and Sweden (tied in 9th place).

India ranks at 111 out of 162 countries, China at 129 rank, Bangladesh at 139 and Pakistan at 140.

Q.9) Consider the following statements regarding the **Australian Square Kilometre Array Pathfinder (ASKAP)**:

- 1. It makes images of radio signals from the sky, allowing astronomers to view the Universe at wavelengths that our eyes cannot see.
- 2. It uses many antennas acting together as one large telescope.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

The **Australian Square Kilometre Array Pathfinder (ASKAP)** is a new type of radio telescope designed and built by Commonwealth Scientific and Industrial Research Organisation (CSIRO).

The ASKAP telescope makes images of radio signals from the sky, allowing astronomers to view the Universe at wavelengths that our eyes cannot see.

10 PM Compilation for the Month of December, 2020

It is a type of radio telescope known as an **'interferometer'**. This means it uses many antennas acting together as one large telescope. ASKAP is an array of 36 dish antennas each with a diameter of 12 metres and linked by fibre-optic cable, the antennas work together as one telescope.

ASKAP is located on the traditional lands of the Wajarri people in Western Australia.

It has mapped over three million galaxies in a record 300 hours during its first all-sky survey. The initial results of this survey were published recently.

Q.10) Which of the following institution has released the **Global Health Estimates 2019**?

- a) World Health Organization
- b) Coalition for Epidemic Preparedness Innovations
- c) Gavi, The Vaccine Alliance
- d) International Vaccine Institute

Correct answer: A

Explanation: **World Health Organisation's Global Health Estimates (GHE)** provide the latest available data on death and disability globally, by region and country, and by age, sex and cause. The latest updates include global, regional and country trends from 2000 to 2019 inclusive.

--Life expectancy has increased by more than 6 years between 2000 and 2019 – from 66.8 years in 2000 to 73.4 years in 2019.

--Noncommunicable diseases make up 7 of the world's top 10 causes of death. This is an increase from 4 of the 10 leading causes in 2000.

--Ischaemic heart disease, Stroke, Chronic obstructive pulmonary disease, Lower respiratory infections, Neonatal conditions, Trachea, bronchus and lung cancers, Alzheimer disease, Diarrheal diseases, Diabetes mellitus and Kidney diseases are the top ten causes of death globally.

Q.11) The **San Isidro Movement** relates to which of the following country?

- a) Brazil
- b) Cuba
- c) Argentina
- d) Chile

Correct answer: B

Explanation: **Cuba's San Isidro Movement (MSI)** started in September 2018, when the Cuban government sought to enforce Decree 349, a law that would have given powers to the nation's Culture Ministry to restrict cultural activity it did not approve of. This would essentially make it illegal for artists to work without being registered.

It brings together ghetto rappers, design professors, dissident poets, art specialists, scientists and regular citizens.

Q.12) Which of the following organization has launched the **Asia Pacific Vaccine Access Facility (APVAX)**?

- a) Asian Development Bank
- b) World Health Organisation
- c) Bill & Melinda Gates Foundation
- d) Shanghai Cooperation Organization

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: Asian Development Bank (ADB) has launched \$9 billion COVID-19 vaccine initiative, the Asia Pacific Vaccine Access Facility, or APVAX.

The Rapid Response Component will provide timely support for critical vaccine diagnostics, procurement of vaccines, and transporting vaccines from the place of purchase to ADB's developing members.

The Project Investment Component will support investments in systems for successful distribution, delivery, and administration of vaccines along with associated investments in building capacity, community outreach, and surveillance. This may include such areas as cold-chain storage and transportation, vehicles, distribution infrastructure, processing facilities, and other physical investments.

Q.13) Which of the following organisation has released the '2020 State of the Education Report for India: Vocational Education First'?

- a) Central Board of Secondary Education
- b) United Nations Educational, Scientific and Cultural Organization
- c) NITI Aayog
- d) National Skill Development Corporation

Correct answer: B

Explanation: The 'State of the Education Report for India 2020: Technical and Vocational Education and Training (TVET)', was launched virtually recently by UNESCO New Delhi.

The State of the Education Report for India, is one of UNESCO New Delhi's flagship reports to be published annually. Its main objective will be to monitor progress towards the education targets in the Sustainable Development Goals (SDGs). The second edition of the State of Education Report focuses on technical and vocational education and training (TVET).

The Report provides an overview of the present capacity for TVET provision through short-term and long-term courses, by state as well as non-state actors, and also through educational institutions such as schools, colleges and universities. It discusses previous education policies, and the approach to TVET provision in the light of the priorities of the country as reflected in NEP 2020.

Q.14) The Champions of the Earth award is an initiative of which of the following organisation?

- a) United Nations Environment Programme
- b) United Nations Framework Convention on Climate Change
- c) Intergovernmental Panel on Climate Change
- d) International Union for Conservation of Nature

Correct answer: A

Explanation: The UN Environment Programme's Champions of the Earth award is the UN's highest environmental honor that recognizes outstanding leaders from government, civil society and the private sector whose actions have a transformative impact on the environment.

Since 2005, Champions of the Earth has recognized 93 laureates, ranging from world leaders to technology inventors. They include 22 world leaders, 57 individuals and 14 groups or organizations.

The UN Environment Programme (UNEP) recently named seven young scientists, engineers, entrepreneurs and activists from across the globe as its 2020 Young Champions of the Earth.

10 PM Compilation for the Month of December, 2020

The Young Champions of the Earth prize is awarded every year to seven entrepreneurs under the age of 30 with bold ideas for sustainable environmental change.

Q.15) Which of the following city(s) falls on the **India-Myanmar-Thailand Trilateral Highway?**

1. Moreh
2. Mandalay
3. Mae Sot

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: The 1360 kms long India-Myanmar-Thailand Trilateral Highway is an initiative pertaining to India, Myanmar and Thailand. It traverses from **Moreh in Manipur to Mae Sot in Thailand through Mandalay in Myanmar.**

At the India-Bangladesh Virtual Summit recently Bangladesh Prime Minister expressed keen interest in the ongoing India Myanmar Thailand trilateral highway project and sought support of India for enabling Bangladesh to connect with this project with a view to enhance connectivity between the regions of South and South East Asia.



Q.16) Consider the following statements regarding the **Coalition for Disaster Resilient Infrastructure (CDRI)**:

1. It was launched by India at the 2015 United Nations Climate Change Conference in Paris.
2. It is a treaty based intergovernmental organisation.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Statement 1 is incorrect. The **CDRI** was launched by the Prime Minister of India during his speech at the **UN Climate Action Summit** on 23 September 2019.

10 PM Compilation for the Month of December, 2020

The Prime Minister had initially announced India's intention to work with partner countries and key stakeholders to form a coalition working towards the goal of improving the disaster resilience of infrastructure at the Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) held in November 2016 in New Delhi.

Statement 2 is incorrect. CDRI is a multi-stakeholder global partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and academic and knowledge institutions.

At present, it is **not an intergovernmental organization**, which are ordinarily treaty-based organizations.

Union Minister for Health and Family Welfare digitally addressed an event by Coalition for Disaster Resilient Infrastructure (CDRI) and UN Office for Disaster Risk Reduction (UNDRR) recently. The theme of the event was "Build Back Better: building resilient health infrastructure and supply chains."

10 PM Compilation for the Month of December, 2020

GEOGRAPHY/ENVIRONMENT

Q.1) Which of the following is/are **invasive species** in the Shola forests of Nilgiris?

1. Eucalyptus
2. Acacia

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: The **Shola vegetation** are tropical montane forests found in the Western Ghats separated by rolling grasslands in high altitudes.

Most species such as **Eucalyptus, Wattle (Acacia), introduced from Australia**, have become highly invasive. Introduced about four centuries ago to create tannin in the Nilgiris have colonised the grasslands extensively and encroached upon the adjoining shola forests.

Q.2) Which of the following river(s) is/are tributary of the **Brahmaputra River**?

1. Kameng River
2. Subansari River
3. Kopili River

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: **Brahmaputra River** originates from Kailash ranges of Himalayas at an elevation of about 5150 m and flows for about 2900 km through Tibet (China), India and Bangladesh and joins the Ganga. The river Brahmaputra receives a number of tributaries at its north and south banks, in the catchment area in India.

Tributaries from North bank	Tributaries from South bank
The Jiadhal	The Noa Dehing
The Subansiri	The Buridehing
The Siang	The Debang
The Kameng (Jiabharali in Assam)	The Dikhow
The Dhansiri(North)	The Dhansiri(S)
The Puthimari	The Kopili
The Pagladiya	The Digaru
The Manas	The Dudhnai
The Champamati	The Krishnai
The Saralbhanga	
The Aie	
The Sankosh	

China has announced that it is planning to build a major hydropower project as a part of its 14th Five-Year Plan (2021-25), on the Yarlung Zangbo River (upper stream of the Brahmaputra) in Tibet.

10 PM Compilation for the Month of December, 2020

Q.3) Consider the following statements regarding **Himalayan Serow**:

1. It is an herbivore animal.
2. Serows are protected under the Schedule I of the Wildlife Protection Act, 1972.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Himalayan serows (Capricornis sumatraensis thar)** are herbivores, and are typically found at altitudes between 2,000 metres and 4,000 metres (6,500 to 13,000 feet). They are known to be found in eastern, central, and western Himalayas, but not in the Trans Himalayan region.

It was recently spotted by locals and wildlife officials at a riverside rocky wall near Hurling village in Spiti, Himachal Pradesh.

Statement 2 is correct. **Serow (Capricornis sumatraensis)** is protected under the Schedule I of Wildlife Protection Act, 1972.

Capricornis sumatraensis is also listed as Vulnerable specie in the IUCN Red list.

Q.4) The **Myristica swamp treefrog** can be found in which geographic region of India?

- a) Western Ghats
- b) Shivalik range of Himalaya
- c) North East India
- d) Aravali Hills

Correct answer: A

Explanation: **Myristica swamp treefrog** is a rare arboreal species endemic to the Western Ghats. It bears the scientific name *Mercurana myristicapalustris* and recently has been recorded for the first time north of the Shencottah gap in the **Vazha-chal Reserve Forest** in Kera-la's Thrissur district.

The frog was first spotted in 2013 in the Myristica swamps of Arippa, near the Kulathupuzha Reserve For-est, in the western foothills of Agasthyamalai, in Kollam district. These frogs are rare and elu-sive for the reason that they are arboreal and active only for a few weeks during their breeding season.

Q.5) The **Lubombo Mountains** are in which of the following country(s)?

1. South Africa
2. Eswatini
3. Namibia

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: A

Explanation: **Lebombo Mountains**, long, narrow mountain range in **South Africa, Eswatini/Swaziland, and Mozambique**, southeastern Africa. It is about 500 miles (800 km) long and consists of volcanic rocks.

10 PM Compilation for the Month of December, 2020



Q.6) Where is the **R Cluster of the KGD6** basin located?

- a) Off the Kakinada coast
- b) Offshore of Mumbai
- c) Malabar Coast
- d) Konkan coast

Correct answer: A

Explanation: Reliance Industries Limited (RIL) and British multinational oil and gas major BP Plc have announced their first gas finding in what is Asia's deepest offshore field. The combine has struck gas at the ultra-deep-water gas field called **R Cluster of the Krishna Godavari (KG) D6 basin**. Other than this, the combine is also developing two more deep-water gas fields in KG D6 block, called the Satellites Cluster and MJ.

The field (R cluster) is located about 60 kilometers from the existing KG D6 Control & Riser Platform (CRP) off the Kakinada coast and comprises a subsea production system tied back to CRP via a subsea pipeline.

The Krishna-Godavari basin covers an area of 15,000 sq. km onshore and 25,000 sq. km in the Bay of Bengal



Q.7) The **Kushiyara River** is a trans-boundary river between India and which of the following country?

- a) Bangladesh
- b) Nepal
- c) Myanmar
- d) Bhutan

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: The **Kushiyara River is a distributary river** in Bangladesh and Assam, India. It forms on the India-Bangladesh border as a branch of the **Barak River**, when the Barak separates into the Kushiyara and Surma. The Kushiyara flows westward forming the boundary between Assam, India, and the Sylhet District of Bangladesh.

At the India-Bangladesh Virtual Summit Bangladesh requested India to inform its border authorities to allow excavation work of the remaining portion of the Rahimpur Khal for utilization of Kushiyara River waters for irrigation purposes. India was also requested to provide early concurrence on the proposed MoU to be signed between the two countries for monitoring the withdrawal of water from the Kushiyara River by both the sides, pending signing of the Treaty/Agreement regarding sharing of water of the Kushiyara River.

Q.8) Turkey is bordered by which of the following country(s)?

1. Iran
2. Armenia
3. Syria

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Turkey is bounded on the north by the Black Sea, on the northeast by **Georgia** and **Armenia**, on the east by **Azerbaijan** and **Iran**, on the southeast by **Iraq** and **Syria**, on the southwest and west by the Mediterranean Sea and the Aegean Sea, and on the northwest by **Greece** and **Bulgaria**.



Created with love ❤ by ForumIAS- the knowledge network for civil services.
Visit academy.forumias.com for our mentor based courses.

10 PM Compilation for the Month of December, 2020

POLITY

Q.1) Consider the following statements regarding **Parliamentary procedure**:

1. Standing Committees are permanent and regular committees constituted from time to time in pursuance of the Rules of Procedure.
2. Ad hoc Committees are appointed for a specific purpose and they cease to exist when they finish the task assigned to them and submit a report.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Most of the business of Parliament is, therefore, transacted in Committees of the House, known as Parliamentary Committees.

Statement 1 is correct. **Standing Committees** are permanent and regular committees which are constituted from time to time in pursuance of the provisions of an Act of Parliament or Rules of Procedure and Conduct of Business in Lok Sabha/Rajya Sabha. The work of these Committees is of continuous nature. The Financial Committees, DRSCs and some other Committees come under the category of Standing Committees.

Statement 2 is correct. **Ad hoc Committees** are appointed for a specific purpose and they cease to exist when they finish the task assigned to them and submit a report. The principal Ad hoc Committees are the Select and Joint Committees on Bills.

Q.2) Consider the following statements:

1. Indian Administrative Service and Indian Police Service are deemed to be services created by Parliament under the Constitution.
2. Members of civil service cannot be dismissed or removed by an authority subordinate to that by which they were appointed.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. As per **article 312(2) of the Constitution** the Indian Administrative Service and the Indian Police Service shall be deemed to be services created by Parliament under this article.

Statement 2 is correct. **Article 311 of Constitution** of India deals with Dismissal, removal or reduction in rank of persons employed in civil capacities under the Union or a State.

According to article 311, no person who is a member of a civil service of the Union or an all-India service or a civil service of a State or holds a civil post under the Union or a State shall be dismissed or removed by an authority subordinate to that by which he was appointed.

Q.3) Consider the following statements:

1. Right to protest is explicitly guaranteed as a fundamental right under the Constitution of India.

10 PM Compilation for the Month of December, 2020

2. State can make laws providing reasonable restrictions on the exercise of the fundamental right to assemble peacefully in interest of public order.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. The right to protest is **not explicitly** mentioned under the constitution. It is derived from the right to free speech and expression [19(1) (a)]; and right to assemble peacefully without arms [19(1) (b)].

Statement 2 is correct. Article 19 (3) provides that State can make any law imposing, in the interests of the sovereignty and integrity of India or **public order**, reasonable restrictions on the exercise of the right to assemble peacefully and without arms.

10 PM Compilation for the Month of December, 2020

SCIENCE & TECHNOLOGY

Q.1) Which of the following statement correctly defines the term **Epigenetics**?

- Study of changes in heritable changes in gene expression due to change in DNA sequence
- Study of heritable changes in gene expression that do not involve changes to DNA sequence
- Genetic variation resulting in the several different forms of individuals in a single species
- Large-scale study of proteomes

Correct answer: B

Explanation: **Epigenetics** literally means "above" or "on top of" genetics. It refers to external modifications to DNA that turn genes "on" or "off." These modifications do not change the DNA sequence, but instead, they affect how cells "read" genes. Unlike genetic changes, epigenetic changes are reversible.

It is therefore, the study of heritable changes in gene expression (active versus inactive genes) that do not involve changes to the underlying DNA sequence — a change in phenotype without a change in genotype — which in turn affects how cells read the genes.

Q.2) Which of the following is/are **malaria parasites** that infect humans?

- Plasmodium falciparum
- Plasmodium vivax
- Plasmodium ovale

Select the correct answer using the code given below:

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- All of the above

Correct answer: D

Explanation: Four kinds of malaria parasites infect humans: **Plasmodium falciparum, P. vivax, P. ovale, and P. malariae**. In addition, *P. knowlesi*, a type of malaria that naturally infects macaques in Southeast Asia, also infects humans, causing malaria that is transmitted from animal to human ("zoonotic" malaria).

P. falciparum is the type of malaria that is most likely to result in severe infections and if not promptly treated, may lead to death. Although malaria can be a deadly disease, illness and death from malaria can usually be prevented.

Recently it was reported that a soldier in Kerala is believed to have contracted Plasmodium ovale during his posting in Sudan.

Q.3) Consider the following statements regarding the **Geminids**:

- These are annual meteor showers observed in month of December.
- These meteors originate from Ceres in the asteroid belt between Mars and Jupiter.

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: Statement 1 is correct. The **Geminids** are widely recognized as the best annual meteor shower, occurring between Dec. 4 to Dec. 17.

Statement 2 is incorrect. The **parent of the Geminids is 3200 Phaethon**, which is arguably considered to be either an asteroid or an extinct comet. When the Earth passes through trails of dust, or meteoroids, left by 3200 Phaethon, that dust burns up in Earth's atmosphere, creating the Geminid meteor shower.

All meteors associated with a shower have similar orbits, and they all appear to come from the same place in the sky, which is called the radiant. The Geminids appear to radiate from a point in the constellation Gemini, hence the name "Geminids."

Q.4) Which of the following is/are correctly matched?

1. S-400 Triumph - Russia
2. THAAD - United States of America

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Option 1 is correctly matched. The **S-400 Triumph** is an air defence missile system developed by Almaz Central Design Bureau of Russia. The new system replaced the S-300P and S-200 air defence systems of the Russian Army. The S-400 was developed as an upgrade of the S-300 series of surface-to-air missile systems.

In October 2018, Rosoboronexport signed a **contract with India to deliver S-400 missile system**. China and Turkey are other buyers of the system from Russia.

Option 2 is correctly matched. **Terminal High Altitude Area Defense** is a transportable, ground-based missile defense system. It has been designed and manufactured by the US company Lockheed Martin. Terminal High Altitude Area Defense is a transportable, ground-based missile defense system.

Q.5) Which of the following **frequency spectrum** is/are used in **cellular communication** networks?

1. 900MHz
2. 1800MHz
3. 2100MHz

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Commonly used bands for cellular communication are **800MHz, 900MHz, 1800MHz, 2100MHz, and 2300MHz**. Beyond that are the unlicensed bands used for technology such as Wi-Fi and Bluetooth - Wi-Fi used to be 2.4GHz (2400MHz) and has started to shift to the 5GHz band.

The Union Cabinet has approved a proposal of the Department of Telecommunications to conduct spectrum auction through which spectrum will be assigned to the successful bidders for providing commercial mobile services.

10 PM Compilation for the Month of December, 2020

The auction will be for spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz frequency bands.

Q.6) Consider the following statements regarding **frequency spectrums**:

1. Unlicensed frequency bands have limited applications and are designated for certain specific types of use.
2. The frequency band for FM radio is about 88 to 108 MHz.

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: At the broadest level, spectrum is regulated in two ways, it is either managed through a spectrum licence or it is licence exempt (i.e. unlicensed).

The vast majority of radio spectrum is licensed and encompasses a range of technologies that operate with enough power to allow the services to cover a relatively wide area.

Licence holders include commercial organisations, such as TV and radio broadcasters or mobile operators, and non-commercial organisations, such as the emergency services and the military.

The frequency band for FM radio is about 88 to 108 MHz.

Unlicensed frequency bands have more limited applications and are designated for certain specific types of use. There is no need for a licence from the regulator as long as the devices used meet certain technical standards in order to minimise interference.

The most notable examples of **'unlicensed' technologies** are Wi-Fi and Bluetooth, which both operate in the 2.4 GHz band, other examples are cordless telephones, baby monitors, car key fobs and garage door openers.

Q.7) Consider the following statements regarding the **CMS-01** satellite launched by ISRO recently:

1. It is an Earth Observation Satellite aimed at environmental monitoring.
2. It is to be placed in the Geostationary orbit.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. India's **communication satellite CMS-01** was successfully launched by PSLV-C50 on Wednesday December 17, 2020 from the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota.

The CMS-01 is envisaged to provide services in the **Extended-C Band** of the frequency spectrum whose coverage will include the Indian mainland, Andaman-Nicobar and Lakshadweep Islands. The satellite will be the first in a new series of communication satellites by India after the GSAT and INSAT series.

Statement 2 is correct. After injection, the solar panels of CMS-01 were automatically deployed and ISRO's Master Control Facility at Hassan has assumed the control of the satellite. In the coming days, orbit raising manoeuvres will be executed to position the satellite in the **Geostationary Orbit** at its designated location.

10 PM Compilation for the Month of December, 2020

Q.8) Consider the following statements regarding the **Project Loon**:

1. It aims to provide internet connectivity to remote parts of the world.
2. It has been launched by the aerospace company SpaceX.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. **Project Loon**, which comprises of helium-filled balloons that aim to deliver internet access to remote parts of the world. These high-altitude balloons are found in the stratosphere and create aerial wireless networks.

Statement 2 is incorrect. Project Loon belongs to **Alphabet's moonshot company X**. (Alphabet is parent company of Google).

Last year, the subsidiary announced that its balloons reached 1 million hours of stratospheric flight. And in October, it was revealed that Loon set a new record for the longest stratospheric flight by staying in air for 312 days.

The balloons navigate up or down in the altitude to catch a favorable wind current that takes them to the desired direction. There is no manual control on when the helium balloons will ascend or descend. So, this decision is taken by the data mined by sophisticated algorithms.

Q.9) Consider the following statements regarding the **DRDO Airborne Early Warning and Control (AEW&C)** system:

1. It is a system for detecting & tracking of hostile aircrafts or Unmanned Aerial Vehicles.
2. The Netra AEW&C system operated by Indian Air Force uses Embraer aircraft as jet platform.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The **DRDO Airborne Early Warning & Control System (AEW&C)**, is a force multiplier system of systems for detecting & tracking of enemy/hostile aircrafts/ UAVs etc. It also enables operators onboard and on ground to identify, assess the threat and take actions to guide our interceptors to those for neutralizing those threats.

Statement 2 is correct. The jet platform selected for the DRDO AEW&C Netra system is the **Embraer EMB-145**.

The Ministry of Defence recently approved a proposal in which Defence R&D Organisation (DRDO) will integrate airborne early warning radars and sensor on six Airbus A320 commercial airliners from national carrier Air India's current fleet. The six aircraft are to be sent to France, where they will be refurbished and modified to Indian Air Force/DRDO specifications.

Q.10) Consider the following statements regarding **ACE2 receptors**:

1. It is found on the cells and tissues of heart and lungs.
2. It provides entry point to SARS-CoV-2 to infect the human body.

10 PM Compilation for the Month of December, 2020

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

ACE2 is a protein on the surface of many cell types. It is an enzyme that generates small proteins – by cutting up the larger protein angiotensinogen – that then go on to regulate functions in the cell.

ACE2 is present in many cell types and tissues including the **lungs, heart, blood vessels, kidneys, liver and gastrointestinal tract**. It is present in epithelial cells, which line certain tissues and create protective barriers.

Using its **spike proteins the SARS-CoV-2** binds to the ACE2 receptors which acts as a doorway for the virus to enter the human body.

When the SARS-CoV-2 virus binds to ACE2, it prevents ACE2 from performing its normal function to regulate ANG II signaling. Thus, ACE2 action is “inhibited,” removing the brakes from ANG II signaling and making more ANG II available to injure tissues. This “decreased braking” likely contributes to injury, especially to the lungs and heart, in COVID-19 patients.

Q.11) 'Solarwinds hack' have been in news recently, what is it?

- a) A cyber theft attempted on Iran's nuclear program
- b) A cyber-attack targeted at US government agencies
- c) A potential methodology for exploiting Solar and Wind energies for generating electricity
- d) A device to record the events of solar flares entering Earth's atmosphere

Correct answer: B

Explanation: The '**SolarWinds hack**', a cyberattack recently discovered in the United States, has emerged as one of the biggest ever targeted against the US government, its agencies and several other private companies.

This is being called a 'Supply Chain' attack: Instead of directly attacking the federal government or a private organisation's network, the hackers target a third-party vendor, which supplies software to them. In this case, the target was an IT management software called Orion, supplied by the Texas-based company SolarWinds.

Q.12) Which of the following causes the Alpha-gal Syndrome?

- a) Eating red meat
- b) Reaction to antibiotics
- c) A symptom of Long Covid
- d) Allergy to lactose

Correct answer: A

Explanation: Alpha-gal syndrome (AGS) (also called alpha-gal allergy, red meat allergy, or tick bite meat allergy) is a serious, potentially life-threatening allergic reaction. AGS may occur after people eat **red meat** or are exposed to other products containing alpha-gal.

The US Food and Drug Administration (FDA) recently approved a first-of-its-kind intentional genomic alteration (IGA) in a line of domestic pigs referred to as GalSafe pigs. It aims to eliminate a type of sugar found in mammals called alpha-gal.

10 PM Compilation for the Month of December, 2020

ECONOMICS

Q.1) What is **e-Kuber**?

- The Core Banking Solution platform of RBI
- The Dematerialized account database of SEBI
- Foreign Exchange account of RBI
- State Government's account with the RBI

Correct answer: A

Explanation: E-kuber is the core banking solution of the RBI that gives high degree of access to commercial banks and other institutions to their current account with the RBI. Several financial engagements like the auction of Government securities are done through e-kuber system.

Core Banking Solutions (CBS) is a facility or arrangement that helps banks to offer large number of customer-centric services on a 24×7 basis from a single location. The core banking solution can support retail as well as corporate banking activities.

It enables banks access with their current account at any time, everywhere across the country. The e-kuber is used by the RBI to execute various transactions with banks. Utility of e-kuber is that it is used to conduct exercises like auctioning of government securities.

Q.2) Consider the following statements:

- Central Government cannot issue dated securities and the State Governments cannot issues treasury bills.
- State Development Loans (SDLs) are dated securities issued by State Governments to raise loans from the market.

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. A **Government Security (G-Sec)** is a tradeable instrument issued by the Central Government or the State Governments.

It acknowledges the Government's debt obligation. Such securities are short term (usually called treasury bills, with original maturities of less than one year) or long term (usually called Government bonds or dated securities with original maturity of one year or more).

In India, the **Central Government issues both**, treasury bills and bonds or dated securities while the **State Governments issue only bonds or dated securities**.

Statement 2 is correct. State Governments also raise loans from the market which are called **State Development Loans (SDLs)**. SDLs are dated securities issued through normal auction similar to the auctions conducted for dated securities issued by the Central Government.

Q.3) Consider the following statements regarding the **Real Time Gross Settlement (RTGS)** System in India:

- It is an electronic fund transfer system in which the transactions received up to a particular time are processed in batches.
- It can receive and process transactions only during working hours of the banks.

Which of the statements given above is/are correct?

- 1 only

10 PM Compilation for the Month of December, 2020

- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Statement 1 is incorrect. **Real Time Gross Settlement (RTGS)** is a system where there is continuous and real-time settlement of fund-transfers, individually on a transaction-by-transaction basis (without netting). 'Real Time' means the processing of instructions at the time they are received; 'Gross Settlement' means that the settlement of funds transfer instructions occurs individually.

National Electronic Funds Transfer (NEFT) System is an electronic fund transfer system in which the transactions received up to a particular time are processed in batches.

Statement 2 is incorrect. The Real Time Gross Settlement System (RTGS) for high-value transactions has been made available **round-the-clock** recently, making India one of the few countries in the world to operate the system 24X7.

In December 2019, RBI had made the national electronic funds transfer (NEFT) available 24X7.

Q.4) Consider the following statements regarding **India's foreign trade this financial year (2020-21)** so far:

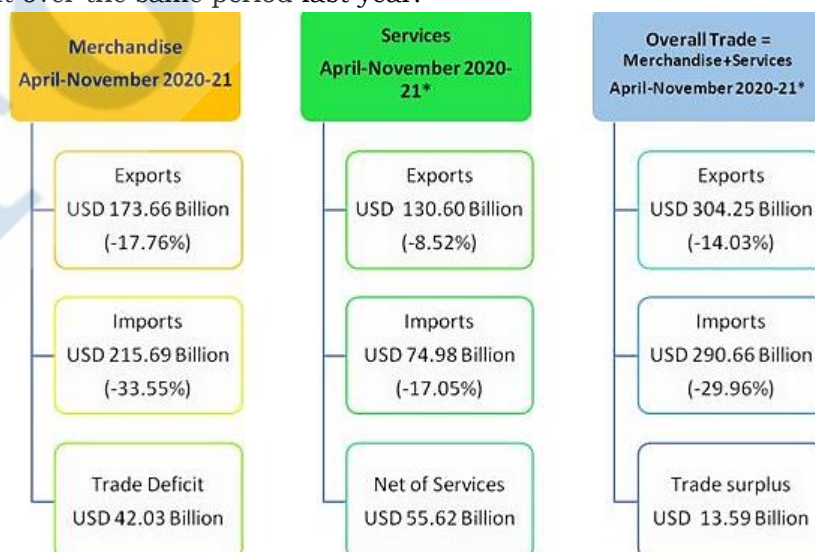
1. Compared to 2019-20, India's exports have fallen more than imports in percentage terms.
2. Taking merchandise and services together, India has an overall trade surplus for April-November 2020-21.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. India's overall exports (Merchandise and Services combined) in April-November 2020-21 are estimated to be USD 304.25 Billion, exhibiting a negative growth of (-) 14.03 per cent over the same period last year. Overall imports in April-November 2020-21 are estimated to be USD 290.66 Billion, exhibiting a negative growth of (-) 29.96 per cent over the same period last year.



10 PM Compilation for the Month of December, 2020

Statement 2 is correct. Taking merchandise and services together, overall trade surplus for April-November 2020-21 is estimated at USD13.59Billion as compared to the deficit of USD61.06Billion in April-November 2019-20.

Q.5) Who is the chairperson of the **Financial Stability and Development Council (FSDC)**?

- a) Governor, Reserve Bank of India
- b) Union Finance Minister
- c) Prime Minister
- d) Chief Economic Advisor to the Government of India

Correct answer: B

Explanation: With a view to strengthening and institutionalizing the mechanism for maintaining financial stability, enhancing inter-regulatory coordination and promoting financial sector development, the **Financial Stability and Development Council (FSDC)** was set up by the Government as the apex level forum in December 2010.

The Chairman of the Council is the **Finance Minister**, and its members include the heads of financial sector Regulators (RBI, SEBI, PFRDA, IRDA & FMC) Finance Secretary and/or Secretary, Department of Economic Affairs, Secretary, Department of Financial Services, and Chief Economic Adviser. The Council can invite experts to its meeting if required.

The **FSDC Sub-committee** has also been set up under the chairmanship of Governor, RBI. It meets more often than the full Council. All the members of the FSDC are also the members of the Sub-committee.

Q.6) Consider the following statements regarding the **flexible inflation targeting (FIT)** framework of Reserve Bank of India:

1. The inflation target is set by the Government of India, in consultation with the Reserve Bank, once in every five years.
2. RBI's flexible inflation targeting places price stability, in terms of Consumer Price Index inflation, as the primary objective of the monetary policy.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

India formally adopted **flexible inflation targeting (FIT) in June 2016** to place price stability, defined in terms of a target CPI inflation, as the primary objective of the monetary policy.

In May 2016, the Reserve Bank of India (RBI) Act, 1934 was amended to provide a statutory basis for the implementation of the flexible inflation targeting framework.

The amended RBI Act also provides for the inflation target to be set by the Government of India, in consultation with the Reserve Bank, once in every five years. Accordingly, the Central Government has notified in the Official Gazette **4 per cent Consumer Price Index (CPI) inflation** as the target for the period from August 5, 2016 to March 31, 2021 with the upper tolerance limit of 6 per cent and the lower tolerance limit of 2 per cent.

Q.7) Which of the following statement correctly defines the **Core Inflation**?

- a) An Inflation measure excluding volatile and transitory price changes
- b) An inflation measure of short-term price changes

10 PM Compilation for the Month of December, 2020

- c) Price changes in the core sector industries
- d) Inflation in the fuel and food commodities

Correct answer: A

Explanation: Core Inflation is a measure of inflation which **excludes certain volatile and seasonal prices**. It is the trend increase of the cost of factors of production that originates in the long-term expectations of inflation.

It excludes transitory or temporary price volatility as in the case of some commodities such as food and fuel. If temporary price shocks are taken into account, they may affect the estimated overall inflation numbers in such a way that they are different from actual inflation. To eliminate this possibility, core inflation is calculated to gauge the actual inflation apart from temporary shocks and volatility.

Q.8) Which of the following statement(s) is/are correct regarding the **Liquidity Adjustment Facility (LAF)** of Reserve Bank of India?

1. The operations of LAF are conducted by way of repurchase agreements (repos and reverse repos).
2. The Regional Rural Banks have been made eligible to avail the LAF facility of RBI.

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Liquidity Adjustment Facility (LAF) is a facility extended by RBI to the scheduled commercial banks and Primary Dealers to avail of liquidity in case of requirement or park excess funds with RBI in case of excess liquidity on an overnight basis against the collateral of G-Secs including SDLs. Basically, LAF enables liquidity management on a day-to-day basis.

The operations of LAF are conducted by way of **repurchase agreements (repos and reverse repos)** with RBI being the counter-party to all the transactions.

As per a recent RBI circular, in order to provide an additional avenue for liquidity management to **Regional Rural Banks (RRBs)**, it has been decided that Liquidity Adjustment Facility (LAF) and Marginal Standing Facility (MSF) will be extended to Scheduled RRBs meeting the following criteria:

- Implemented Core Banking Solution (CBS)
- There is a minimum CRAR of nine per cent and
- Fully compliant with the terms and conditions for availing LAF and MSF issued by Financial Markets Operations Department (FMOD), Reserve Bank of India.

10 PM Compilation for the Month of December, 2020

HISTORY/ART/CULTURE

Q.1) Arrange the following events in chronological order:

1. India-Russia Treaty of Peace, Friendship and Co-operation
2. Surrender of Pakistan Armed forces after Indo-Pak war 1971
3. Starting of Fifth Five-year plan period

Select the correct answer using the code given below:

- a) 1-2-3
- b) 2-3-1
- c) 1-3-2
- d) 3-1-2

Correct answer: A

Explanation: The **Indo-Soviet Treaty of Peace, Friendship and Cooperation** was a treaty signed between India and the Soviet Union in **August 1971** that specified mutual strategic cooperation.

India, on **December 16** celebrates Vijay Diwas to commemorate India's victory over Pakistan. It was on this day in **1971** that the chief of the Pakistani forces, General AA Khan Niazi, along with 93,000 troops, surrendered unconditionally before the Indian forces.

Fifth Five Year Plan's duration was **1974 to 1978**. This plan focussed on Garibi Hatao, employment, justice, agricultural production and defense.

10 PM Compilation for the Month of December, 2020

POLITY

Q.1) Consider the following statements regarding provisions under the **Constitution**:

1. Failure to comply with directions of the Union can be construed by President as inability of State Government to carry on the governance in accordance with constitution.
2. If the President or the Chief Justice of the High court is satisfied of the failure of constitutional machinery in States, the State Government can be dismissed.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. **Article 365 of the Constitution** states that if any State has failed to comply with, or to give effect to, any directions given in the exercise of the executive power of the Union under any of the provisions of this Constitution, it shall be lawful for the President to hold that a situation has arisen in which the Government of the State cannot be carried on in accordance with the provisions of this Constitution.

Statement 2 is incorrect. **Article 356** provides for provisions regarding the failure of Constitutional machinery in States. The article explicitly puts the onus of such determination on **executive, i.e. President and the Governor** of the State concerned, and not the Judiciary.

Q.2) Consider the following statements regarding **Article 356 of the Constitution**:

1. Under the article, President can assume to himself all or any of the functions of the Government of the State.
2. It explicitly prohibits President from assuming to himself powers vested in or exercisable by a High Court.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

Article 356 states that If the President, on receipt of a report from the Governor of a State or otherwise, is satisfied that a situation has arisen in which the Government of the State cannot be carried on in accordance with the provisions of the Constitution, the President may by Proclamation—

(a) assume to himself all or any of the functions of the Government of the State and all or any of the powers vested in or exercisable by the Governor or anybody or authority in the State other than the Legislature of the State;

(b) declare that the powers of the Legislature of the State shall be exercisable by or under the authority of Parliament.

Provided that nothing in this clause shall authorise the President to assume to himself any of the powers vested in or exercisable by a High Court, or to suspend in whole or in part the operation of any provision of this Constitution relating to High Courts.

10 PM Compilation for the Month of December, 2020

GOVERNMENT SCHEMES/INITIATIVES

Q.1) Consider the following statements regarding the 'Shakti Act' that has been in news recently:

1. It has been proposed by Andhra Pradesh government as an amendment to Protection of Children from Sexual Offences Act.
2. It provides for stringent punishment, including the death penalty for perpetrators of crime against women and children.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. The proposed **Maharashtra Government 'Shakti law'** involves two bills — the Maharashtra Shakti Criminal Law (Maharashtra Amendment) Act, 2020, and the Special Court and Machinery for Implementation of Maharashtra Shakti Criminal Law, 2020.

The draft legislation seeks amendments to the Indian Penal Code (IPC), Code of Criminal Procedure (CrPC) and the Protection of Children from Sexual Offences (POCSO) Act to include new offences, increase punishments and speedier investigations and trials.

Statement 2 is correct. Stringent punishment, including the death penalty and heavy fines on the perpetrators is a key feature of the draft bill. The perpetrators will be punished with imprisonment for life for not less than ten years but may extend to the remainder of natural life or with death in cases characterised as 'heinous'.

The draft bill also incorporates provisions with respect to social media. Threatening and intimidating women on social media will be an offence with a maximum punishment of two years and a Rs 1 lakh fine.

Q.2) Consider the following statements regarding FASTag:

1. It enables automatic deduction of toll charges at toll plazas.
2. The tag employs Radio-frequency Identification (RFID) technology.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

To reduce vehicular traffic at the toll plazas, the Government of India (GOI) has mandated all toll plazas, pan India, to make toll payments electronic.

FASTag is a simple to use, reloadable tag which enables automatic deduction of toll charges and lets you pass through the toll plaza without stopping for the cash transaction. FASTag is linked to a prepaid account from which the applicable toll amount is deducted. The tag employs Radio-frequency Identification (RFID) technology and is affixed on the vehicle's windscreen after the tag account is active.

The government has enforced the use of FASTag mandatorily for all vehicles starting from January 1, 2021.

10 PM Compilation for the Month of December, 2020

Q.3) Which of the following statement(s) is/are correct regarding the “**Electricity (Rights of Consumers) Rules, 2020**”?

1. It is the right of consumer to have minimum standards of service for supply of electricity from the distribution licensee.
2. Maximum time period of 7 days in metro cities and 30 days in rural areas identified to provide new connection and modify an existing connection.
3. No connection shall be given without a meter.

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Union Ministry of Power has promulgated **Electricity (Rights of Consumers) Rules, 2020** laying down the rights of power consumers in the country.

Rights and Obligations:

--It is the duty of every distribution licensee to supply electricity on request made by an owner or occupier of any premises in line with the provisions of Act.

--It is the right of consumer to have minimum standards of service for supply of electricity from the distribution licensee.

Release of new connection and modification in existing connection:

--Transparent, simple and time bound processes,

--Applicant has option for online application,

--Maximum time period of 7 days in metro cities and 15 days in other municipal areas and 30 days in rural areas identified to provide new connection and modify an existing connection:

Metering: No connection shall be given without a meter, Provision of Testing of meters, Provisions for replacement of defective or burnt or stolen meters specified.

Q.4) Consider the following statements regarding the **SANKALP programme**:

1. It is a programme of the Ministry of Skill Development with loan assistance from the World Bank.
2. It aims to improve short term skill training qualitatively and quantitatively through strengthening institutions.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Skill Acquisition and Knowledge Awareness for Livelihood Promotion (“SANKALP”)** is a programme of the Ministry of Skill Development with loan assistance from the World Bank.

SANKALP is funded through three major parts: World Bank loan assistance, States’ contribution and Industry contribution.

Statement 2 is correct. It aims to improve short term skill training qualitatively and quantitatively through strengthening institutions, bring in better market connectivity and inclusion of marginalised sections of the society. SANKALP was launched on 19th January 2018 and has a tenure till March 2023.

10 PM Compilation for the Month of December, 2020

SANKALP has **four key result areas**: (i) Institutional Strengthening at Central, State & District level; (ii) Quality Assurance of skill development programmes; (iii) Inclusion of marginalized population in skill development programmes; and (iv) Expanding Skills through PPPs.

Q.5) Consider the following statements regarding **government interventions during COVID-19**:

1. Masks and Hand sanitizers were added in the list of Essential commodities under the Essential Commodities Act for limited period to ensure their availability.
2. The migrant worker families who were not covered under the National Food Security Act were provided with 2 kg of whole chana from Government buffer stocks.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Masks (2 ply & 3 ply surgical masks, N95 masks) and Hand sanitizers** were added in the list of Essential commodities under the Essential Commodities Act for the period up to 30.6.2020 to ensure their availability and stop hoarding / short supply.

Statement 2 is correct. As a part of **Economic response to COVID 19** to ameliorate the hardships faced by the poor due to economic disruption caused by COVID 19, the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY), a special package which included provision of one kg per family of NFSA beneficiaries, of pulses like moong, tur, chana and urad was approved.

Under the **Atma Nirbhar Bharat package**, a provision was made for supply of 2 kg of whole chana from Government buffer stocks per migrant worker family who were **not covered under the National Food Security Act** or were without ration card in the State / UT in which they were stranded.

Q.6) Consider the following statements regarding the **National Startup Awards (NSA) 2021**:

1. It is the first-ever edition of National Startup Awards (NSA) to be organized.
2. It is an initiative of the NITI Aayog.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Statement 1 is incorrect. First-ever **National Startup Awards ('NSA')** were concluded in October 2020, to recognize and reward outstanding startups and ecosystem enablers that are building innovative products or solutions and scalable enterprises, with high potential of employment generation or wealth creation, demonstrating measurable social impact.

Statement 2 is incorrect. It is an initiative of the **Department for Promotion of Industry and Internal Trade (DPIIT)**, Ministry of Commerce. Only DPIIT registered startup entities are eligible for participation.

10 PM Compilation for the Month of December, 2020

Q.7) Which of the following government initiative(s) is/are correctly matched?

1. DIKSHA National Digital Infrastructure for Post-Graduation scholars
2. Manodarpan Psychosocial support to students for their Mental Health and Wellbeing
3. NISHTHA Improving Quality of School Education through Integrated Teacher Training

Select the correct answer using the code given below:

- a) 1 only
- b) 2 and 3 only
- c) 3 only
- d) 1 and 3 only

Correct answer: B

Explanation: Option 1 is incorrectly matched. **DIKSHA (Digital Infrastructure for Knowledge Sharing)** is a national platform for school education, an initiative of National Council for Education Research and Training (NCERT).

DIKSHA was developed based on the core principles of open architecture, open access, open licensing diversity, choice and autonomy as outlined in the Strategy and Approach Paper for the National Teacher Platform

Option 2 is correctly matched. **Manodarpan** is an initiative of Ministry of Education covering a wide range of activities to provide psychosocial support to students, teachers and families for Mental Health and Emotional Wellbeing during the COVID outbreak and beyond.

Option 3 is correctly matched. The Department of School Education and Literacy has launched a National Mission to improve learning outcomes at the elementary level through an Integrated Teacher Training Programme called **NISHTHA**.

NISHTHA is a capacity building programme for "Improving Quality of School Education through Integrated Teacher Training". It aims to build competencies among all the teachers and school principals at the elementary stage.

Q.8) Consider the following statements regarding the **Green National Highways Corridors Project**:

1. It aims to reduce Green House Gas emissions by integrating local materials, industrial byproducts, and bioengineering solutions in highways construction.
2. The project in India is being financially supported by the International Bank for Reconstruction and Development (IBRD).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

The **Government of India and the World Bank** recently signed a \$500 million project to build safe and green national highway corridors in the states of Rajasthan, Himachal Pradesh, Uttar Pradesh and Andhra Pradesh.

The **Green National Highways Corridors Project** will support MoRTH construct 783 km of highways in various geographies by integrating safe and green technology designs such as local and marginal materials, industrial byproducts, and other bioengineering solutions.

10 PM Compilation for the Month of December, 2020

The project will help reduce GHG emissions in the construction and maintenance of highways.

The \$500 million loan from the **International Bank for Reconstruction and Development (IBRD)**, has a maturity of 18.5 years including a grace period of five years.

Q.9) Which of the following institution is organizing the **India International Science Festival 2020**?

- a) NITI Aayog
- b) Biotechnology Industry Research Assistance Council (BIRAC)
- c) Council of Scientific & Industrial Research (CSIR)
- d) Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC)

Correct answer: C

Explanation: The **India International Science Festival 2020** is being organised by **Council of Scientific & Industrial Research (CSIR)** in collaboration with Ministry of Earth Sciences, Department of Science and Technology (DST), Ministry of Health and Family Welfare, Ministry of Earth Sciences, Department of Biotechnology (DBT) and Vijnana Bharati (VIBHA).

The sixth edition of this festival will take place from December 22 -25, 2020 with the theme 'Science for Self-Reliant India and Global Welfare'. It aims to celebrate the achievements of India's scientific and technological advancements with students and innovators.

Q.10) Consider the following statements regarding the **National Film Development Corporation (NFDC)**:

- 1. It is a statutory body under the Ministry of Information and Broadcasting.
- 2. Union government has decided to merge the Directorate of Film Festivals and National Film Archives of India with NFDC.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. **National Film Development Corporation Ltd. (NFDC)**, incorporated in the year 1975, (100% owned Central Public Sector Undertaking) was formed by the Government of India with the primary objective of planning and promoting an organized, efficient, and integrated development of the Indian film industry. Statement 2 is correct. Union Cabinet has recently approved to **merge four of its film media units**, namely Films Division, Directorate of Film Festivals, National Film Archives of India, and Children's Film Society, India with the National Film Development Corporation (NFDC) Ltd. by expanding the Memorandum of Articles of Association of NFDC, which will then carry out all the activities hitherto performed by them.

Q.11) Consider the following statements:

- 1. Aero India exhibition of aerospace and defence industries is organized every alternate year.
- 2. The Tejas LCA is a single engine Multi-Role Supersonic Fighter Aircraft

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only

10 PM Compilation for the Month of December, 2020

- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Aero India exhibition** is organized every alternate year. It is one of the major exhibitions for aerospace and defence industries with a public air show. It enables industry professional to gain market insights, announce new developments and gain media coverage. Aero India offers a unique platform to international aviation sector to bolster business.

Aero India 2021 is the 13th edition of Aero India being organised at Bengaluru, Karnataka from 03-07 February 2021.

Statement 2 is correct. The **Tejas LCA** together with its variants, is the smallest and lightest Multi-Role Supersonic Fighter Aircraft of its class. This single engine, Compound-Delta-Wing, Tailless Aircraft is designed and developed to meet diverse needs of the Indian Air Force (IAF).

The logo for Aero India is inspired by the Tejas Light Combat Aircraft (LCA).

Q.12) Consider the following statements regarding the **COVID Vaccine Intelligence Network (CoWIN)**:

1. It is a digitalized platform to be used to effectively roll out and scale up the mechanism for COVID Vaccination.
2. It has been launched by the World Health Organisation.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. **COVID Vaccine Intelligence Network (CoWIN)** system is a digitalised platform to be used to effectively roll out and scale up the mechanism for COVID Vaccine Distribution System, nationally in India.

Statement 2 is incorrect. It has been launched by the **Ministry of Health & Family Welfare**.

Ministry of Health and Family Welfare (MoHFW) along with Ministry of Electronics and Information Technology (MeitY) has announced the launching of "CoWIN", a Grand Challenge for strengthening the COVID Vaccine Intelligence Network (CoWIN) system.

Q.13) Consider the following statements regarding the 'Post Matric Scholarship to students belonging to Scheduled Castes (PMS-SC)' scheme:

1. It allows students to pursue any post matric course starting from class 11th and onwards, with the Government meeting the cost of education.
2. The States will undertake fool-proof verification of the eligibility under the scheme.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: C

Explanation: Statement 1 is correct. The Cabinet Committee on Economic Affairs chaired recently approved major and transformatory changes in the **Centrally Sponsored Scheme 'Post Matric Scholarship to students belonging to Scheduled Castes (PMS-SC)'**.

The Cabinet has approved a total investment of Rs. 59,048 Cr of which Central Government would spend Rs. 35,534 Cr (60%) and the balance would be spent by the State Govts. This replaces the existing 'committed liability' system and brings greater involvement of the Central Govt in this crucial scheme.

The Post Matric Scholarship Scheme for Scheduled Castes allows students to pursue any post matric course starting from class 11th and onwards, with the Govt meeting the cost of education.

Statement 2 is correct. The scheme will be run on an **online platform** with robust cyber security measures that would assure transparency, accountability, efficiency, and timely delivery of the assistance without any delays.

The States will undertake fool-proof verification of the eligibility, caste status, Aadhar identification and bank account details on the online portal.

Q.14) Which of the following is/are Indian research station(s) at **Antarctica**?

1. Maitri
2. Bharati
3. Himadri

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: A

Explanation: India presently has two research stations at Antarctica namely '**Maitri**' and '**Bharati**'. 'Bharati' was established in 2013 and Maitri station has been in operation since 1989. At both the stations, research and investigations are undertaken to understand the Polar processes and phenomenon. Observations and studies are carried out in atmospheric, biological, geological, ecological sciences etc.

At **Arctic**, meteorological, biological, glaciological and past climate studies are undertaken in the vicinity of the station '**Himadri**'.

Several people at a Chilean research station in Antarctica have been found infected with the novel coronavirus.

Q.15) Consider the following statements regarding the **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)**:

1. It is a Centrally Sponsored Scheme.
2. The responsibility of identification of beneficiary farmer families rests with the State / UT Governments.
3. Persons who paid income tax last assessment year are not eligible under the scheme.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

10 PM Compilation for the Month of December, 2020

Correct answer: B

Explanation: Statement 1 is incorrect. Pradhan Mantri Kisan Samman Nidhi (**PM-KISAN**) is a Central Sector scheme with 100% funding from Government of India.

Statement 2 is correct. Under the Scheme an income support of Rs.6000/- per year is provided to all farmer families across the country in three equal installments of Rs.2000/- each every four months.

The entire responsibility of identification of beneficiary farmer families rests with the State / UT Governments.

Statement 3 is correct. All Persons who paid **Income Tax in last assessment year** are not eligible for benefits under the scheme.

Q.16) Consider the following statements regarding the **Science, Technology, and Innovation Policy 2020 (STIP 2020)**:

1. This is only the second national science and technology policy of/for India that follows the STIP 2013.
2. Its formulation process is being facilitated jointly by the Office of the Principal Scientific Adviser to Government of India and the Department of Science and Technology (DST).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: The Government of India will launch STIP 2020, a holistic and pragmatic policy dedicated to Science, technology and most importantly innovation. The policy aims to reorient Science Technology & Innovation (STI) in terms of priorities, sectoral focus and strategies.

Statement 1 is incorrect. A preparatory framework has been developed for the formulation of STIP 2020. This is only the **fifth national science, technology, and innovation policy** of/for India that follows Science Policy Resolution 1958 (SPR 1958), Technology Policy Statement 1983 (TPS 1983), Science and Technology Policy 2003 (STP 2003) and Science, Technology, and Innovation Policy 2013 (STIP 2013).

Statement 2 is correct. STIP2020 formulation process is being facilitated jointly by the Office of the Principal Scientific Adviser to the Government of India (**Office of PSA**) and the Department of Science and Technology (**DST**).

Q.17) Consider the following statements regarding the **Sagarmala programme**:

1. It is a flagship programme of the Ministry of Shipping to promote port-led development in the country.
2. The program includes development of coastal communities through skill development.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The **Sagarmala programme** is the flagship programme of the Ministry of Shipping to promote port-led development in the country

10 PM Compilation for the Month of December, 2020

through harnessing India's 7,500 km long coastline, 14500 km of potentially navigable waterways and strategic location on key international maritime trade routes.

Statement 2 is correct. **Components of Sagarmala Programme are:**

Port Modernization & New Port Development: De-bottlenecking and capacity expansion of existing ports and development of new greenfield ports

Port Connectivity Enhancement: Enhancing the connectivity of the ports to the hinterland, optimizing cost and time of cargo movement through multi-modal logistics solutions including domestic waterways

Port-linked Industrialization: Developing port-proximate industrial clusters and Coastal Economic Zones to reduce logistics cost and time of EXIM and domestic cargo

Coastal Community Development: Promoting sustainable development of coastal communities through skill development & livelihood generation activities, fisheries development, coastal tourism etc.

Coastal Shipping & Inland Waterways Transport: Impetus to move cargo through the sustainable and environment-friendly coastal and inland waterways mode.

Ministry of Ports, Shipping and Waterways (MoPSW) intends to create Product Specific Warehouses/Silos at various Ports, Multi Modal Logistics Parks located near Port area and alongside the National Waterways.

Q.18) Consider the following statements regarding the **Ayushman Bharat PM-JAY SEHAT scheme:**

1. It aims to extend Universal Health Coverage to all the residents of the Union Territory of Jammu & Kashmir.
2. It provides financial health cover upto Rs 5 lakh per family on a floater basis.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

Prime Minister will launch **Ayushman Bharat PM-JAY SEHAT** to extend coverage to all the residents of the Union Territory of Jammu & Kashmir on 26th December 2020.

The scheme will ensure Universal Health Coverage and focus on providing financial risk protection and ensuring quality and affordable essential health services to **all individuals and communities.**

It provides health insurance cover upto Rs 5 lakh per family on a floater basis to all residents of the UT of J&K. It provides for operational extension of PM-JAY to 15 lakh (approx) additional families.

The scheme will operate on insurance mode in convergence with PM-JAY. The benefits of the scheme will be portable across the country. The hospitals empanelled under PM-JAY scheme shall provide services under this scheme as well.

Q.19) Consider the following statements regarding the **Bharat Skills Learning platform:**

1. It has been launched by the National Skill Development Corporation.
2. It is a Central Repository for skills which provide National Skills Qualifications Framework (NSQF) curriculum and course material.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only

10 PM Compilation for the Month of December, 2020

- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. Bharat Skills is a e-learning portal of the Directorate General of Training (DGT), Ministry of Skill Development and Entrepreneurship.

Statement 2 is correct. **Bharatskills** is a Central Repository for skills providing easy access for the trainees and trainers of the ITI ecosystem, to access updated curriculums and course content of all courses under the Craftsmen Training Scheme (CTS), Question Banks, mock/practice papers, learning videos, etc., hence enabling anytime, anywhere learning outside the classrooms.

This platform also presents a unique access to a centralized, scalable and a thriving support ecosystem through its industrial partners for the students and teachers who can now learn the newer IR 4.0 skills to meet the demands of the industry.

The Directorate General of Training (DGT) joined hands with Microsoft and NASSCOM Foundation to provide a digital content for ITI students and also future-ready employability skilling program for upskilling and reskilling. Nearly 1,20,000 students in around 3000 ITIs across India can be benefited by this digitized e-learning module via the Bharatskills portal.

Q.20) Consider the following statements:

1. Institute of Teaching and Research in Ayurveda (ITRA) at Jamnagar has been conferred with the status of Institute of National Importance.
2. The traditional medicinal system Sowa-Rigpa has been included under the ambit of Ministry of AYUSH.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Ministry of AYUSH has released its year end review for 2020 [PIB].

Statement 1 is correct. The **Institute of Teaching and Research in Ayurveda Act, 2020** confers the status of Institute of National Importance to the Institute of Teaching and Research in Ayurveda (ITRA) at Jamnagar by conglomerating four institutes at Gujarat Ayurved University, campus Jamnagar.

Statement 2 is correct. The Government has suitably amended the Allocation of Business Rules and inter-alia included the business of formulation of policy for development and propagation of **Sowa-Rigpa** under the ambit of Ministry of AYUSH.

The National Research Institute of Sowa-Rigpa was upgraded to “National Institute of Sowa Rigpa” in Leh, UT of Ladakh with the approval of Cabinet on 20th November, 2019.

Q.21) Consider the following statements regarding the **PM Formalisation of Micro food processing Enterprises (PM-FME)** Scheme:

1. The scheme aims at formalization of micro units by means of GST, Udyog Aadhar and FSSAI registrations.
2. The Scheme adopts One District One Product (ODOP) approach to reap benefit of scale in terms of procurement of inputs, availing common services and marketing of products.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only

10 PM Compilation for the Month of December, 2020

- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. Ministry of Food Processing Industries (MoFPI), in partnership with the States, has launched an all India centrally sponsored "**PM Formalisation of Micro Food Processing Enterprises Scheme (PM FME Scheme)**". The objectives of the scheme are:

- Formalization of micro units by means of GST, Udyog Aadhar and FSSAI registrations
- Financial assistance to individual units for upgradation of food processing facilities
- Quality improvement and skill development through trainings and technical knowledge
- Financial assistance to Farmer Producer Organizations (FPOs), Self Help Groups (SHGs), producer's cooperatives for setting up common infrastructure facilities

Statement 2 is correct. The PM FME scheme derives inspiration from the **One District One Product (ODOP) Programme** of the Uttar Pradesh (UP) government which aims to create product-specific traditional industrial hubs across 75 districts of UP.

Under the PM FME scheme, the states will be required to identify one product per district based on the availability of raw material and existing clusters.

Q.22) Consider the following statements regarding the **Accessible India Campaign**:

1. It has been launched by the United Nations Commission on Human Rights in India.
2. It aims to achieve universal accessibility for Persons with Disabilities (PwDs).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. **Department of Empowerment of Persons with Disabilities (DEPwD)** has launched Accessible India Campaign (Sugamya Bharat Abhiyan) as a nation-wide Campaign.

Statement 2 is correct. It aims at achieving **universal accessibility for Persons with Disabilities** (PwDs). The mission aims at achieving accessibility by:

- Enhancing the proportion of accessible government buildings
- Transportation System Accessibility
- Information and Communication Eco-System Accessibility

Q.23) What is the utility of the e-Sampada application launched by the **Ministry of Housing and Urban Affairs**?

- a) Monitoring the green cover in urban India
- b) Estate services of government accommodations
- c) Monitoring city wise progress of Smart India mission
- d) Single window information hub for Swachh Bharat-Urban mission

Correct answer: B

Explanation: With the objectives of boosting transparency and accountability while ensuring ease of living for the citizens, the Directorate of Estates, Ministry of Housing and Urban Affairs launched a new Web Portal and Mobile App, **e-Sampada**.

10 PM Compilation for the Month of December, 2020

The new application provides a single window for all these services including allotment for over one lakh government residential accommodations, office space allotment to government organisations.

It aims to boost transparency and accountability in providing various Estate Services like allotment, retention, regularisation, no dues certificate etc.

He further said that E-Sampada is developed to simplify processes and bring uniformity in the system across India. This will promote ease of living for Government of India officers / Departments as all services can be availed online on a single window with a live tracking of applications.

Q.24) Consider the following statements regarding the **Code on Wages, 2019**:

1. The Code prohibits gender discrimination in matters related to wages and recruitment of employees for the same work or work of similar nature.
2. The Code specifies paying less than the due wages as an offence by the employer.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The **Code on Wages 2019** prohibits gender discrimination in matters related to wages and recruitment of employees for the same work or work of similar nature. Work of similar nature is defined as work for which the skill, effort, experience, and responsibility required are the same.

Statement 2 is correct. The Code specifies **penalties for offences** committed by an employer, such as (i) paying less than the due wages, or (ii) for contravening any provision of the Code. Penalties vary depending on the nature of offence, with the maximum penalty being imprisonment for three months along with a fine of up to one lakh rupees.

10 PM Compilation for the Month of December, 2020

HISTORY/ART/CULTURE

Q.1) Which of the following is/are correctly matched?

1. Gatka - Punjab
2. Thang ta - Manipur
3. Kalaripayattu - Kerala

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: The **Sports Ministry** has approved the inclusion of four Indigenous Games to be a part of Khelo India Youth Games 2021, scheduled to take place in Haryana. The games include: **Gatka, Kalaripayattu, Thang-Ta and Mallakhamba.**

Gatka is a traditional form of martial arts in Punjab, which is historically associated with Sikh Gurus and is popular among the masses as Sikh martial art.

Manipuri martial art is called Thang-Ta (sword and spear). It is dedicated to fighting skill and worship.

Kalaripayattu, also known simply as Kalari, is an Indian martial art that originated in modern-day Kerala.

Mallakhamb is a traditional sport of India in which a gymnast performs aerial yoga or gymnastic postures and wrestling grips in concert with a vertical stationary or hanging wooden pole, cane, or rope.

Q.2) Arrange the following events in chronological order:

1. Liberation of Goa from Portuguese Rule
2. Indo-Pak War 1965
3. Gulzari Lal Nanda sworn in as Prime Minister of India for the first time

Select the correct answer using the code given below:

- a) 1-2-3
- b) 2-3-1
- c) 1-3-2
- d) 3-1-2

Correct answer: C

Explanation: **Goa Liberation Day** is observed on December 19 every year in India and it marks the day Indian armed forces freed Goa in **1961** following almost 450 years of Portuguese rule.

Following the death of Pt. Nehru, Shri **Gulzari Lal Nanda** was sworn in as Prime Minister of India on **May 27, 1964**. Again on January 11, 1966, he was sworn in as Prime Minister following the death of Shri Lal Bahadur Shastri at Tashkent.

The **Indo-Pakistani War of 1965** began following Pakistan's Operation Gibraltar, which was designed to infiltrate forces into Jammu and Kashmir to precipitate an insurgency against Indian rule.

Q.3) Consider the following statements regarding **Guru Tegh Bahadur**:

1. He was ninth Guru of the Sikh religion.
2. He was a contemporary of the Mughal King Akbar.

Which of the statements given above is/are correct?

10 PM Compilation for the Month of December, 2020

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. **Guru Tegh Bahadur was the ninth Guru** of the Sikh religion. He was beheaded on the orders of Mughal Emperor Aurangzeb on 24 November 1675 in Delhi.

Gurdwara Sis Ganj Sahib and Gurdwara Rakab Ganj Sahib stand at the sites of beheading and cremation of his body.

Statement 2 is incorrect. Mughal King **Akbar reigned from 1556 to 1605**, whereas Guru Tegh Bahadur was born on 1 April 1621 in Amritsar and was named Tyaga Mal at birth.

Q.4) Which of the following statement is correct regarding the **Dhokra Art**?

- a) It is a metal casting style which uses the lost-wax technique
- b) It is a fresco wall painting art from Western India
- c) It is a royal painting tradition in Ayodhya region
- d) It is a scroll painting art of Odisha

Correct answer: A

Explanation: **Dhokra is a non-ferrous metal casting style** which uses the lost-wax technique. This style of metal casting has been in vogue in all parts of India for centuries.

Exquisite Dhokra products from different tribes of India were among the main items added in its 7th edition of "From Our Home to your Home" campaign on Tribes India, which focusses on sourcing new, natural, attractive as well as immunity-boosting tribal products and bringing them to the customer.

Among the dhokra products being introduced on **Tribes India** are attractive statues of fish, elephants and hangers in the boat jail design from the Lohra tribes of Jharkhand. From the Sadeibaraini tribals from Odisha, Ganesha statues, including a dancing Ganesha, a mask of Goddess Durga and Lord Jagannath, a Buddha Jaali and beautiful diyas in different shapes have been sourced.

Q.5) Which of the following **Prime Minister(s) served as Head of Government** more than once?

1. Gulzari Lal Nanda
2. Atal Bihari Vajpayee
3. Morarji Desai

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: A

Explanation: Option 1 is correct. Following the death of Pt. Nehru, **Gulzari Lal Nanda** was sworn in as Prime Minister of India on May 27, 1964. Again on January 11, 1966, he was sworn in as Prime Minister following the death of Shri Lal Bahadur Shastri at Tashkent.

Option 2 is correct. **Atal Bihari Vajpayee** served as Prime Minister for a short period in 1996. He later served as PM consecutively from 1998-99 and 1999-2004.

Option 3 is incorrect. **Morarji Desai** served as 4th Prime Minister of India in period March 24, 1977 - July 28, 1979.

10 PM Compilation for the Month of December, 2020

SCIENCE & TECHNOLOGY

Q.1) What is **B.1.1.7**, which has been in news recently?

- a) A mutated SARS-COV-2
- b) An asteroid having potential of Earth impact in 2029
- c) A previously unidentified type of radioactive substance
- d) A supersonic vehicle capable of carrying passengers to Space

Correct answer: A

Explanation: The **highly infectious variant of SARS-COV-2** that has been reported to have emerged in south-east **England** that is spreading rapidly to the rest of the UK and is already present elsewhere in the world.

The World Health Organisation said its Evolution Working Group is working closely with the UK medical authorities to understand how the variant, now called **B.1.1.7**, is likely to affect the course of the pandemic. It has been detected in the Netherlands, Denmark and Australia.

Scientists say two aspects of B.1.1.7 give cause for concern. One is the unprecedented number of mutations it carries. The other is the speed with which it is supplanting other strains of the Sars-Cov-2 virus in south-east England.

Q.2) Consider the following statements:

- 1. In general, hypersonic flow is defined as the flow at Mach 5 or greater.
- 2. The hypersonic wind tunnel is used to test and simulate flight characteristics in a hypersonic region.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

In aerodynamics, a **hypersonic speed** is one that greatly exceeds the speed of sound, often stated as starting at speeds of **Mach 5 and above**.

A test facility designed or considered for hypersonic testing should simulate the typical flow features of this flow regime. To develop satellite launch rockets, space shuttles, etc., it is essential to test in the hypersonic range of Mach number 5 or more. The **hypersonic wind tunnel** is used to test flight characteristics in a hypersonic region.

Defence minister recently inaugurated the advanced Hypersonic Wind Tunnel test facility in Hyderabad. With this India has become the third country to have such a huge facility in size and capability after America and Russia.

Q.3) Which of the following can cause a **mutation** in genes?

- 1. If an error is made as DNA copies itself during cell division
- 2. Exposure to ultraviolet radiation

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: C

Explanation: A mutation is a change in a DNA sequence. Mutations can lead to changes in the structure of an encoded protein or to a decrease or complete loss in its expression.

--When a **cell divides**, it makes a copy of its DNA — and sometimes the copy is not quite perfect. That small difference from the original DNA sequence is a mutation.

-- **Mutations** can also be caused by exposure to specific chemicals or radiation. Ultraviolet (UV) light has strong genotoxic effects to produce DNA damage, induce mutations, and, in the worst case, cause the development of tumors.

Q.4) Consider the following statements regarding the **FELUDA test**:

1. It is aimed at detection of genes specific to SARS-CoV-2 virus.
2. It uses CRISPR technology for COVID-19 diagnosis.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

The **FNCAS9 Editor-Limited Uniform Detection Assay (FELUDA) test** is a paper strip test for diagnosis of SARS-COV-2.

It uses CRISPR-Cas technology for the detection of genes specific to SARS-CoV-2 virus.

In this method, a protein called FnCas9 and a guide RNA (gRNA) which helps in recognising the viral genes is used. If the patient sample has the viral gene, this gRNA-FnCas9 complex binds to the gene and using a paper strip this binding can be visualised.

Q.5) Consider the following statements regarding the **Spike proteins**:

1. These are carbohydrate containing proteins protruding from envelope of coronaviruses.
2. The spike proteins latch the virus onto a human body cell.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. Members of the coronavirus family have sharp bumps that protrude from the surface of their outer envelopes. Those bumps are known as **spike proteins**. They're actually glycoproteins. That means they contain a **carbohydrate** (such as a sugar molecule).

Statement 2 is correct. Spike proteins play an important role in how these viruses infect their hosts. S proteins can change shape to interact with a protein on the surface of human cells. Those spike proteins latch the virus onto a cell. This allows them to get entry into those cells.

Without the S protein, viruses like the novel SARS-CoV-2 would not be able to interact with the cells of potential hosts like animals and humans to cause infection. As a result, the S protein represents an ideal target for vaccine and antiviral research endeavors.

Q.6) Which of the following is the major component of the **Piped Natural Gas (PNG)**?

- a) Propane

10 PM Compilation for the Month of December, 2020

- b) Butane
- c) Ethane
- d) Methane

Correct answer: D

Explanation: Natural gas as its name indicates is a Gaseous fuel, consisting of 87-92% of **Methane** with a small percentage of other higher hydrocarbons.

PNG, CNG & LNG are different forms of Natural gas under varied temperature & pressure.

Piped Natural Gas (PNG) is generally under atmospheric temperatures but the pressure can up to as high as 90 Kg/cm² in transmission lines and limited to less than 24 Kg/cm² in City Gas grids due to risk involved in movement of high-pressure gas inside crowded cities/towns.

Compressed Natural Gas (CNG) means natural gas used as fuel for vehicles, typically compressed to the pressure ranging from 200 to 250 kg/cm² in the gaseous state.

Liquefied Natural Gas (LNG) is liquid form of Natural gas, generally intended for transportation of large volumes through ships, where cross country pipelines are not feasible. There will be high degree of economy in transportation logistics due to large scale of operations involved.

Q.7) Consider the following statements regarding the **Barak 8 missile**:

1. It is a beyond-visual-range air-to-air missile.
2. It has been jointly developed by the Israel Ministry of Defense (IMOD) and the DRDO (Defence Research and Development Organization).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. The **Barak-8 Surface-to-Air Missile Defence system or LRSAM** provides a 360-degree defence against various airborne threats. Complemented by a state-of-the-art multi-mission radar, flexible control and command system, and two-way data link, Barak-8 can engage multiple targets at the same time during day and night in all weather conditions.

Statement 2 is correct. Barak-8, jointly developed by the **Israel Ministry of Defense (IMOD) and the DRDO** (Defence Research and Development Organization) in India, is an advanced groundbreaking air and missile defense system which provides ultimate protection against a variety of aerial platforms, in both land and naval scenarios.

Defence Research and Development Organisation (DRDO) recently tested Army version of MRSAM is a surface to Air Missile developed jointly by DRDO, India and IAI, Israel for use of the Indian Army.

Q.8) What is '**Variant Under Investigation (VUI)-20212/01**'?

- a) A new variant of SARS-COV-2 virus
- b) A potential BCG vaccine variant for COVID-19
- c) A spyware attack on US government agencies
- d) Sample from Bennu asteroid

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: A **new variant of SARS- CoV 2 virus [Variant Under Investigation (VUI)- 20212/01]** also referred to as B.1.1.7 has been reported by the Government of United Kingdom (UK) to World Health Organization (WHO).

This variant is estimated by European Center for Disease Control (ECDC) to be more transmissible and affecting younger population. This variant is defined by a set of 17 changes or mutations. One of the most significant is an N501Y mutation in the spike protein that the virus uses to bind to the human ACE2 receptor. Changes in this part of the spike protein may result in the virus becoming more infectious and spreading more easily between people.

Q.9) The **501.V2 variant of SARS-COV-2** has been identified in which of the following country?

- a) South Africa
- b) Australia
- c) Argentina
- d) Pakistan

Correct answer: A

Explanation: The new variant known as **501Y.V2** was discovered through routine surveillance by a network of laboratories in **South Africa**.

South Africa reported last week that scientists have found a new genetic mutation which might be responsible for the recent surge in Covid-19 cases in South Africa.

The new variant has multiple changes in the **spike protein**, the part of the virus that binds to cells inside the human body and that is also the main target for many of the antibodies produced during infection or after vaccination. Scientists have isolated one particular mutation – N501Y, common to both the new UK variant and that from South Africa – which they believe is important to its ability to spread fast.

Q.10) Consider the following statements regarding **Ammonia**:

1. It is a major ingredient in fertilizer industry.
 2. Exposure to high concentrations of ammonia can result in respiratory distress or failure.
- Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. A tri-hydrogen of nitrogen (NH_3), ammonia is a building block for ammonium nitrate (NH_4NO_3) that is used in agriculture as a high-nitrogen **fertiliser**.

Ammonia is also used as a refrigerant gas, for purification of water supplies, and in the manufacture of plastics, explosives, textiles, pesticides, dyes and other chemicals.

Statement 2 is correct. Ammonia is irritating and corrosive. Exposure to high concentrations of ammonia in air causes immediate burning of the nose, throat and respiratory tract. This can cause bronchiolar and alveolar edema, and airway destruction resulting in **respiratory distress or failure**.

Inhalation of lower concentrations can cause coughing, and nose and throat irritation. Ammonia's odor provides adequate early warning of its presence, but ammonia also causes

10 PM Compilation for the Month of December, 2020

olfactory fatigue or adaptation, reducing awareness of one's prolonged exposure at low concentrations.

Q.11) Consider the following statements regarding **Shigella infection**:

1. It is a bacterial infection.
2. Children are more susceptible to the Shigella infection.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Shigella bacteria** cause an infection called shigellosis. Most people with Shigella infection have diarrhea (sometimes bloody), fever, and stomach cramps. Symptoms usually begin 1–2 days after infection and last 7 days.

Shigella is very contagious. People get infected with shigella when they come in contact with and swallow small amounts of bacteria from the stool of a person who is infected with shigella.

Statement 2 is correct. **Children under age 10** are most likely to get shigella infection but it can occur at any age.

Recently, several cases of the Shigella infection have been reported in North Kerala.

Q.12) Consider the following statements:

1. Saturn takes more than twice as much as years Jupiter takes to complete one revolution around Sun.
2. Jupiter is the largest planet in our solar system.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: In 1623, the solar system's two giant planets, Jupiter and Saturn, traveled together across the sky. Jupiter caught up to and passed Saturn, in an astronomical event known as a "Great Conjunction."

It's been nearly 400 years since the planets passed this close to each other in the sky, and nearly 800 years since the alignment of Saturn and Jupiter occurred at night, as it happening in 2020, allowing nearly everyone around the world to witness this "**great conjunction**."

Statement 1 is correct. Jupiter takes roughly 12 years to complete one lap around the Sun and Saturn takes 30 years.

Statement 2 is correct. Jupiter is the largest planet in our solar system at nearly 11 times the size of Earth and 317 times its mass.

Despite its size, Jupiter has the shortest day of any other planet; it only takes about 10 hours for a complete rotation.

10 PM Compilation for the Month of December, 2020

ECONOMY

Q.1) What is measured by the **MSCI Indexes**?

- a) Expansion of a pandemic disease
- b) Measurement of stock market performance
- c) Ease of doing business in a country/State
- d) Extent of government regulation in a particular field

Correct answer: B

Explanation: Morgan Stanley Capital International (MSCI) has set up many global indices, one of which is a composite of Indian stocks-the MSCI India index.

The MSCI Indexes are a measurement of stock market performance in a particular area. Like other indexes, such as the Dow Jones Averages or the S&P 500, it tracks the performance of the stocks included in the index.

MSCI has indexes for a variety of geographic sub-areas, as well as global indexes for stock categories such as small-cap, large-cap, and mid-cap. The four most popular track emerging markets, frontier markets, developed markets excluding the United States and Canada, and the world market.

MSCI Inc will cut seven Chinese firms from some of its global indexes, it said recently, the third major index publisher after S&P Dow Jones Indices and FTSE Russell to do so following U.S. restrictions on owning the companies.

Q.2) Which of the following statement correctly defines the **Positive Pay mechanism**?

- a) Security feature for large value cheque transactions
- b) New auction mechanism for spectrum sale
- c) T+2 settlement cycle for equity transactions
- d) The UPI mandate facility for mutual funds

Correct answer: A

Explanation: From January 1, 2021 onwards Reserve Bank of India has decided to introduce a mechanism of **Positive Pay for all cheques of value ₹50,000 and above**. Under this mechanism, cheques will be processed for payment by the drawee bank based on information passed on by its customer at the time of issuance of cheque.

Under this process, the issuer of the cheque submits electronically, through channels like SMS, mobile app, Internet banking and ATM, certain minimum details of that cheque (like date, name of the beneficiary, or payee and amount) to the drawee bank, details of which are cross-checked with the presented cheque by Cheque Truncation System (CTS).

Any discrepancy is flagged by CTS to the drawee bank and presenting bank, who then take redressal measures.

10 PM Compilation for the Month of December, 2020

GEOGRAPHY/ENVIRONMENT

Q.1) Which of the following is/are correct regarding the conservation status of **Leopard (Panthera pardus)**?

1. Listed in Appendix I of the Convention on International Trade of Endangered Species Wild Fauna and Flora (CITES)
2. Listed in Schedule I of the Wildlife (Protection) Act 1972
3. Listed as Vulnerable under IUCN Red List

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: **Leopard (Panthera pardus)** is the most widely distributed and adaptable member of the family Felidae. However, their current distribution and numbers have significantly decreased across the range due to habitat loss, prey depletion, conflict and poaching over the last century.

This has resulted in changing the species status from 'Near Threatened' to '**Vulnerable**' by IUCN. It is also listed in **Appendix I** of the Convention on International Trade of Endangered Species of Wild Fauna and Flora (**CITES**) and in **Schedule I of the Wildlife (Protection) Act 1972** in India providing it with the highest level of protection.

Q.2) Where is **My Son temple** located?

- a) Vietnam
- b) Myanmar
- c) Indonesia
- d) Thailand

Correct answer: A

Explanation: **My Son**, an architectural complex on the coast of **Vietnam**, was the spiritual and political capital of the Cham people (the Champa Kingdom). The site consists of Hindu temple-towers built between the 4th and 13th centuries, though few pre-7th-century remains survive.

A UNESCO World Heritage Site, the My Son temple complex is among Vietnam's most cherished cultural treasures. The ancient temples are being restored with support from the **Archaeological Survey of India**.

Q.3) Consider the following statements:

1. An aquifer is a body of porous rock saturated with groundwater.
2. An artesian well doesn't require a pump to bring water to the surface.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: C

Explanation: Statement 1 is correct. An **aquifer** is a body of saturated rock through which water can easily move. Groundwater enters an aquifer as precipitation seeps through the soil. It can move through the aquifer and resurface through springs and wells.

Aquifers must be both **permeable and porous** and include such rock types as sandstone, conglomerate, fractured limestone and unconsolidated sand and gravel. Fractured volcanic rocks such as columnar basalts also make good aquifers.

Statement 2 is correct. An **artesian well** is simply a well that doesn't require a pump to bring water to the surface. This occurs when there is enough positive pressure in the aquifer to bring the water to the surface.

Groundwater in aquifers between layers of poorly permeable rock, such as clay or shale, may be confined under pressure. If such a confined aquifer is tapped by a well, water will rise above the top of the aquifer and may even flow from the well onto the land surface. Water confined in this way is said to be under artesian pressure, and the aquifer is called an artesian aquifer.

A Memorandum of Agreement (MoA) was signed recently between Central Ground Water Board and CSIR-NGRI, Hyderabad for geophysical survey and other scientific studies in North-Western India under the Aquifer Mapping Programme.

Q.4) Consider the following statements regarding the "**Status of Leopards in India 2018**":

1. It has been released the Worldwide Fund for Nature-India.
2. The states of Madhya Pradesh and Karnataka have recorded an increase in Leopard population.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. **Status of Leopards in India 2018** report was released recently by the Ministry for Environment, Forest and Climate Change.

Statement 2 is correct. India now has 12,852 leopards as compared to the previous estimate of 7910 conducted 2014. More than 60% increase in population has been recorded. The States of **Madhya Pradesh, Karnataka and Maharashtra** recorded the highest leopard estimates at 3,421, 1,783 and 1,690 respectively.

Q.5) Consider the following statements regarding the **National Education Policy 2020**:

1. A legislative framework to be put in place to facilitate top 100 universities in the world to operate in India.
2. Credits acquired in foreign universities will be permitted and may be counted for award of a degree.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: The **National Education Policy 2020** states that:

10 PM Compilation for the Month of December, 2020

- High performing Indian universities will be encouraged to set up campuses in other countries
- Those from among the top 100 universities in the world will be facilitated to operate in India. A legislative framework facilitating such entry will be put in place, and such universities will be given special dispensation regarding regulatory, governance, and content norms on par with other autonomous institutions of India.
- Furthermore, research collaboration and student exchanges between Indian institutions and global institutions will be promoted through special efforts.
- Credits acquired in foreign universities will be permitted, where appropriate as per the requirements of each HEI, to be counted for the award of a degree.

Q.6) Consider the following statements regarding **Great Indian Bustard**:

1. Hunting, high tension lines and habitat loss are the major threat to this species.
2. It is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972 and as Critically Endangered on the IUCN Red List.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. Historically, the **Great Indian Bustard** was distributed throughout Western India, spanning 11 states, as well as parts of Pakistan. Its stronghold was once the Thar desert in the north-west and the Deccan plateau of the peninsula. Today, its population is confined mostly to Rajasthan and Gujarat. Small populations occur in Maharashtra, Karnataka and Andhra Pradesh.

The biggest **threat to this species** is hunting, which is still prevalent in Pakistan. This is followed by occasional poaching outside Protected Areas, collisions with high tension electric wires, fast moving vehicles and free-ranging dogs in villages. Other threats include habitat loss and alteration as a result of widespread agricultural expansion and mechanized farming.

Statement 2 is correct. Great Indian Bustard (*Choriotis nigriceps*) is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972 and as Critically Endangered on the IUCN Red List.

Q.7) Consider the following statements regarding the **Tso Kar wetland**:

1. It is north of the Pangong Tso.
2. It is an A1 Category Important Bird Area (IBA) as per Bird Life International.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. The **Tso Kar Basin** is a high-altitude wetland complex, consisting of two principal waterbodies, Startsapuk Tso, a freshwater lake of about 438 hectares to the south, and Tso Kar itself, a hypersaline lake of 1800 hectares to the north, situated in the Changthang region of Ladakh, India. It is called Tso Kar, meaning white lake, because of the white salt efflorescence found on the margins due to the evaporation of highly saline water.

10 PM Compilation for the Month of December, 2020

It is southwest of the Pangong Tso lake.



Statement 2 is correct. India has added Tso Kar Wetland Complex in Ladakh as its 42nd Ramsar site, which is a second one in the Union Territory (UT) of Ladakh. The Tso Kar Basin is an A1 Category Important Bird Area (IBA) as per Bird Life International and a key staging site in the Central Asian Flyway.

Q.8) Where is **Androth Island**?

- a) Lakshadweep
- b) Odisha
- c) Kerala
- d) Andaman & Nicobar Islands

Correct answer: A

Explanation: Androth Island, also known as Androth Island, is a small inhabited island in the Union Territory of **Lakshadweep**, a group of 36 coral islands scattered in the Arabian Sea off the western coast of India.

A sailing expedition from Kochi to Androth Island in Lakshadweep and Minicoy group of islands and back is being undertaken by Offshore Sailing Club, Kochi under the aegis of Southern Naval Command.

Q.9) Which of the following is/are correctly matched?

- 1. Bambari - Central African Republic
- 2. Abuja - Nigeria
- 3. Quang Nam - Vietnam

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Bambari is a town in the Central African Republic, lying on the Ouaka River. It was seized by rebel fighters on recently ahead of elections, is now in the hands of United Nations peacekeepers and national security forces.

10 PM Compilation for the Month of December, 2020

Abuja is the capital city of Nigeria.

Quang Nam is a province in central Vietnam, bordering Laos to the west and the sea to the east. India – Vietnam recently announced New Development Partnership projects in heritage conservation in Vietnam (F-block of Temple at My Son; Dong Duong Buddhist Monastery in Quang Nam and Nhan Cham Tower in Phu Yen).

Q.10) Which of the following is/are recognized as **Important Bird Areas (IBAs)** in India?

1. Tso Kar Basin
2. Tso Moriri
3. Pangong Tso

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: All of the above are recognized as **Important Bird Areas (IBAs)**.

The IBA programme of Birdlife International aims to identify, monitor and protect a global network of IBAs for conservation of the world's birds and associated biodiversity.

The IBAs serve as conservation areas for protection of birds at the global, regional or sub-regional level. According to Birdlife International, designation of IBAs is based on standardized criteria, namely (i) hold significant numbers of one or more globally threatened bird species, (ii) be one of a set of sites that together hold a suite of restricted-range species or biome-restricted species and (iii) have exceptionally large numbers of migratory or congregatory birds.

Q.11) Which of the following species can be found in the Tso Kar wetland?

1. Black-necked Crane (*Grus nigricollis*)
2. Great Crested Grebe (*Podiceps cristatus*)
3. Bar-headed Geese (*Anser indicus*)

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: The **Tso Kar Basin** is a high-altitude wetland complex, consisting of two principal waterbodies, Startsapuk Tso, a freshwater lake of about 438 hectares to the south, and Tso Kar itself, a hypersaline lake of 1800 hectares to the north, situated in the Changthang region of Ladakh.

The Tso Kar Basin is an A1 Category Important Bird Area (IBA) as per Bird Life International and a key staging site in the Central Asian Flyway.

The site is also one of the most important breeding areas of the Black-necked Crane (*Grus nigricollis*) in India. This IBA is also the major breeding area for Great Crested Grebe (*Podiceps cristatus*), Bar-headed Geese (*Anser indicus*), Ruddy Shelduck (*Tadorna ferruginea*), Brown-headed Gull (*Larus brunnicephalus*), Lesser Sand-Plover (*Charadrius mongolus*) and many other species.

10 PM Compilation for the Month of December, 2020

Q.12) Where is **Kilauea Volcano**?

- a) Indonesia
- b) Argentina
- c) Japan
- d) Hawaii

Correct answer: D

Explanation: **Kilauea** is the youngest and most active Hawaiian shield volcano, located on the southern part of the Island of Hawai'i, known as Big Island. Since 1952, Kilauea has erupted 34 times. From 1983 to 2018 eruptive activity was nearly continuous along the volcano's East Rift Zone.

Hawaii's Kilauea volcano erupted 20th December 2020. The eruption occurred within the Halema'uma'u crater. A magnitude 4.4 earthquake followed the eruption.

10 PM Compilation for the Month of December, 2020

INTERNATIONAL RELATIONS/ORGANISATIONS

Q.1) Which of the following country's incumbent Head of Government have been awarded **Legion of Merit** recently?

1. India
2. Australia
3. Japan

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: A

Explanation: The **President of the United States of America** conferred the highest decoration, The Legion of Merit, Degree Chief Commander, to India's Prime Minister Narendra Modi on 21 December 2020.

The Legion of Merit, in the highest degree of the Chief Commander, is a prestigious award conferred by the President of the United States, typically upon Heads of State or Heads of Government of other countries.

The Legion of Merit, Degree Chief Commander, was also awarded to the Prime Minister of **Australia** Scott Morrison, and former (*not incumbent*) Prime Minister of **Japan**, Shinzo Abe.

The US had last awarded Legion of Merit to late Amir of Kuwait Sheikh Sabah al-Ahmed Al-Jaber Al-Sabah on September 18, 2020 as the senior most Royal in the Middle-East for bridging divides in the restive region.

Q.2) Consider the following statements:

1. Climate Ambition Summit 2020 was convened recently by the World Wildlife Fund for Nature (WWF).
2. The next Conference of the Parties (COP 26) to the UN Framework Convention on Climate Change (UNFCCC) is to be hosted by India in 2021.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Both statements are incorrect.

The **United Nations, United Kingdom and France co-hosted the Climate Ambition Summit 2020**, in partnership with Chile and Italy. It marked the fifth anniversary of the Paris Agreement, and provided a platform for government and non-governmental leaders to demonstrate their commitment to the Paris Agreement and the multilateral process.

The summit is positioned as a "sprint to **Glasgow**," where the 26th session of the Conference of the Parties (COP 26) to the UN Framework Convention on Climate Change (UNFCCC) is scheduled to take place from 1–12 November 2021.

Q.3) Consider the following statements regarding the **Global Burden of Disease Study (GBD) 2019**:

10 PM Compilation for the Month of December, 2020

1. About 17 percent of the total deaths in India in 2019 have been attributed to air pollution.
2. Lost output from premature deaths and morbidity attributable to air pollution accounted for economic losses of more than one percent of GDP.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: In partnership with **Institute for Health Metrics and Evaluation (IHME)**, The Lancet has published global health estimates from the GBD study since 2010. In December 2018, the World Health Organisation and the IHME announced a formal partnership to collaborate to produce a single set of global health estimates to strengthen the validity of the GBD.

Statement 1 is correct. 1.67 million deaths were attributable to air pollution in India in 2019, **17.8% of the total deaths** in the country, the majority of which were from outdoor particulate air pollution (0.98 million) and household air pollution (0.61 million).

Household air pollution is decreasing in India resulting in 64% reduction in the death rate attributable to it from 1990 to 2019, whereas the death rate from outdoor particulate air pollution has increased during this period by 115%.

Statement 2 is correct. Lost output from premature deaths and morbidity attributable to air pollution accounted for economic losses of US\$28.8 billion and \$8.0 billion, respectively, in India in 2019. This total loss of **\$36.8 billion was 1.36%** of India's gross domestic product (GDP).

Q.4) Which of the following initiatives have been **launched by India** as a founding member?

1. International Solar Alliance
2. Coalition for Disaster Resilient Infrastructure
3. Leadership Group for Industry Transition

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: The **International Solar Alliance** was launched jointly by the Hon'ble Prime Minister of India and the President of France during COP21 in Paris. It aims to contribute to the implementation of the Paris Climate Agreement through rapid and massive deployment of solar energy.

Prime Minister of India announced a global **Coalition for Disaster Resilient Infrastructure (CDRI)**, at the UN Climate Action Summit 2019. The CDRI is a multi-stakeholder global partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and academic and knowledge institutions.

The governments of Sweden and India, with support from the World Economic Forum (WEF) launched the **Leadership Group for Industry Transition (LeadIT)** at the UN Secretary General's Climate Action Summit in September, 2019. The group is open for both

10 PM Compilation for the Month of December, 2020

government and business leaders and aims to enable the transition of heavy industry towards net zero carbon emissions by 2050.

Q.5) Consider the following statements:

1. India is the largest fish producing country in the world.
2. Fisheries sector of India contributes more than five percent to the country's Gross Value Added (GVA).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Fisheries and aquaculture continue to be an important source of food, nutrition, income and livelihood to millions of people. Export earnings from the Fisheries sector has been Rs.46,662.85 crores during 2019-20.

The sector provides livelihood support to about 280 lakh people at the primary level and almost twice the number along the value chain and the annual average growth rate in the Fisheries sector has been 7% over the last few years. Fish being an affordable and rich source of animal protein, is one of the healthiest options to mitigate hunger and nutrient deficiency.

Statement 1 is incorrect. **India is the second largest fish producing country** in the world accounting for 7.56% of global production after China.

Statement 2 is incorrect. Fisheries sector is contributing about **1.24% to the country's Gross Value Added (GVA)** and over 7.28% to the agricultural GVA.

Q.6) Which of the following is/are correctly matched?

1. Yeondeunghoe - Lantern lighting festival in the Republic of Korea
2. Toguz Korgool - Strategy and intelligence game in Central Asia

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Option 1 is correctly matched. **YeonDeungHoe, a Korean traditional cultural festival** in which participants light up lanterns to celebrate Buddha's Birthday, has become a UNESCO intangible cultural heritage of Humanity.

Option 2 is correctly matched. **'Traditional intelligence and strategy game: Togyzqumalaq, Toguz Korgool, Mangala/Gocurme'** submitted with Kazakhstan and Kyrgyzstan, has been inscribed on the UNESCO Representative List of Intangible Cultural Heritage of Humanity, during the 15th Session of Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage which is being held online between 14-19 December 2020.

Q.7) Consider the following statements regarding the **Permanent Court of Arbitration (PCA)**:

1. India is a party to the 1899 convention establishing the Permanent Court of Arbitration.
2. The 'Enrica Lexie' Incident (Italy v. India) case is being arbitrated at the PCA.

10 PM Compilation for the Month of December, 2020

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The PCA was established by the Convention for the Pacific Settlement of International Disputes, concluded at **The Hague in 1899** during the first Hague Peace Conference. India is party to this convention.

Statement 2 is correct. The '**Enrica Lexie Incident (Italy v. India) case** proceedings were instituted under the United Nations Convention on the Law of the Sea ("UNCLOS") at PCA. The dispute arises from an incident that occurred on 15 February 2012 approximately 20.5 nautical miles off the coast of India involving the "Enrica Lexie", an oil tanker flying the Italian flag, and India's subsequent exercise of criminal jurisdiction over the incident and over two Italian marines from the Italian Navy.

The Permanent Court of Arbitration in The Hague has ruled in favour of Cairn Energy stating that the Indian government failed to uphold its obligations under the India-UK bilateral investment treaty.

Q.8) Consider the following statements regarding the **European Union**:

1. The European Commission consists of the heads of state or government of the EU member states.
2. The eurozone consists of all countries the EU and others who use it as national currency.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Statement 1 is incorrect. The **European Union** is a unified trade and monetary body of 27 member countries. It eliminates border controls between members. The open border allows the free flow of goods and people.

The European Council is a collegiate body that defines the overall political directions and priorities of the European Union. It comprises the heads of state or government of the EU member states, along with the President of the European Council and the President of the European Commission.

Statement 2 is incorrect. The eurozone consists of all countries that use the euro. All EU members pledge to convert to the euro, but only 19 have so far.

Q.9) Which of the following institution has released the **Global Status Report for Building and Construction, 2020**?

- a) United Nations Environment Programme
- b) United Nations Human Settlements Programme
- c) International Energy Agency
- d) World Economic Forum

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: United Nations Environment Programme (UNEP) has released a report titled Global Status Report for Building and Construction, 2020.

The report has been prepared by the Global Alliance for Buildings and Construction (GlobalABC), the Secretariat of which is hosted by the UNEP.

-- The construction activities dropped by 20-30% in 2020 compared to 2019 because of the COVID-19 pandemic and 10% of overall jobs lost or at risk in the building construction sector.

-- The building sector emitted more than a third of global energy-related carbon dioxide (CO₂) in 2019.

-- The CO₂ emissions increased due to a high proportion of fossil fuels used for power generation, combined with higher activity levels in regions where electricity remains carbon-intensive.

Q.10) Which of the following country(s) **withdrew from European Union** after a popular vote?

1. Greenland
2. United Kingdom
3. Turkey

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 only
- c) 2 and 3 only
- d) 1 and 3 only

Correct answer: A

Explanation: Greenland, an autonomous country within the Kingdom of Denmark is one of the EU countries' overseas countries and territories (OCT) associated to the European Union. Greenland joined the then European Community in 1973 as a county along with Denmark, but after gaining autonomy in 1979 with the introduction of home rule within the Kingdom of Denmark, **Greenland voted to leave** in 1982 and left in 1985, to become an OCT.

Brexit happened because a public vote - or referendum - was held in June 2016, to decide whether the UK should be in the EU. Leave won by 52% to 48%.

Q.11) Which of the following is/are correctly matched?

1. Nha Rong Port - Vietnam
2. Gwadar Port - Iran
3. Bandar Abbas - Azerbaijan

Select the correct answer using the code given below:

- a) 1 only
- b) 2 and 3 only
- c) 3 only
- d) All of the above

Correct answer: A

Explanation: Option 1 is correctly matched. **Nha Rong port** is in Vietnam. Indian Naval Ship Kiltan, carrying humanitarian assistance, arrived at Vietnam's Nha Rong Port, Ho Chi Minh.

10 PM Compilation for the Month of December, 2020

The assistance is as a part of Mission Sagar-III, India's Humanitarian Assistance and Disaster Relief (HADR) assistance to Friendly Foreign Countries during the ongoing pandemic.

Option 2 is incorrectly matched. **Gwadar port** is a sea port situated on the Arabian Sea at Gwadar in Balochistan province of Pakistan.

Option 3 is incorrectly matched. **Bandar Abbas** is a port city southern coast of Iran, on the Persian Gulf. The city occupies a strategic position on the narrow Strait of Hormuz, and it is the location of the main base of the Iranian Navy.

Q.12) Consider the following statements regarding the **Asia-Pacific Broadcasting Union (ABU)**:

1. It is an intergovernmental organization of national broadcasting regulators.
2. No institution from India is a member to the group.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Statement 1 is incorrect. The **Asia-Pacific Broadcasting Union (ABU)** is a non-profit, non-government, professional association of broadcasting organisations, formed in 1964 to facilitate the development of broadcasting in the Asia-Pacific region and to organise co-operative activities amongst its members.

Statement 2 is incorrect. All India Radio and Doordarshan under **Prasar Bharati** are members of the ABU. Prasar Bharati CEO Shashi Sekhar Vempati has been elected as Vice President of Asia-Pacific Broadcasting Union (ABU).

Q.13) Which of the following is/are correctly matched?

1. Budima dance - Zambia
2. Pantun - Malaysia

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Option 1 is correctly matched. **Zambia's Budima Dance** which is practiced by the Wee People of Zambezi/Gwembe Valley in Southern Province has been approved unanimously for Inscription on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity.

Option 2 is correctly matched. **Pantun is an old Malay poem** that usually consists of four lines in each stanza. The first two lines are hints and the other two carries the actual meaning. It has been listed under the Representative List of the Intangible Cultural Heritage of Humanity category by UNESCO.

10 PM Compilation for the Month of December, 2020

GEOGRAPHY/ENVIRONMENT

Q.1) Which of the following region is/are correctly matched to the respective country?

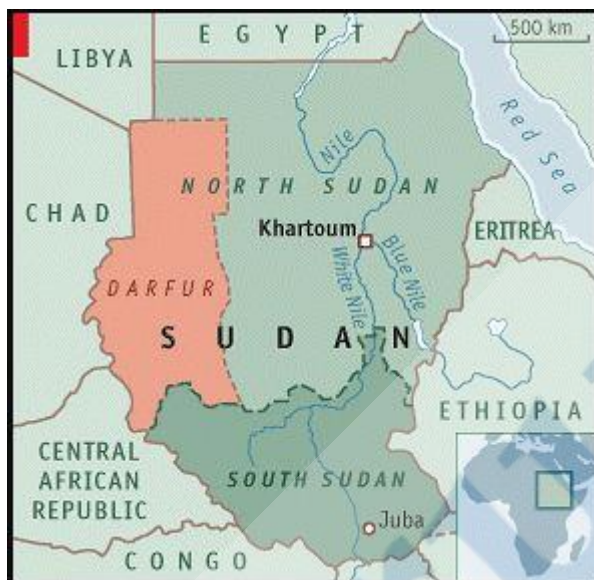
1. Khartoum - Sudan
2. Juba - South Sudan
3. Darfur - Syria

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: A

Explanation: **Khartoum** is the capital of **Sudan** and **Juba** is the capital of **South Sudan**. Darfur is a conflict zone in the Western Sudan.



Q.2) Which of the following tribe is/are correctly matched to the respective State?

1. Malayali - Tamil Nadu
2. Pateliya - Madhya Pradesh
3. Oraon - Jharkhand

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: Option 1 is correctly matched. The **Malayali** is a tribal group found in the Eastern Ghats of northern **Tamil Nadu**. The name derives from malai-alam meaning "hill-place," denoting an inhabitant of the hills. They are the largest Scheduled Tribe in Tamil Nadu.

Option 2 is correctly matched. The **Pateliya tribals** found in the Indian states of **Gujarat, Madhya Pradesh, Rajasthan** and some parts of Maharashtra and Karnataka. The term 'Pateliya' has been derived from the term Patel which locally means 'headman'.

10 PM Compilation for the Month of December, 2020

Option 3 is correctly matched. **Oraon** are a Dravidian-speaking ethnic group inhabiting in Indian states of **Jharkhand, West Bengal, Odisha and Chhattisgarh**. They predominantly speak Kurukh as their native language.

Q.3) Which of the following beach(s) in India have been awarded with the **International Blue Flag Certification**?

1. Shivrajpur (Gujarat)
2. Ghoghla (Diu)
3. Rushikonda (Andhra Pradesh)

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: **Blue Flag certification** is a globally recognised eco-label accorded by "**Foundation for Environment Education in Denmark**" based on 33 stringent criteria.

India secured the International Blue Flag Certification for eight beaches on 6th October 2020, when an International Jury comprising of member organizations UNEP, UNWTO, UNESCO, IUCN, ILS, FEE etc. announced the award at Copenhagen, Denmark.

The beaches where the International Blue Flags were hoisted recently are: Kappad (Kerala), Shivrajpur (Gujarat), Ghoghla (Diu), Kasarkod and Padubidri (Karnataka), Rushikonda (Andhra Pradesh), Golden (Odisha) and Radhanagar (Andaman & Nicobar Islands).

Q.4) Consider the following statements regarding the **Kolar Leaf-nosed Bat**:

1. This species is endemic to Karnataka.
2. It is listed as Critically Endangered in the IUCN Red List.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. The **Kolar Leaf-Nosed Bat** is exclusive to Karnataka. Till few years back, it was found in only two caves in the village of Hanumanahalli in Kolar district of Karnataka. For reasons that are still unknown, the bat became locally extinct in one of the two caves.

Statement 2 is correct. The **Kolar Leaf-nosed Bat (Hipposideros hypophyllus)** is listed as Critically Endangered in the IUCN Red List with decreasing population trend.

There are five species of bats that live in the caves of Hanumanahalli, of which the Kolar Leaf-Nosed Bat is just one. According to recent estimates, there are just 150 Kolar Leaf-Nosed Bats left in these caves.

Q.5) Consider the following statements regarding **Carbon Neutrality**:

1. It is achieved when anthropogenic CO₂ emissions are balanced by anthropogenic CO₂ removals over a specified period.
2. India has targeted to achieve Carbon Neutrality by 2050 as per its Intended Nationally Determined Contributions (INDCs).

Which of the statements given above is/are correct?

10 PM Compilation for the Month of December, 2020

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. **Net zero carbon dioxide (CO₂) emissions** are achieved when anthropogenic CO₂ emissions are balanced by anthropogenic CO₂ removals over a specified period. Net zero CO₂ emissions are also referred to as carbon neutrality.

Statement 2 is incorrect. **India's Intended Nationally Determined Contributions (INDCs):**

- To reduce the emissions intensity of GDP by 33%–35% by 2030 below 2005 levels;
- To increase the share of non-fossil-based energy resources to 40% of installed electric power capacity by 2030, with help of transfer of technology and low-cost international finance including from Green Climate Fund (GCF);
- To create an additional (cumulative) carbon sink of 2.5–3 GtCO₂e through additional forest and tree cover by 2030.

Q.6) Which of the following port(s) is/are correctly matched to respective country?

- 1. Sihanoukville Port - Cambodia
- 2. Nha Rong Port - Vietnam
- 3. Kuantan Port - Malaysia

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: D

Explanation: All of the above are correctly matched.

Indian Naval Ship Kiltan, carrying humanitarian assistance as part of ongoing Mission Sagar-III arrived at **Sihanoukville Port, Cambodia** after offloading relief material for flood-affected people at **Vietnam's Nha Rong Port**, Ho Chi Minh City.

Kuantan Port is a multipurpose port in the East Coast Region of Peninsular Malaysia.

Q.7) **Dard Aryans** are tribal people in which of the following State/UT?

- a) Ladakh
- b) Arunachal Pradesh
- c) Assam
- d) Haryana

Correct answer: A

Explanation: Some 200 km from Leh are the villages of Dha, Hanu, Garkone and Darchik on both sides of the Indus River, inhabited by the **Buddhist Dard Tribes**. The villages are together called the "Aryan valley. The word 'Dard' is derived from a Sanskrit word, 'Daradas', which means people who live on hillsides.

The 'Dard Aryan' is not among the list of notified Schedule Tribes.

Meteorological (Met) Centre at Leh (Ladakh) has been launched recently. It will provide forecast for important tourist places like Nubra, Changthang, Pangong Lake, Zaskar, Kargil, Drass, Dha-Baima (Aryan valley), Khalsi among others.

10 PM Compilation for the Month of December, 2020

Q.8) Monpa tribe belongs to which of the following State/UT?

- a) Arunachal Pradesh
- b) Himachal Pradesh
- c) Uttarakhand
- d) Ladakh

Correct answer: A

Explanation: Monpa people are of Mongoloid descent and live in the regions of Tawang and West Kameng in **Arunachal Pradesh**.

The art of making **Monpa handmade paper** originated over 1000 years ago. Gradually the art became an integral part of local custom and culture in Tawang in Arunachal Pradesh. Once produced in every household in Tawang, this handmade paper was a major source of livelihood for the locals.

However, the handmade paper industry almost disappeared in the last 100 years; prompting KVIC to plan revival of this ancient art.

KVIC has commissioned a Monpa handmade paper making unit in Tawang which not only aims at reviving the art but also engaging the local youths with this art professionally and earn.

Q.9) Consider the following statements:

- 1. India is the world's largest producer and exporter of turmeric.
- 2. Erode turmeric is recognized a Geographical Indication (GI).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **India is the largest manufacturer, consumer and exporter of Turmeric**. Turmeric occupies about 6% of the total area under spices and condiments in India.

Curcumin, a substance found in turmeric, in the pharmaceutical for treating critical ailments like cancer, food and cosmetic industries is a major factor driving the growth of the global curcumin market. The rise in demand of curcumin is largely due to the growing awareness among consumers regarding its anti-oxidant and anti-inflammatory properties.

Statement 2 is correct. **Erode's** unique slender turmeric has a GI tag for its distinctive fragrance and color.

Q.10) Which of the following country (or part of it) **celebrates the New Year before** the rest of them?

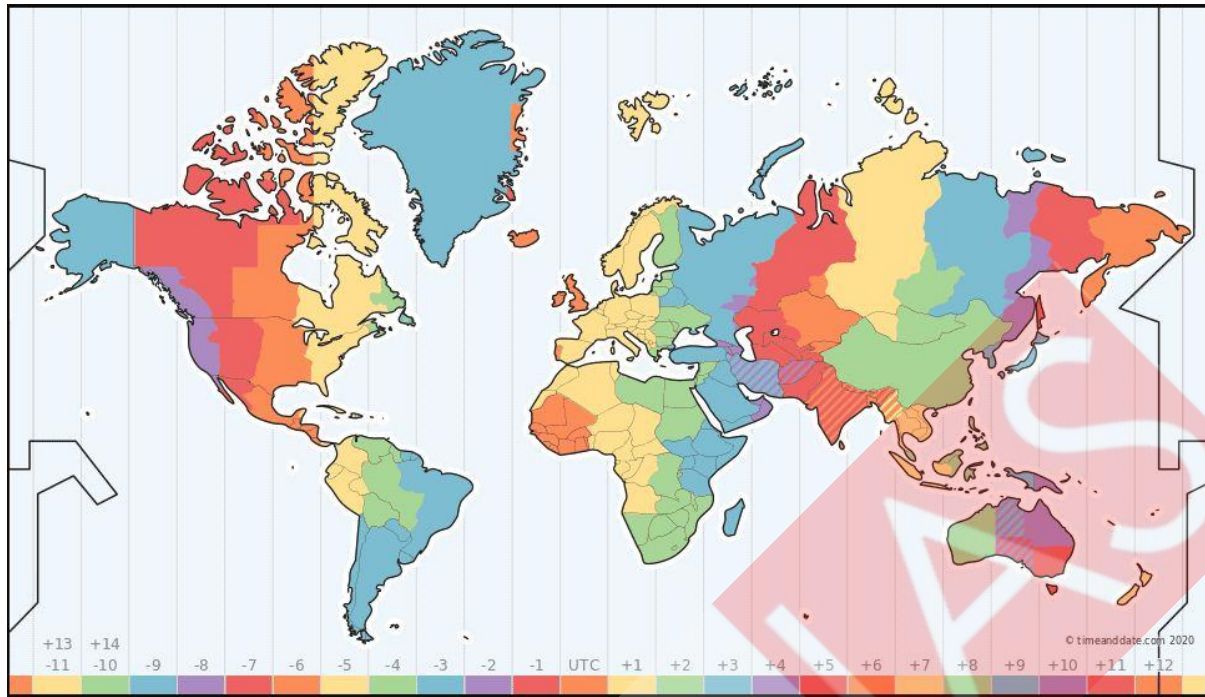
- a) Japan
- b) Australia
- c) China
- d) Myanmar

Correct answer: B

Explanation: Japan Standard Time is 9 hours ahead of UTC and Australian Eastern Standard Time (AEST) is 10 hours ahead of Coordinated Universal Time (UTC).

Eastern region of Australia celebrates the New Year before Japan.

10 PM Compilation for the Month of December, 2020



10 PM Compilation for the Month of December, 2020

ECONOMICS

Q.1) Consider the following statements regarding a **Zero-Coupon Bond**?

1. It does not offer any profit at maturity.
2. It trades at a higher price than the face value.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Both statements are incorrect.

A **zero-coupon bond** is a debt security that does not pay interest but instead trades at a deep discount, rendering a profit at maturity, when the bond is redeemed for its full face value.

The difference between the purchase price of a zero-coupon bond and the par value, indicates the investor's return.

Q.2) Which of the following statement(s) is/are correct regarding the **floating rate bonds**?

1. The interest rate offered is fixed while the maturity period is not defined.
2. The rate of interest of a floating rate bond is generally linked to a benchmark rate and is reset at a regular interval.

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. Unlike traditional bonds that pay a fixed rate of interest, **floating-rate bonds have a variable rate of interest**. The maturity period is not variable.

Statement 2 is correct. The rate of interest of a floating rate bond is linked to a benchmark rate and is reset at a regular interval.

Interest rate risk is largely mitigated as these bonds will pay higher return when prevailing rates are high. Central banks issue floating rate bonds from time to time.

The Government of India recently announced the Sale (Re-issue) of 'GoI Floating Rate Bonds, 2033' for a notified amount of Rs2,000 crore (nominal) through price based auction.

Q.3) Consider the following statements regarding the recently launched **Digital Payment index (DPI)** for India:

1. It has been launched by the National Payments Corporation of India (NPCI).
2. DPI will capture the extent of digitisation of payments across the country.
3. DPI has been constructed with March 2018 as the base period.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 3 only
- d) 1 and 3 only

10 PM Compilation for the Month of December, 2020

Correct answer: B

Explanation: Statement 1 is incorrect. The **Reserve Bank of India** has constructed a composite **Digital Payments Index (DPI)** comprising of 5 broad parameters: (i) Payment Enablers (weight 25%), (ii) Payment Infrastructure – Demand-side factors (10%), (iii) Payment Infrastructure – Supply-side factors (15%), (iv) Payment Performance (45%) and (v) Consumer Centricity (5%).

Statement 2 is correct. The RBI-DPI aims to measure the deepening and **penetration of digital payments** in the country over different time periods.

Statement 3 is correct. The RBI-DPI has been constructed with **March 2018 as the base period**, i.e. DPI score for March 2018 is set at 100. The DPI for March 2019 and March 2020 work out to 153.47 and 207.84 respectively, indicating appreciable growth. Going forward, RBI-DPI shall be published on RBI's website on a semi-annual basis from March 2021 onwards with a lag of 4 months.

Q.4) Consider the following statements regarding the **International Financial Services Centres Authority (IFSCA)**:

1. It is a unified authority for the development and regulation of financial services and financial institutions in the International Financial Services Centre (IFSC) in India.
2. IFSCA is an Associate Member of the International Organization of Securities Commissions (IOSCO).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: The International Financial Services Centres Authority (IFSCA) has been established on April 27, 2020 under the **International Financial Services Centres Authority Act, 2019**.

Statement 1 is correct. The IFSCA is a unified authority for the **development and regulation of financial products, financial services and financial institutions** in the International Financial Services Centre (IFSC) in India. At present, the GIFT IFSC is the maiden international financial services centre in India.

Statement 2 is correct. The International Financial Services Centres Authority (IFSCA) has become an Associate Member of the **International Organization of Securities Commissions (IOSCO)**.

The IOSCO is the international organization that brings together the world's securities regulators, covering more than 95% of the world's securities markets, and is the global standard setter for the securities sector.

Q.5) Consider the following statements regarding the **GST revenue** this financial year [2020-21] so far:

1. The GST revenues during December 2020 have been the highest since the introduction of GST.
2. The December 2020 is fifth month in a row in the current financial year to have GST revenue more than 1 Lakh crore.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2

10 PM Compilation for the Month of December, 2020

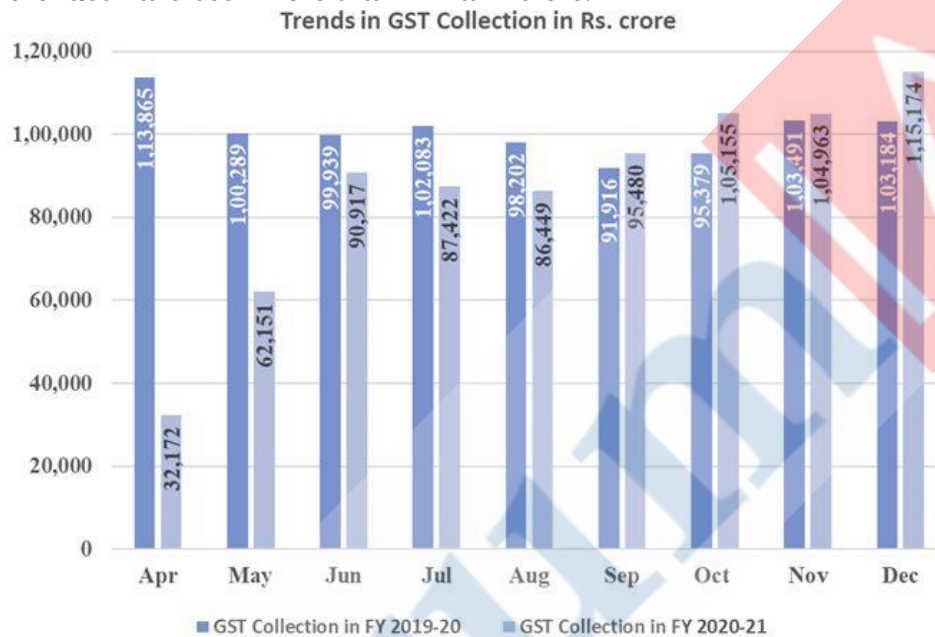
d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The gross GST revenue collected in the month of **December 2020 is Rs 1,15,174 crore**. The GST revenues during December 2020 have been the **highest since the introduction of GST** and it is the first time that it has crossed ₹ 1.15 lakh crore.

The highest GST collection till now was ₹ 1,13,866 crore in the month of April 2019. The revenues of April normally tend to be high since they pertain to the returns of March, which marks the end of financial year.

Statement 2 is incorrect. This is the **third month in a row in the current financial year** after the economy has been showing signs of recovery post pandemic that the GST revenues have been more than ₹ 1 lakh crore.



10 PM Compilation for the Month of December, 2020

SCIENCE & TECHNOLOGY

Q.1) Consider the following statements:

1. The white blood cells consist primarily of macrophages, B-lymphocytes and T-lymphocytes.
2. Active immunity can only be acquired by surviving the infection itself.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. Blood contains red blood cells, for carrying oxygen to tissues and organs, and white or immune cells, for fighting infection. These white cells consist primarily of **macrophages, B-lymphocytes and T-lymphocytes**.

Statement 2 is incorrect. Active immunity is stimulation of the immune system to produce antigen-specific humoral (antibody) and cellular immunity.

One way to acquire active immunity is to survive infection with the disease-causing form of the organism.

Another way to produce active immunity is by vaccination. Vaccines interact with the immune system and often produce an immune response similar to that produced by the natural infection, but they do not subject the recipient to the disease and its potential complications. Many vaccines also produce immunologic memory similar to that acquired by having the natural disease.

Q.2) What is **Pneumosil**, which has been in news recently?

- a) A new strain of SARS-CoV-2
- b) Pneumococcal vaccine indigenously developed in India
- c) The Pneumococcal disease caused by SARS-CoV-2
- d) A pentavalent vaccine to be administered under the Universal Vaccination Programme

Correct answer: B

Explanation: Serum Institute of India (SII) unveiled India's first indigenously developed **pneumococcal vaccine** recently. **Pneumosil**, was developed through a collaboration spanning over a decade with the health organisation PATH and the Bill and Melinda Gates Foundation.

It targets the pneumococcal bacterium, which causes pneumonia and other serious life-threatening diseases such as meningitis and sepsis.

Q.3) Consider the following statements regarding the **Oxford/AstraZeneca Vaccine** for COVID-19:

1. It is an RNA type vaccine.
2. It has to be stored under extremely cold temperature (-70C) to maintain its effectiveness.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

10 PM Compilation for the Month of December, 2020

Correct answer: D

Explanation: Statement 1 is incorrect. The Oxford University/AstraZeneca vaccine is not a RNA type vaccine; it rather is made from a weakened version of a common cold virus (known as an **adenovirus**) from chimpanzees that carries genetic material from S protein of SARS-COV-2 to generate immune response in human body.

Statement 2 is incorrect. The Oxford/AstraZeneca vaccine can be transported and stored at **2C-8C temperature** for up to six months.

It is being produced in India by the Serum Institute of India under the brandname COVISHIELD.

It has been approved for use in the UK by the regulator, the Medicines and Healthcare products Regulatory Agency (MHRA).

Q.4) Which of the following **COVID-19 vaccine** has become the first one to receive emergency validation from **World Health Organisation?**

- a) Oxford University/AstraZeneca developed COVISHIELD
- b) Pfizer/BioNTech vaccine for COVID-19
- c) Moderna COVID-19 vaccine
- d) Sputnik V

Correct answer: B

Explanation: The World Health Organization (WHO) today listed the Comirnaty COVID-19 mRNA vaccine for emergency use, making the **Pfizer/BioNTech vaccine** the first to receive emergency validation from WHO since the outbreak began a year ago.

The **WHO's Emergency Use Listing (EUL)** opens the door for countries to expedite their own regulatory approval processes to import and administer the vaccine. It also enables UNICEF and the Pan-American Health Organization to procure the vaccine for distribution to countries in need.

The Comirnaty vaccine requires storage using an ultra-cold chain; it needs to be stored at -60°C to -90°C degrees. This requirement makes the vaccine more challenging to deploy in settings where ultra-cold chain equipment may not be available or reliably accessible. For that reason, WHO is working to support countries in assessing their delivery plans and preparing for use where possible.

Q.5) Consider the following statements regarding the **“Thirty Metre Telescope”**:

- 1. It is being built at Hanle, Ladakh.
- 2. The TMT project is an international partnership among various nations including China and India.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: B

Explanation: Statement 1 is incorrect. The **Thirty Metre Telescope** is proposed to be sited on top of the **Mauna Kea**, Hawaii. Project is expected to be completed in the early 2030s.

Statement 2 is correct. The Thirty-meter telescope (TMT) project is an international partnership between CalTech, Universities of California, Canada, Japan, China, and India; through the Department of Science and Technology (DST) and Department of Atomic Energy (DAE).

10 PM Compilation for the Month of December, 2020

The “Thirty Meter” in TMT refers to the 30-meter diameter of the main mirror or the primary mirror. Since making a single 30-m glass blank for astronomy is not possible, it comprises 492 segments of 1.45-m each. The complex project involves making all the 492 segments to act as one single mirror of 30-m diameter while the telescope is tracking the sky with extreme precision.

India’s contribution relates to the software, electronics and hardware to control the 492 segments behave as a single mirror within a few nanometers. More than a dozen industries are involved in making these very precision systems.

Q.6) Which of the following statements correctly defines the term ‘**Brachytherapy**’?

- a) Internal radiation therapy to treat cancers and tumors
- b) Supplementary oxygen for people suffering from lung disease
- c) A branch of traditional Indian medicinal system
- d) Prophylaxis for vaccine side-effects

Correct answer: A

Explanation: Brachytherapy is a type of radiation therapy used to treat cancer. It places **radioactive sources** inside the patient to kill cancer cells and shrink tumors. A small radioactive material called a source is put into your body, inside or close to the cancer.

There are different types of radioactive sources (also called implants) such as seeds, wires or discs. They deliver radiotherapy to the area, destroying the cancer cells. Healthy tissue near to the cancer gets a lot less radiation.

Bhabha Atomic Research Centre (BARC) Mumbai has developed Eye Cancer therapy in the form of the first indigenous Ruthenium 106 Plaque for treatment of Ocular Tumours.

Q.7) Consider the following statements:

- 1. Random number generators have application in field of cryptography.
- 2. Council of Scientific and Industrial Research is the only institution in India to have developed a Quantum Random Number Generator (QRNG).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. **Random numbers** have essential roles in many fields, such as Quantum Communication, cryptography (key generation, key wrapping, authentication etc.), scientific simulations, lotteries and fundamental physics experiments. Cryptography requires numbers that attackers can’t guess.

The generation of genuine randomness is generally considered impossible with classical means.

Statement 2 is incorrect. **DRDO Young Scientist Laboratory for Quantum Technologies (DYSL-QT)** has developed a Quantum Random Number Generator (QRNG) which detects random quantum events and converts those into a stream of binary digits.

The Laboratory has developed a fiber-optic branch path based QRNG. Branch path based QRNG is based on the principle that if a single photon is incident on a balanced beam splitter, it will take either of the beam-splitter output paths randomly. As the path chosen by photon is random, the randomness is translated to sequence of bits.

10 PM Compilation for the Month of December, 2020

Q.8) Consider the following statements:

1. Proxima Centauri is the nearest star to the Sun.
2. BLC1 is a radio signal being estimated to have emitted from Proxima Centauri.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Statement 1 is correct. **Alpha Centauri star system**, a triple system, is the nearest star system to our sun. Of the three stars in Alpha Centauri, Proxima is thought to be the one actually closest to our sun, at 4.22 light-years away.

Statement 2 is correct. **Breakthrough Listen project**, started by the legendary physicist Stephen Hawking, regularly spot blasts of radio waves using two powerful telescopes– the Parkes Observatory in Australia or the Green Bank Observatory in the US.

BLC1 (Breakthrough Listen Candidate 1) is a candidate SETI radio signal announced in December 2020, possibly coming from the star Proxima Centauri. and an apparent shift in its frequency is consistent with the Doppler effect caused by the movement of Proxima b, a planet of Proxima Centauri.

Q.9) Consider the following statements regarding the **Pneumonia**:

1. It causes infection in the lungs.
2. Bacteria, viruses, or fungi may cause pneumonia.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: C

Explanation: Both statements are correct.

Pneumonia is an infection of the lungs that can cause mild to severe illness in people of all ages. It causes the air sacs, or alveoli, of the lungs to fill up with fluid or pus. Bacteria, viruses, or fungi may cause pneumonia. Symptoms can range from mild to serious and may include a cough with or without mucus (a slimy substance), fever, chills, and trouble breathing.

Some patients with coronavirus disease 2019 (COVID-19) have had pneumonia.

10 PM Compilation for the Month of December, 2020

INTERNATIONAL RELATIONS/ORGANISATIONS

Q.1) What does the **Nelson Mandela Rules 2015** relate to?

- a) Fair treatment of prisoners
- b) Minimum civil-political rights in a democratic nation
- c) Standards for members of the Judiciary
- d) Universal ownership of the global commons

Correct answer: A

Explanation: The **Standard Minimum Rules for the Treatment of Prisoners** were first adopted in 1957, and in 2015 were revised and adopted by the UN General Assembly as the Nelson Mandela Rules.

They are supplemented by the UN Bangkok Rules on women prisoners.

The Rules give guidance on all aspects of prison management, from admission and classification to the prohibition of torture and limits on solitary confinement. There is guidance on healthcare, recruitment and training of prison staff, as well as disciplinary sanctions.

Q.2) Which of the following country is not a member of the **Arab League**?

- a) Iran
- b) Saudi Arabia
- c) Syria
- d) Yemen

Correct answer: A

Explanation: The **League of Arab States, or Arab League**, is a voluntary association of countries whose peoples are mainly Arabic speaking or where Arabic is an official language. It has 22 members including Palestine, which the League regards as an independent state. Its stated aims are to strengthen ties among member states, coordinate their policies and direct them towards a common good.



10 PM Compilation for the Month of December, 2020

Q.3) Consider the following statements regarding the **Asia-Pacific Economic Cooperation (APEC)**:

1. It is sub-group under the G20 to leverage the growing interdependence of the Asia-Pacific.

2. India and China both are member economies to the APEC.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Statement 1 is incorrect. The **Asia-Pacific Economic Cooperation (APEC)** is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific.

Statement 2 is incorrect. **India is not a member to APEC.**

APEC's 21 member economies are Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; The Philippines; The Russian Federation; Singapore; Chinese Taipei; Thailand; United States of America; Viet Nam.

Q.4) Consider the following statements:

1. United Kingdom was among the founding members of European Coal and Steel Community.

2. Despite Brexit being enforced, Northern Ireland will continue to be part of the European Union.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Statement 1 is incorrect. In 1950, the concept of a European trade area was first established. The **European Coal and Steel Community had six founding members: Belgium, France, Germany, Italy, Luxembourg, and the Netherlands.**

In 1957, the Treaty of Rome established a common market. It eliminated customs duties in 1968. It put in place standard policies, particularly in trade and agriculture.

In 1973, the ECSC added Denmark, Ireland, and the United Kingdom.

Statement 2 is incorrect. The UK voted to leave the European Union on June 23rd, 2016 by a majority of 51.9 to 48.1 per cent. **Northern Ireland is part of the United Kingdom,** therefore UK's departure from the EU means Northern Ireland is leaving the bloc too.

Q.5) The **General Data Protection Regulation (GDPR)** belongs to which of the following region?

- a) European Union
- b) Shanghai Cooperation Organisation
- c) Mercosur
- d) NAFTA

10 PM Compilation for the Month of December, 2020

Correct answer: A

Explanation: The **General Data Protection Regulation (GDPR)** is a privacy and security law of the European Union. Though it was drafted and passed by the **European Union (EU)**, it imposes obligations onto organizations anywhere, so long as they target or collect data related to people in the EU.

Some of the key privacy and data protection requirements of the GDPR include:

- Requiring the consent of subjects for data processing
- Anonymizing collected data to protect privacy
- Providing data breach notifications
- Safely handling the transfer of data across borders

Q.6) The '**CANZUK**' acronym includes which of the following country(s)?

1. United States of America
2. United Kingdom
3. Canada

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Correct answer: B

Explanation: **CANZUK** is an acronym for the theoretical cultural, political, and economic community comprising **Canada, Australia, New Zealand and the United Kingdom** as part of an international body similar in scope to the former European Economic Community.

The idea of a trade bloc between Britain, Canada, Australia and New Zealand gained traction after the 2016 Brexit vote.

Q.7) Consider the following statements regarding the United Nations Declaration on the Rights of Indigenous Peoples:

1. The Declaration addresses both individual and collective rights of Indigenous people.
2. India voted against the declaration at United Nations.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: A

Explanation: Statement 1 is correct. The **United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)** is a comprehensive statement addressing the human rights of indigenous peoples. It was drafted and formally debated for over twenty years prior to being adopted by the General Assembly on 13 September 2007.

The document emphasizes the rights of indigenous peoples to live in dignity, to maintain and strengthen their own institutions, cultures and traditions and to pursue their self-determined development, in keeping with their own needs and aspirations.

The Declaration addresses both **individual and collective rights**, cultural rights and identity, rights to education, health, employment, language, and others.

Statement 2 is incorrect. India voted in favour of the United Nations Declaration on the Rights of Indigenous Peoples 2007.

10 PM Compilation for the Month of December, 2020

Q.8) Consider the following statements regarding the **Gavi, the Vaccine Alliance**:

1. It is a vaccination specialized body of the United Nations.
2. India is currently the chair of the GAVI Alliance Board.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Statement 1 is incorrect. **Gavi, the Vaccine Alliance** is a public-private global health partnership with the goal of increasing access to immunization. It is not a United Nations body.

Gavi's impact draws on the strengths of its core partners, the World Health Organization, UNICEF, the World Bank and the Bill & Melinda Gates Foundation, and plays a critical role in strengthening primary health care (PHC), bringing us closer to the Sustainable Development Goal (SDG) of Universal Health Coverage (UHC).

Statement 2 is incorrect. On the Gavi board, UNICEF, WHO, the World Bank and the Bill & Melinda Gates Foundation hold permanent seats; representatives of other Gavi partners serve on time-limited basis.

Dr. Harsh Vardhan, Union Minister of Health and Family Welfare has been nominated by the Global Alliance for Vaccines and Immunisation (GAVI) as a member on the GAVI Board. The Gavi Board is currently chaired by Ngozi Okonjo-Iweala, a Nigerian-born economist.

Q.9) Which of the following country(s) is/are member of the **Arctic Council**?

1. Japan
2. Finland
3. Sweden

Select the correct answer using the code given below:

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 3 only

Correct answer: B

Explanation: The Arctic Council consists of the **eight Arctic States**: Canada; Denmark; Finland; Iceland; Norway; Russia; Sweden; United States.

The Arctic states have territories within the Arctic and thus carry the role as stewards of the region. Their national jurisdictions and international law govern the lands surrounding the Arctic Ocean and its waters.

10 PM Compilation for the Month of December, 2020



International law identifies four global commons, namely the High Seas, the Atmosphere, the Antarctica and the Outer Space. Arctic is mostly governed by Arctic Council states.

Q.10) Consider the following statements regarding the **UN Security Council (UNSC) membership**:

1. Every member country of the United Nation has at least once been a member of UNSC.
2. In 2020, India has been elected to the UNSC membership for the first time in 21st century.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct answer: D

Explanation: Statement 1 is incorrect. More than 50 United Nations Member States have **never** been Members of the Security Council.

A State which is a Member of the United Nations but not of the Security Council may participate, without a vote, in its discussions when the Council considers that country's interests are affected.

Statement 2 is incorrect. India has entered the UN Security Council as a non-permanent member for the eighth time in 2021-22.

India was also elected for the **2011-12 of UNSC membership**.