

## *10 PM Current Affairs Quiz Compilation*

January, 2021 - (Fifth week)

## 10 PM Compilation for the Week – 25<sup>th</sup> to 31<sup>th</sup> January, 2021

### SCIENCE & TECHNOLOGY

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**Q.1)** Which of the following is/are feature(s) of the **blockchain technology**?

1. All network participants have access to the distributed ledger and its record of transactions.
2. No participant can change or tamper with a transaction after it's been recorded to the shared ledger.

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.

**Blockchain** is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. An asset can be tangible (a house, car, cash, land) or intangible (intellectual property, patents, copyrights, branding). Virtually anything of value can be tracked and traded on a blockchain network, reducing risk and cutting costs for all involved.

-- All network participants have access to the distributed ledger and its immutable record of transactions.

-- No participant can change or tamper with a transaction after it's been recorded to the shared ledger. If a transaction record includes an error, a new transaction must be added to reverse the error, and both transactions are then visible.

# *The Election Commission of India is collaborating with the Indian Institute of Technology to develop a blockchain system for voting.*

**Q.2)** What is '**Ooceraea joshii**' that has been in news recently?

- a) New ant species discovered in India
- b) A crater on Mars
- c) An invasive species of fungus
- d) An asteroid set to pass through solar system in 2029

**Correct answer: A**

**Explanation:** Two new species of a rare ant genus have been discovered in India. The species of the ant genus **Ooceraea found in Kerala, and Tamil Nadu** add to the diversity of this rare genus. They differ from others of the same genus on the basis of the number of antennal segments.

One of them found in the Periyar Tiger Reserve of Kerala, has been named *Ooceraea joshii*, in honour of Prof. Amitabh Joshi, a distinguished evolutionary biologist.

**Q.3)** Which of the following statements is/are correct regarding transactions on a **blockchain**?

1. The transactions are duplicated and distributed across the entire network of computer systems on the blockchain.
2. If a transaction record includes an error, a new transaction must be added to reverse the error, and both transactions are then visible.

Select the correct answer using the code given below:

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

**Correct answer: C**

**Explanation:** Both statements are correct. **Blockchain** is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system.

A blockchain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the blockchain. Each block in the chain contains a number of transactions, and every time a new transaction occurs on the blockchain, a record of that transaction is added to every participant's ledger.

No participant can change or tamper with a transaction after it's been recorded to the shared ledger. If a transaction record includes an error, a new transaction must be added to reverse the error, and both transactions are then visible.

The **blockchains** are programmable. To speed transactions, a set of rules — called a **smart contract** — is stored on the blockchain and executed automatically.

**Q.4)** Which of the following constitute a **Silent Mutation**?

- a) Change in the amino acid without change in the nucleotide bases
- b) Change in the sequence of nucleotide bases without a subsequent change in the protein
- c) Change in sequence nucleotide bases and subsequent amino acid
- d) None of the above

**Correct answer: B**

**Explanation: DNA is made up of molecules called nucleotides.** Each nucleotide contains a phosphate group, a sugar group and a nitrogen base. The four types of nitrogen bases are adenine (A), thymine (T), guanine (G) and cytosine (C). The order of these bases is what determines DNA's instructions, or genetic code.

A mutation is an alteration in the nucleotide sequence of the genome of an organism. A **silent mutation** is a change in the sequence of nucleotide bases which constitutes DNA, without a subsequent change in the amino acid or the function of the overall protein.

**Q.5)** Consider the following statements regarding the **Side-Scan Sonar**:

1. It is used to conduct surveys for maritime archeology.
2. The higher frequencies yield better range but less resolution in side scan sonar.

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. A **side scan sonar** uses high-frequency sound pulses that are bounced off the sea floor to create an image of the sea floor morphology shape) and show differences in seabed texture and substrate types.

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Side scan may be used to conduct surveys for maritime archeology; in conjunction with seafloor samples, it is able to provide an understanding of the differences in material and texture type of the seabed surface.

Statement 2 is incorrect. Typical frequencies used in side scan sonar range from 100 to 500 kHz with higher frequencies producing a higher resolution image. The **higher frequencies yield better resolution but less range.**

# *Indian scientists will undertake a scientific expedition using side scan Sonar and Silo seismic survey to date the chain of corals and sediments forming the Ram Setu.*

**Q.6)** Consider the following statements:

1. Australia is the world's top producer of lithium.
  2. Lithium-ion batteries are not subject to ageing.
- 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. **Li-ion batteries** are subject to ageing even if not in use. During their lifetime Li-ion batteries exhibit a gradual decrease in discharge capacity which is manifested as a loss of autonomy for the powered device. This is observed both during use and on storage.

Statement 2 is incorrect. In 2019, the world's Top 5 lithium producers were: Australia - 52.9% of global production, Chile - 21.5%, China - 9.7%, Argentina - 8.3% and Zimbabwe - 2.1%.

**Q.7)** Which of the following is/are **Neglected Tropical Diseases (NTD)**?

1. Hepatitis C
2. Rabies
3. Trachoma

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: Neglected tropical diseases (NTDs)** include several parasitic, viral, and bacterial diseases that cause substantial illness for more than one billion people globally.

The 20 NTDs listed by World Health Organisation are: Buruli ulcer, Chagas disease, Dengue and severe dengue, Dracunculiasis, Echinococcosis, Foodborne trematode infections, Human African trypanosomiasis, Leishmaniasis, Leprosy, Lymphatic filariasis, Mycetoma, chromoblastomycosis and other deep mycoses, Onchocerciasis, Rabies, Scabies and other ectoparasitoses, Schistosomiasis, Soil-transmitted helminthiases, Snakebite envenoming, Taeniasis and cysticercosis, Trachoma and Yaws.

# *January 30, 2021 will mark the second annual World Neglected Tropical Diseases (NTD) Day. India joins the world to Combat Neglected Tropical Diseases. On this day the Qutub Minar will be lit up along with other landmarks across the world.*

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**Q.8)** Consider the following statements regarding the **Chandrasekhar Limit**:

1. It is the maximum mass a white dwarf star can have and still remain a white dwarf.
2. It is named after a Bharat Ratna and Nobel laureate scientist Subrahmanyan Chandrasekhar.

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 **Chandrasekhar Limit of 1.4 solar masses**, is the theoretical maximum mass a white dwarf star can have and still remain a white dwarf. Above this mass, electron degeneracy pressure is not enough to prevent gravity from collapsing the star further into a neutron star or black hole.

Statement 2 is incorrect. The limit is named after the **Nobel laureate Subrahmanyan Chandrasekhar**, who first proposed the idea in 1931.

He was not a recipient of Bharat Ratna but was honored with **Padma Vibhushan in 1968**.

**Q.9)** Consider the following statements:

1. Nuclear medicine has application in the field of diagnosis through imaging of organs.
2. Ionized radiation is used in treatment of cancer 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: C**

**Explanation:** Statement 1 is correct. **Nuclear medicine** uses radiation to provide diagnostic information about the functioning of a person's specific organs, or to treat them.

In using **radiopharmaceuticals for diagnosis**, a radioactive dose is given to the patient and the activity in the organ can then be studied either as a two-dimensional picture or, using tomography, as a three-dimensional picture. Diagnostic techniques in nuclear medicine use radioactive tracers which emit gamma rays from within the body.

Statement 2 is correct. Therapeutic applications of radioisotopes typically are intended to destroy the targeted cells. In **radiation therapy for cancer**, the patient's tumor is bombarded with ionizing radiation, typically in the form of beams of subatomic particles, such as protons, neutrons, or alpha or beta particles, which directly disrupt the atomic or molecular structure of the targeted tissue. Ionizing radiation introduces breaks in the double-stranded DNA molecule, causing the cancer cells to die and thereby preventing their replication.

*# Bhabha Atomic Research Centre (BARC) has evolved a design for the first PPP Research Reactor for production of Nuclear Medicines. This premier research organization of the Department of Atomic Energy (DAE) is ready to share the technology of production of a variety of nuclear medicines.*

**Q.10)** What does the '**Bouguer anomaly**' relate to?

- a) Speed of light

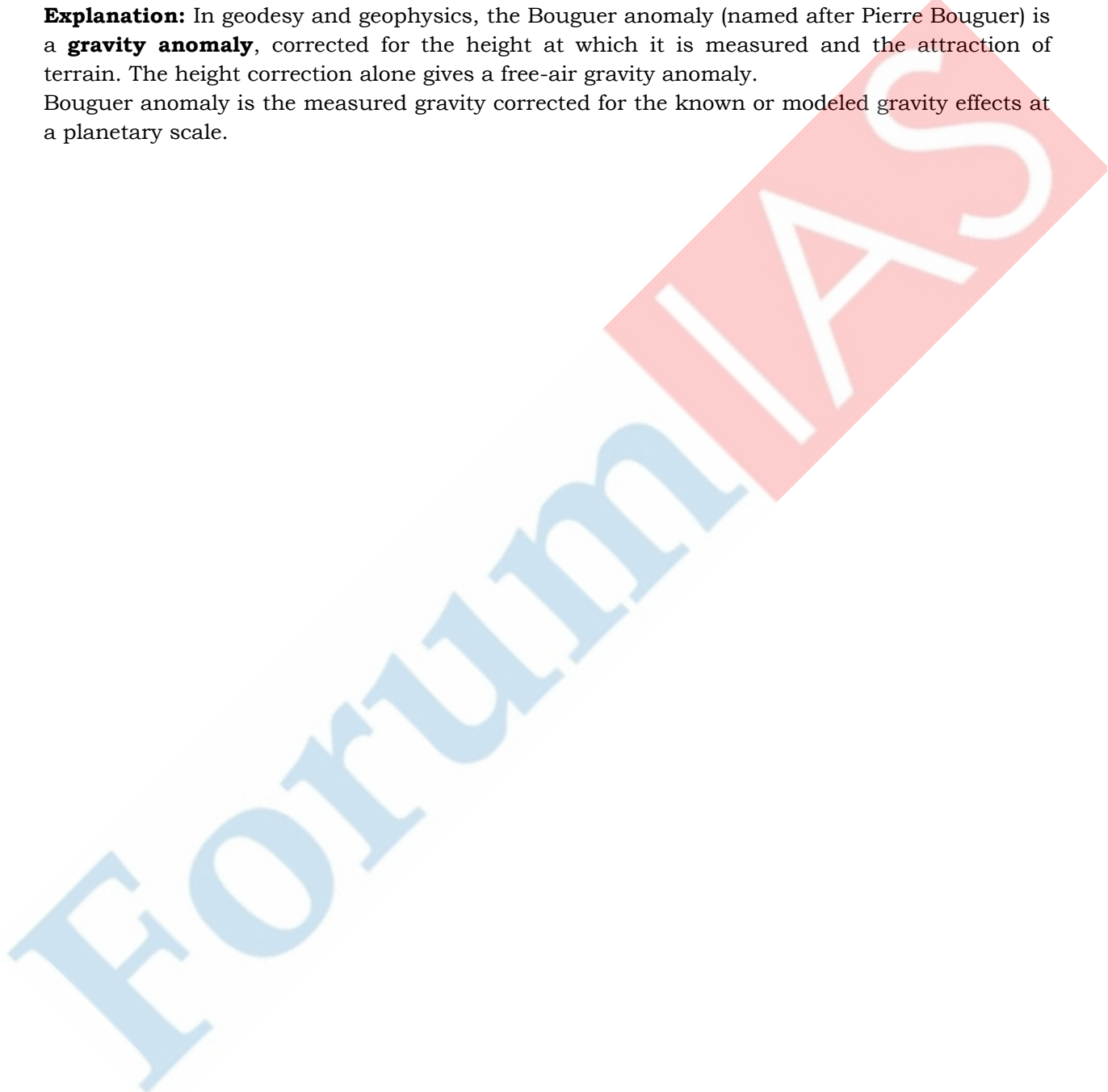
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- b) Gravitational anomaly
- c) Economic stimulus
- d) Social security

**Correct answer: B**

**Explanation:** In geodesy and geophysics, the Bouguer anomaly (named after Pierre Bouguer) is a **gravity anomaly**, corrected for the height at which it is measured and the attraction of terrain. The height correction alone gives a free-air gravity anomaly.

Bouguer anomaly is the measured gravity corrected for the known or modeled gravity effects at a planetary scale.



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### INTERNATIONAL RELATIONS/ORGANISATIONS

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**Q.1)** Consider the following statements regarding the recently launched global initiative “**The Great Reset**”:

1. It has been launched by the World Bank.
2. It aims at global stakeholder’s cooperation in managing the direct social and economic consequences of the COVID-19 crisis

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 third and final priority of a Great Reset agenda is to harness the innovations of the Fourth Industrial Revolution to support the public good, especially by addressing health and social challenges.

There is an urgent need for global stakeholders to cooperate in simultaneously managing the direct consequences of the COVID-19 crisis. To improve the state of the world, the **World Economic Forum is starting The Great Reset initiative.**

Statement 2 is correct. The Great Reset agenda would have three main components:

-- The first would steer the market toward fairer outcomes. To this end, governments should improve coordination (for example, in tax, regulatory, and fiscal policy), upgrade trade arrangements, and create the conditions for a “stakeholder economy.”

-- The second component would ensure that investments advance shared goals, such as equality and sustainability. Here, the large-scale spending programs that many governments are implementing represent a major opportunity for progress. Example: European Commission has unveiled plans for a €750 billion (\$826 billion) recovery fund.

-- The third and final priority of a Great Reset agenda is to harness the innovations of the Fourth Industrial Revolution to support the public good, especially by addressing health and social challenges.

**Q.2)** Consider the following statements:

1. ‘Futures of Education’ is an initiative of UNESCO that aims to rethink education and shape the future.
2. The theme of the International Education Day 2021 is ‘Recover and Revitalize Education for the COVID-19 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: C**

**Explanation:** Statement 1 is correct. **UNESCO’s Futures of Education** initiative aims to rethink education and shape the future. The work will be guided by a high-level International Commission of thought-leaders from diverse fields and different regions of the world.

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In November 2021 the commission will publish a report designed to share a forward-looking vision of what education and learning might yet become and offer a policy agenda.

Statement 2 is correct. The **United Nations General Assembly proclaimed 24 January as International Day of Education**, in celebration of the role of education for peace and development.

The third International Day of Education (January 24 2021) is being celebrated under the theme 'Recover and Revitalize Education for the COVID-19 Generation'.

**Q.3)** Consider the following statements regarding the **United Nations Security Council (UNSC)**:

1. Under the Charter of the United Nations, all Member States are obligated to comply with Council decisions.
2. The presidency of the Council is held by the permanent members only in turn, for one month each.

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 **Security Council** has primary responsibility for the maintenance of international peace and security. It has 15 Members, and each Member has one vote. Under the Charter of the United Nations, all Member States are obligated to comply with Council decisions.

Statement 2 is incorrect. The presidency of the Council is held by each of the **members (permanent and non-permanent)** in turn for one month, following the English alphabetical order of the Member States names. *Tunisia is the president for January 2021.*

All existing committees and working groups are comprised of the fifteen members of the Council. While standing committees are chaired by the President of the Council, rotating on a monthly basis, other committees and working groups are chaired or co-chaired by designated members of the Council who are announced on an annual basis by a Note of the President of the Security Council.

**Q.4)** Which of the following organisation holds the annual **Davos Dialogues/Summit**?

- a) United Nations Conference on Trade and Development
- b) International Monetary Fund
- c) World Bank
- d) World Economic Forum

**Correct answer: D**

**Explanation:** Davos summit organised by the **World Economic Forum (WEF)** is an annual event held at Davos in Switzerland, which sees the participation of world leaders, politicians, economists and business leaders.

Prime Minister Narendra Modi and Chinese President Xi Jinping will be among the top world leaders to attend the World Economic Forum (WEF)'s Davos Agenda Summit. The six-day event will be held online from January 24 to 29.

**The 'Davos Agenda' 2021 will also mark the launch of WEF's "Great Reset Initiative".**

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**Q.5)** Consider the following statements regarding the **International Energy Agency (IEA)**:

1. Its mandate is to help its members respond to major oil supply disruptions.
2. A candidate country to the IEA must be a member country of the Organization for Economic Co-Operation and Development (OECD).

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 IEA was established in 1974, in the wake of the 1973-1974 oil crisis, **to help its members respond to major oil supply disruptions**, a role it continues to fulfill today. IEA's mandate has expanded over time to include tracking and analyzing global key energy trends, promoting sound energy policy, and fostering multinational energy technology cooperation.

Statement 2 is correct. The IEA operates within the broader framework of the **Organization for Economic Co-Operation and Development (OECD)**. A candidate country to the IEA must be a member country of the OECD.

The IEA is made up of 30 member countries. In addition, thanks to its successful open door policy to emerging countries, the IEA family also includes eight association countries (including India).

# *The Framework for Strategic Partnership between the International Energy Agency (IEA) members and the Government of India was signed on 27th January, 2021 to strengthen mutual trust and cooperation & enhance global energy security, stability and sustainability.*

**Q.6)** Consider the following statements regarding the **Future Investment Initiative (FII)**:

1. It has been launched by the United Nations Conference on Trade and Development.
2. It is held annually in Riyadh, Saudi Arabia.

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 **Future Investment Initiative** is hosted by the Public Investment Fund of Saudi Arabia.

Statement 2 is correct. It is an annual investment forum held in **Riyadh, Saudi Arabia**, to discuss trends in the world economy and investment environment.

Union Minister for Health and Family Welfare recently addressed the 4th edition of the Future Investment Initiative Forum. The purpose of the forum being hosted in Riyadh was to find solutions on how business and government can expand access to healthcare, train healthcare workers, remove regulatory barriers and encourage investment in advanced health technologies.

**Q.7)** The **Common Trust Network** is an initiative of which of the following organisation?

- a) International Air Transport Association

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- b) World Economic Forum
- c) World Shipping Council
- d) Organisation for Economic Co-operation and Development

**Correct answer: B**

**Explanation:** The **World Economic Forum** in collaboration with **Commons Project Foundation** have launched the Common Trust Network in collaboration with a broad voluntary network of public and private stakeholders.

The Common Trust Network is designed to (1) empower individuals with digital access to their health information, (2) make it easier for individuals to understand and comply with each destination's requirements, and (3) help ensure that only verifiable lab results and vaccination records from trusted sources are presented for the purposes of cross-border travel and commerce.

# Union Minister of Health & Family Welfare addressed the event on Restoring Cross Border Mobility by World Economic Forum's Common Trust Network recently.

**Q.8)** Consider the following statements regarding **India-France relations**:

1. India has a civil nuclear agreement with France.
2. Year 2021-22 has been declared as the Indo-French Year of the Environment.

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. An agreement on **civil nuclear cooperation** was signed between India and France on 30 September 2008 during the visit of then PM to France.

Statement 2 is correct. Minister for Environment, Forest and Climate Change, Shri Prakash Javadekar and Ms Barbara Pompili, the French Minister for Ecological Transition launched the **Indo-French Year of the Environment** in New Delhi recently.

The basic objective is to strengthen Indo-French cooperation in sustainable development, increase the effectiveness of actions in favor of global environment protection and give them greater visibility.

The Indo-French Year of the Environment over the period 2021-2022 would be based on five main themes: environmental protection, climate change, biodiversity conservation, sustainable urban development, and the development of renewable energies and energy efficiency.

**Q.9)** Which of the following organisation releases the '**Fiscal Monitor**'?

- a) World Economic Forum
- b) World Bank
- c) UN Conference on Trade & Development
- d) International Monetary Fund

**Correct answer: D**

**Explanation:** The **Fiscal Monitor** was launched in 2009 by IMF to survey and analyze the latest public finance developments, update fiscal implications of the crisis and medium-term fiscal projections, and assess policies to put public finances on a sustainable footing.

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The Fiscal Monitor is prepared twice a year by the IMF's Fiscal Affairs Department. Its projections are based on the same database used for the World Economic Outlook (WEO) and the Global Financial Stability Report (GFSR).

### **Fiscal Monitor Update, January 2021:**

--Global fiscal support of \$14 trillion has contributed to saving lives and livelihoods and has mitigated the effects of the pandemic on consumption and output.

--Global public debt is estimated to reach 98 percent of GDP at the end of 2020, compared with 84 percent for the same date based on projections in the October 2019 Fiscal Monitor.

--Fiscal responses have been shaped by access to financing: average overall deficits as a share of GDP in 2020 are projected at -13.3 percent for advanced economies, -10.3 percent for emerging market and middle-income economies, and -5.7 percent for low-income developing countries.

**Q.10)** Which of the following country hosted the **Climate Adaptation Summit (CAS) 2021**?

- a) Japan
- b) Netherlands
- c) South Korea
- d) Canada

**Correct answer: B**

**Explanation:** The online international **Climate Adaptation Summit (CAS) 2021 on 25 and 26 January, hosted by the Netherlands**, convenes global leaders and local stakeholders. It saw the launch of a comprehensive Adaptation Action Agenda that sets out clear commitments to deliver concrete new endeavours and partnerships to make our world more resilient to the effects of climate change.

CAS Online built on the advances of the UN Climate Action Summit by showcasing pioneering solutions to the climate emergency and sustaining momentum through to UNFCCC's COP26 in Glasgow in 2021.

**Q.11)** Consider the following statements regarding the **World Customs Organisation (WCO)**:

1. It is an intergovernmental body functioning under the World Trade Organisation.
2. India is a member of the WCO.

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 **World Customs Organization (WCO)**, established in 1952 as the Customs Co-operation Council (CCC) is an independent intergovernmental body whose mission is to enhance the effectiveness and efficiency of Customs administrations.

Statement 2 is correct. WCO 183 Members, three-quarters of which are developing countries, are responsible for managing more than 98% of world trade. **India is a member of the WCO since 1971.**

# *The Central Board of Indirect Taxes and Customs (CBIC) observed the International Customs Day, 2021 on 27<sup>th</sup> January. The theme for this year as given by World Customs Organisation (WCO) is "Customs bolstering Recovery, Renewal and Resilience for a sustainable supply chain".*

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**Q.12)** Which of the following institution has published the report “**The Inequality Virus**”?

- a) Oxfam International
- b) World Health Organisation
- c) World Bank
- d) UN Human Rights Council

**Correct answer: A**

**Explanation:** The **Inequality Virus** report has recently been released by the **Oxfam International** at the Davos Dialogues of World Economic Forum.

The report states that Covid has the potential to increase economic inequality in almost every country at once — the first time this has happened since records began over a century ago.

The report has found that as the pandemic stalled the economy, forcing millions of poor Indians out of jobs, the richest billionaires in India increased their wealth by 35 per cent.

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### GEOGRAPHY

**Q.1)** Where is **Palk Bay** located?

1. North of Palk Strait
2. South of Adam's bride (RamSetu)

Select the correct answer using the code given below:

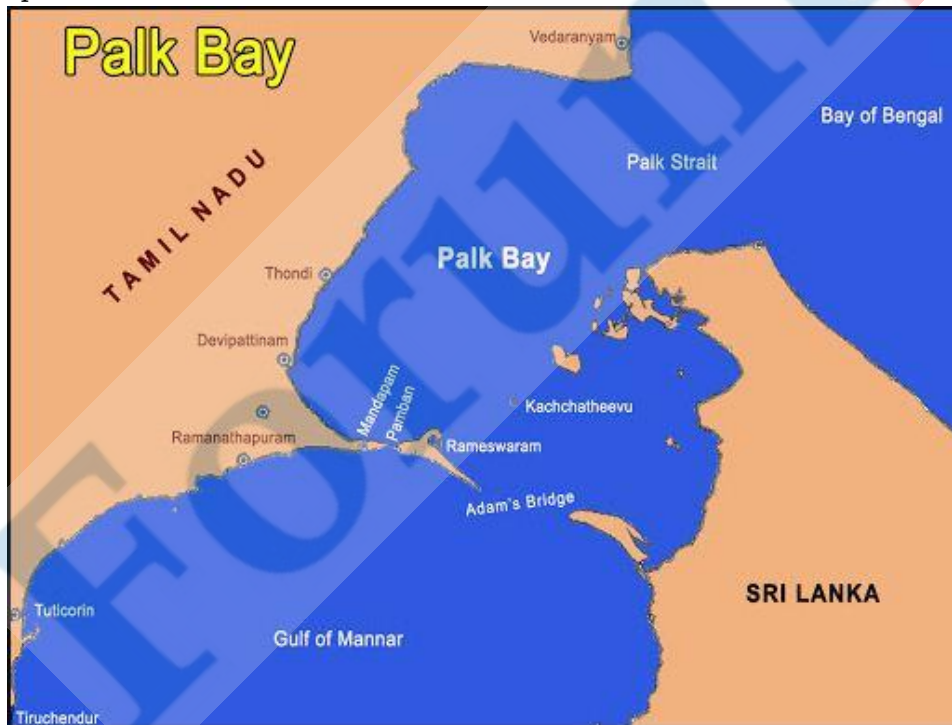
- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**Correct answer: D**

**Explanation:** Both options are incorrect. Palk Bay is north of RamSetu and south of Palk Strait.

The **Palk Bay** is a 15,000 sq km biodiversity conglomeration nestled between the island nation of Sri Lanka and South East Peninsula India with a coastal length of 250 km on the Indian side.

The bay is landlocked with three openings--one big eastern opening into the Bay of Bengal and two narrow openings into the Gulf of Mannar. The bay is a highly productive ecosystem. it has 302 species of marine algae, 580 species of fishes, five marine turtle species and 11 seagrass species and several species of mangroves. The bay is also among one of the biggest fishing spots in south India.



**Q.2)** Which of the following us the current Epoch of geological time as per the **International Union of Geological Sciences (IUGS)**?

- Holocene
- Anthropocene

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- c) Oligocene  
d) Miocene

**Correct answer: A**

**Explanation:** The **International Union of Geological Sciences (IUGS)**, the international organization that names and defines epochs, recognises Holocene as the current Epoch.

Therefore, officially, the current epoch is called the **Holocene**, which began 11,700 years ago after the last major ice age. However, the **Anthropocene** Epoch is an unofficial unit of geologic time, used to describe the most recent period in Earth's history when human activity started to have a significant impact on the planet's climate and ecosystems.

Younger	Eon	Era	Period	Epoch		
Older	Phanerozoic	Cenozoic	Quaternary	Holocene	← Today	
				Pleistocene	← 11.8 Ka	
			Neogene	Pliocene		
				Miocene		
			Paleogene	Oligocene		
				Eocene		
		Paleocene	← 66 Ma			
		Mesozoic	Cretaceous	~		
			Jurassic	~		
			Triassic	~		
		Paleozoic	Permian	~		
			Carboniferous	Pennsylvanian	~	
				Mississippian	~	
			Devonian	~		
			Silurian	~		
			Ordovician	~		
		Cambrian	~			
		Proterozoic	~	~	~	← 541 Ma
		Archean	~	~	~	← 2.5 Ga
Hadean	~	~	~	← 4.0 Ga		
				← 4.54 Ga		

**Q.3)** Which of the following is/are potential consequence of **melting ice sheets**?

1. Increase in global temperature
2. Increase in greenhouse gases in environment

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:** An **ice sheet** is a mass of glacial land ice extending more than 50,000 square kilometers (20,000 square miles). The two ice sheets on Earth today cover most of **Greenland and Antarctica**.

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Ice sheets contain enormous quantities of frozen water. If the Greenland Ice Sheet melted, scientists estimate that sea level would rise about 6 meters (20 feet). If the Antarctic Ice Sheet melted, sea level would rise by about 60 meters (200 feet).

-- Since ice sheets are covered in white snow and ice that **reflect heat back into space**, they balance out other parts of the world that absorb heat. Less ice means less reflected heat, meaning more intense heatwaves worldwide. But it also means more extreme winters: as the polar jet stream—a high-pressure wind that circles the Arctic region—is destabilized by warmer air, it can dip south, bringing bitter cold with it.

-- Arctic ice and permafrost—ground that is permanently frozen—**store large amounts of methane**, a greenhouse gas that contributes to climate change. When it thaws, that methane is released, increasing the rate of warming.

# A recent research by UK scientists have found that the rate of ice loss from the Earth has increased drastically within the past three decades, from 0.8 trillion tonnes per year in the 1990s to 1.3 trillion tonnes per year by 2017.

**Q.4)** Consider the following statements regarding the **Musk Deer**:

1. It is distributed throughout the Western Ghats in India.
2. It is the State animal of Uttarakhand.
3. It is protected under the Schedule I of the Wildlife Protection Act 1972.

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 **Musk Deer** inhabits alpine forests and scrub. The Deer is typically found at elevations between 2,200 and 4,300 metres (7,250 to 14,200 feet), and is rarely found below 1,000 metres (3,280 feet).

The Indian states in which Alpine and/or Himalayan Musk deer are found include Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh, Sikkim, and Arunachal Pradesh.

Statement 2 is correct. Musk Deer is the State animal of Uttarakhand state. *It was showcased in front of its tableau at the Republic Day parade.*

Statement 3 is correct. Musk Deer is listed under the **Schedule I of the Wildlife Protection Act 1972**.

Musk or Kasturi is a commonly traded wildlife product. Derived from the musk pod of the highly endangered musk deer, a high altitude Himalayan species persecuted in most of its distribution area, it is considered to be a natural perfume fixative and used in the Aryurveda, Tibetan and Unani systems of medicine.

**Q.5)** Consider the following statements:

1. India is the largest exporter of spices.
2. Chili accounts for more than half of India's export of spices in 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

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**Correct answer: A**

**Explanation: Statement 1** is correct. India has the largest domestic market for spices in the world. Traditionally, spices in India have been grown in small land holdings, with organic farming gaining prominence in recent times.

India is the world's **largest producer, consumer and exporter of spices**; the country produces about 75 of the 109 varieties listed by the International Organization for Standardization (ISO) and accounts for half of the global trading in spices.

Statement 2 is incorrect. India is the world's largest exporter of chili and turmeric, the exports of which have recorded a steady progress, over the years.

During 2019-20, **chili export contributed to more than 40 per cent in volume and 29 per cent in value of India's total spice exports**. Turmeric held a share of 11 per cent in volume and 6 per cent in value of the export basket.

# Spices Board conducted the Virtual Buyer Seller Meet (BSM) for Chili and Turmeric, with focus on Andhra Pradesh, which saw participation from 245 stakeholders. This was the 14th BSM conducted by the Board in FY 2020-21.



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### HISTORY/ART/CULTURE

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**Q.1)** The **Risa traditional attire** that has been in news recently belongs to which region?

- a) North east India
- b) Afghanistan
- c) Brazil
- d) Japan

**Correct answer: A**

**Explanation:** Government of **Tripura** have been promoting the traditional handwoven attire to support the indigenous industry. The **traditional Tripuri female attire comprises three parts — risa, rignai and rikutu.**

Risa is a handwoven cloth used as a female upper garment, and also as headgear, a stole, or a present to express respect. The risa is used in religious festivals such as Garia Puja by tribal communities.

# *The complete Tripuri attire is claimed to have originated even before the time of the Manikya kings, who ruled Tripura for over 500 years starting from the 15th century.*

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### GOVERNMENT SCHEMES/INITIATIVES

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

1. SVEEP is a flagship program of the Election Commission of India for spreading voter awareness and promoting voter literacy in India.
2. The National Voters' Day is been celebrated on January 25 every year marking first ever general election of 1952.

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. **Systematic Voters' Education and Electoral Participation program**, better known as SVEEP, is the flagship program of the Election Commission of India for voter education, spreading voter awareness and promoting voter literacy in India.

Statement 2 is incorrect. The **National Voters' Day** has been celebrated on **January 25** every year since 2011, all across the country to mark the foundation day of Election Commission of India, i.e. 25th January 1950.

The theme for this year's NVD, 'Making Our Voters Empowered, Vigilant, Safe and Informed'.

# *General elections to the first Lok Sabha since independence were held in India between 25 October 1951 and 21 February 1952.*

**Q.2)** Consider the following statements:

1. The Census (2011) data showed a significant declining trend in the Child Sex Ratio reaching all time low below 900.
2. The objective of the Beti Bachao, Beti Padhao (BBBP) Scheme is to celebrate the girl child & enable her education.
3. Sex Ratio at Birth (SRB) and Gross Enrolment Ratio of girls in the schools at secondary level has increased in last five years.

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 **Census (2011)** data showed a significant declining trend in the Child Sex Ratio (CSR), calculated as number of girls for every 1000 boys between age group of 0-6 years, with an all-time low of **918 in 2011 from 976 in 1961**.

Statement 2 is correct. The Overall Goal of the **Beti Bachao, Beti Padhao (BBBP)** Scheme is to Celebrate the Girl Child & Enable her Education. The objectives of the Scheme are:

- Prevent gender biased sex selective elimination
- Ensure survival & protection of the girl child

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--Ensure education of the girl child

Statement 3 is correct. During the last 6 years the Sex Ratio at Birth (SRB) has improved by 16 points from 918 in 2014-15 to 934 in 2019-20. Gross Enrolment Ratio of girls in the schools at secondary level has improved from 77.45 to 81.32.

**Q.3)** Which of the following is/are component(s) of the **SagarMala project**?

1. Port Modernization & New Port Development
2. Port-linked Industrialization
3. Coastal Community Development
4. Coastal Shipping & Inland Waterways Transport

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1 and 4 only
- d) All of the above

**Correct answer: D**

**Explanation:** Vision of the **Sagarmala Programme** is to reduce logistics cost for EXIM and domestic trade with minimal infrastructure investment. 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 (inland water transport and coastal shipping).

--**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.

**Q.4)** Which of the following is/are potential impacts of the proposed imposition of '**green tax**' on old vehicles?

1. Increase fuel efficiency
2. Reduce environmental pollution
3. Improving safety standards

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: A**

**Explanation:** **Road Transport and Highways Ministry** has approved the proposal to levy the tax on older vehicles.

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The policy will only apply for petrol and diesel vehicles in a bid to protect the environment and curb pollution. Whereas other vehicles like strong hybrids, electric vehicles and those running on alternate fuels like CNG, ethanol and LPG will be exempted.

The move in addition to **reducing air pollution will help raise fuel efficiency, and improving safety standards** by dissuading resale of old vehicles.

According to MoRTH, the older fleet, typically manufactured before the year 2000, constitute less than 1 percent of the total fleet but contributes around 15 percent of total vehicular pollution. These older vehicles pollute 10-25 times more than modern vehicles.

**Q.5)** Consider the following statements regarding the **National Non-communicable Disease Monitoring Survey (NNMS)**:

1. It has been conducted by the National Sample Survey Office.
  2. It has observed that more than one fourth of the adults in India are overweight or obese.
- 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 **National Non-communicable Disease Monitoring Survey (NNMS)** conducted by the Indian Council of Medical Research (ICMR) - National Centre for Disease Informatics & Research (NCDIR), Bengaluru, Government of India with the support of Ministry of Health and Family Welfare, Govt. of India assesses the national NCD targets and indicators.

Statement 2 is correct. The findings stated that **more than one in every four adults and 6.2% adolescents were overweight or obese**; almost three out of ten adults had raised blood pressure and 9.3% had raised blood glucose.

Recently released survey, conducted during the period of 2017–18, showed that more than two in five adults and one in four adolescents were doing insufficient physical activity and their average daily intake of salt was 8 gms. The survey also showed that one in every three adults and more than one-fourth proportion of men used any form of tobacco and consumed alcohol in past 12 months respectively.

**Q.6)** Consider the following statements regarding the **gallantry awards of India**:

1. The gallantry awards are announced twice in a year, on the occasion of the Republic Day and the Independence Day.
2. Civilian citizens are not eligible for the Param Vir Chakra awards.

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:** Post-independence, first three gallantry awards namely **Param Vir Chakra, Maha Vir Chakra and Vir Chakra were instituted by the Government of India in 1950**. Thereafter, other three gallantry awards i.e. Ashoka Chakra Class-I, Ashoka Chakra Class-II

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and Ashoka Chakra Class-III were instituted in 1952, these awards were renamed as Ashoka Chakra, Kirti Chakra and Shaurya Chakra respectively in January, 1967.

Statement 1 is correct. These gallantry awards are announced twice in a year - first on the occasion of the Republic Day and then on the occasion of the Independence Day.

Statement 2 is correct. The following categories of persons shall be eligible for the Param Vir Chakra, the Maha Vir Chakra and the Vir Chakra:

--Officers and men and women of all ranks of the Naval, Military and Air Forces, of any of the Reserve Forces, of the Territorial Army, Militia and of any other lawfully constituted Armed Forces.

--Matrons, Sisters, Nurses and the Staff of the Nursing Services and other Services pertaining to Hospitals and Nursing, and Civilians of either sex serving regularly or temporarily under the orders, directions or supervision of any of the above-mentioned Forces

**Q.7)** Which of the following is/are the objectives of **Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 3.0**?

1. Provide support to youth for skill training and certification.
2. Promote sustainable Skill Centres for greater participation of private sector

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:** **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE) implemented by National Skill Development Corporation.

Objectives of PMKVY 3.0 (2020-21):

--Create an ecosystem for the youth to make informed choices on the available skilling avenues.

--Provide support to youth for skill training and certification.

--Promote sustainable Skill Centres for greater participation of private sector.

--Benefit 8 lakh youth over the scheme period (2020-21).

**Q.8)** Consider the following statements regarding the **Annual Status of Education Report (ASER)**:

1. It is published by the National Council of Educational Research and Training (NCERT).
2. ASER is a household-based rather than school-based survey.

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 **Annual Status of Education Report (ASER)** is released by NGO Pratham. This is an annual survey that aims to provide reliable estimates of

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children's enrolment and basic learning levels for each district and state in India. ASER has been conducted every year since 2005 in all rural districts of India.

Statement 2 is correct. Unlike most other large-scale learning assessments, **ASER is a household-based rather than school-based survey**. This design enables all children to be included – those who have never been to school or have dropped out, as well as those who are in government schools, private schools, religious schools or anywhere else.

*#COVID-19 pandemic spurred the growth of online education in India. Remote learning opens up another channel that widens the learning disadvantage of relatively poorer children. ASER 2020 has found that a majority (55 per cent) of children in relatively poorer households not having a smartphone, their access to whatever learning material being distributed in this mode was limited.*

**Q.9)** Consider the following statements regarding the **Textiles Committee**:

1. It is a statutory body.
2. Its sole objective is to ensure the quality of textiles for export purposes.

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 **Textiles Committee** was established in the year 1963 by an Act of Parliament and is a statutory body under the Ministry of Textiles.

Statement 2 is incorrect. The Textiles Committee's main objective is to ensure the **quality of textiles and textile machinery both for internal consumption and export purposes**. The Textiles Committee is the only body providing for all the quality related needs of the entire Textiles Value Chain (TVC) in an integrated format on a pan-India basis through its network.

*# Textiles Committee, Ministry of Textiles have signed a Memorandum of Understanding (MoU) with Nissenken Quality Evaluation Centre, Japan to boost export of Textile and Apparel to Japanese market.*

**Q.10)** Consider the following statements regarding the **India Justice Report 2020**:

1. It has been published by the Department of Justice, Ministry of Law and Justice.
2. Women comprise less than one third of the total Judges in India.
3. Maharashtra is the top ranked state on delivery of justice to people among large and mid-sized states of India.

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 **India Justice Report (IJR)** is an initiative of **Tata Trusts** in collaboration with Centre for Social Justice, Common Cause, Commonwealth Human Rights Initiative, DAKSH, TISS–Prayas, Vidhi Centre for Legal Policy and How India Lives. The maiden IJR was announced in 2019.

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Statement 2 is correct. The Report highlights stark conclusions, when aggregated for an all-India picture. Women comprise only 29% of judges in India. Two-thirds of the country's prisoners are yet to be convicted. In the last 25 years, since 1995, only 1.5 crore people have received legal aid, though 80% of the country's population is entitled to.

Statement 3 is correct. The **second edition of the India Justice Report**, India's only ranking of states on delivery of Justice to people, ranks Maharashtra once again at the top of the 18 Large and Mid-sized states (with population of over one crore each), followed by Tamil Nadu (2019: 3rd), Telangana (2019: 11th) Punjab (2019: 4th) and Kerala (2019: 2nd). The list of seven Small States (population less than one crore each) was topped by Tripura (2019: 7th), followed by Sikkim (2019: 2nd) and Goa (2019: 3rd).

**Q.11)** Consider the following statements regarding the **Foreign Contribution (Regulation) Act (FCRA)**:

1. The editors or publishers of a registered newspaper are prohibited to accept any foreign contribution.
2. The foreign contribution can be received only in an account designated bank account of the EXIM Bank.

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 **Foreign Contribution (Regulation) Act, 2010**, certain persons are prohibited to accept any foreign contribution. These include: election candidates, editor or publisher of a newspaper, judges, government servants, members of any legislature, and political parties, among others.

The **FCRA Amendment Act 2020** adds public servants (as defined under the Indian Penal Code) to this list. Public servant includes any person who is in service or pay of the government or remunerated by the government for the performance of any public duty.

Statement 2 is incorrect. The FCRA Amendment Act, 2020 states that foreign contribution must be received only in an account designated by the bank as "FCRA account" in such branch of the **State Bank of India, New Delhi**, as notified by the central government.

No funds other than the foreign contribution should be received or deposited in this account. The person may open another FCRA account in any scheduled bank of their choice for keeping or utilising the received contribution.

**Q.12)** Consider the following statements regarding the **Strengthening Teaching-Learning and Results for States (STARS)** project:

1. The Program envisions improving the overall monitoring and measurement activities in the Indian education system through interventions in each state and UT.
2. It is being implemented as Centrally Sponsored Scheme.
3. The STARS project is receiving financial assistance from the World Bank.

Which of the statements given above is/are correct?

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

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d) All of the above

**Correct answer: B**

**Explanation:** Statement 1 is incorrect. The objective of the **Strengthening Teaching-Learning and Results for States (STARS) Operation** for India is to improve the quality and governance of school education in selected states.

The project covers 6 States viz **Himachal Pradesh, Rajasthan, Maharashtra, Madhya Pradesh, Kerala and Odisha**. The identified States will be supported for various interventions for improving the quality of education.

Statement 2 and 3 are correct. The total project cost of STARS project is Rs 5718 crore with the financial support of World Bank amounting to US \$ 500 million (approximately Rs. 3700 crore) and rest coming as State share from the participating States, over a period of 5 years.

STARS project would be implemented as a new Centrally Sponsored Scheme under Department of School Education and Literacy (DoSEL), MOE.

**Q.13)** Which of the following is/are potential benefit(s) for India of promoting **blending of fuel grade ethanol with petrol**?

1. Boost to agricultural economy
2. Saving of foreign exchange
3. Reduction in air pollution

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 Government has fixed a target of **10% blending of fuel grade ethanol with petrol by 2022 and 20% blending by 2025**. This has been done with a view to **boost agricultural economy, to reduce dependence on imported fossil fuel, to save foreign exchange on account of crude oil import bill and to reduce the air pollution** as Ethanol and ethanol-gasoline mixtures burn cleaner and have higher octane levels than pure gasoline.

To meet out the requirement of ethanol, the Government has notified a scheme for extending financial assistance to project proponents for enhancement of their ethanol distillation capacity or to set up distilleries for producing 1st Generation (1G) ethanol from feed stocks such sugarcane, rice available with Food Corporation of India, maize etc.

Ethanol is a renewable biofuel because it is made from biomass. Ethanol is a clear, colorless alcohol made from a variety of biomass materials called feedstocks. Fuel ethanol feedstocks include grains and crops with high starch and sugar content such as corn, sorghum, barley, sugar cane, and sugar beets.

**Q.14)** Consider the following statements regarding **India's gallantry awards**:

1. The Param Vir Chakra, given for displaying acts of valour during wartime, is India's highest military decoration.
2. Civilian citizens as well as members of Police Forces are eligible to be awarded the Ashoka Chakra.

Which of the statements given above is/are correct?

- a) 1 only



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

**Correct answer: C**

**Explanation:** Statement 1 is correct. **Post-independence**, first three gallantry awards namely Param Vir Chakra, Maha Vir Chakra and Vir Chakra were instituted by the Government of India on 26th January 1950. Thereafter, other three gallantry awards i.e. Ashoka Chakra Class-I, Ashoka Chakra Class-II and Ashoka Chakra Class-III were instituted in 1952, which were renamed as Ashoka Chakra, Kirti Chakra and Shaurya Chakra respectively in January, 1967.

**Order of precedence** of these awards is the Param Vir Chakra, the Ashoka Chakra, the Mahavir Chakra, the Kirti Chakra, the Vir Chakra and the Shaurya Chakra.

Statement 2 is correct. The Ashoka Chakra, Kirti Chakra and the Shaurya Chakra awards can be made to any member of the armed forces, police forces as well as civilians in the war effort or during peacetime.

**Q.15)** Consider the following statements regarding the **Water Technology Initiative (WTI) programme:**

1. It aims to promote Research & Development activities for providing safe drinking water at affordable cost and in adequate quantity.
2. It is being implemented by the NITI Aayog under the Atal Innovation Mission.

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. **Water Technology Initiative**, initiated in August 2007 aims to promote R&D activities aimed at providing safe drinking water at affordable cost and in adequate quantity using appropriate Science and Technology interventions evolved through indigenous efforts. Since quality is the main consideration of safe drinking water, processes which imply nano-material and filtration technologies have been focused.

Statement 2 is incorrect. The Water Technology Initiative programme is an initiative of the **Department of Science & Technology (DST)**.

*# IIT Bombay has come up with 'Shaft with Multiple Outlets' as an intervention for improving the performance of existing piped water distribution networks. The intervention consists of a new strategy of optimal water supply operation by use of scheduling and decentralizing infrastructure.*

*With support from the DST-Water Technology Initiative, IIT Bombay & IIT Madras, with participation of local gram panchayat, implemented the solution in the towns of Saphale, and Umerpada, in Palghar district, Maharashtra, which is currently provided with water from a multi village water supply system.*

**Q.16)** Consider the following statements regarding the **Padma Awards:**

1. Padma Vibhushan for exceptional and distinguished service is the highest civilian award of India.

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2. The Padma Awards are conferred on the recommendations made by the Padma Awards Committee, chaired by the Prime Minister.

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. **Bharat Ratna** is the highest civilian award of the country. The Padma Awards are one of the highest civilian honours of India announced annually on the eve of Republic Day.

The Awards are given in three categories: Padma Vibhushan (for exceptional and distinguished service), Padma Bhushan (distinguished service of higher order) and Padma Shri (distinguished service).

Statement 2 is incorrect. All nominations received for **Padma Awards** are placed before the Padma Awards Committee, which is constituted by the Prime Minister every year. The Padma Awards Committee is headed by the Cabinet Secretary and includes Home Secretary, Secretary to the President and four to six eminent persons as members. The recommendations of the committee are submitted to the Prime Minister and the President of India for approval.

**Q.17)** What is the objective of the recently launched “**AYU SAMVAD**” Campaign?

- a) Information dissemination to curb vaccine hesitancy among people
- b) Awareness campaign on ‘Ayurveda for COVID 19 Pandemic’
- c) Promoting minimization of individual carbon footprint for long and sustainable livelihood
- d) Improving the communication between the elderly and younger generation

**Correct answer: B**

**Explanation:** “**AYU SAMVAD**” (**My Health My Responsibility**) is one of the largest public awareness campaign programs on AYURVEDA and COVID 19 PANDEMIC, organized by All India Institute of Ayurveda New Delhi, as envisioned & supported by Ministry of AYUSH. More than 5 lac lectures will be organized across the nation by Ayurveda Physicians for citizens of India.

This campaign will be immensely beneficial in understanding the importance of Ayurveda & in the fight against COVID 19 & also for Post Covid Management. This campaign will specifically focus on the Role of Preventive, Promotive, Curative and Rehabilitation in Management of COVID 19 through Ayurveda.

**Q.18)** Which of the following force(s) of India participated in the amphibious exercise **AMPHEX – 21**?

- 1. Indian Army
- 2. Indian Air Force
- 3. Indian Navy

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

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**Correct answer: D**

**Explanation:** A **large-scale tri-service joint amphibious exercise AMPHEX - 21** was conducted in Andaman & Nicobar group of islands from 21 - 25 Jan 2021. The exercise involved participation of Naval ships, amphibious troops of the Army and different types of aircraft from the Air force.

The exercise involved multi-faceted maritime operations by synergised employment of amphibious assault ships, surveillance platforms, execution of maritime air strikes and complex manoeuvres at sea. Airborne insertion of Marine Commandos of Navy and Special Forces of the Army, naval gunfire support, amphibious landing of forces and follow-on operations also formed part of the exercise.

Exercise KAVACH for defence of Andaman & Nicobar Islands formed a part of AMPHEX - 21.

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### **ECONOMICS**

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**Q.1)** Which of the following is/are the objective(s) of **divestment of public sector undertakings**?

1. To introduce, competition and market discipline
2. To reduce the financial burden on the Government
3. To depoliticise non-essential services

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:** Disinvestment means sale or liquidation of assets by the government, usually Central and state public sector enterprises, projects, or other fixed assets.

**Factors responsible for low profits in the PSUs:** Price policy of public sector undertakings, Under-utilisation of capacity, Problems related to planning and construction of projects, Problems of labour, personnel and management, Lack of autonomy.

**Major objectives of disinvestment:** To reduce the financial burden on the Government, improve public finances, introduce, competition and market discipline, fund growth, encourage wider share of ownership and to depoliticise non-essential services.

**Q.2)** Which of the following is/are the objective(s) of the **Accommodative stance** of Monetary policy by Central bank?

1. Expansion of money supply in economy
2. Sale of government securities by the Central Bank

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:** Option 1 is correct. An **accommodative stance** means a central bank will cut rates to inject money into the financial system whenever needed.

Accommodative monetary 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.

It has its use when economic growth/activity is slowing down, as money is easily accessible through banks, the money supply in the economy increases. This leads to increased spending. When businesses can easily borrow money, they have more funds to expand operations and hire more workers, which means that the unemployment rate will decrease.

Option 2 is incorrect. Sale of G-Secs will in effect reduces the money supply while accommodative stance aims to inject money in the economy.

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**Q.3)** Consider the following statements regarding the **Foreign Direct Investment (FDI)**:

1. It is an important source of non-debt finance for the economic development
2. It adds volatility in market and does not imply the establishment of a lasting interest in a business

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. **Foreign Direct Investment (FDI)** is a major driver of economic growth and an important source of non-debt finance for the economic development of India.

It is the primary sources of external capital as well as increased revenues for a country. It often results in the opening of factories in the country of investment, in which some local equipment – be it materials or labour force, is utilised.

Statement 2 is incorrect. There is a difference between **FDI and FPI (Foreign Portfolio Investments)**, wherein the investor purchases equity of foreign companies. FPI means only equity infusion and does not imply the establishment of a lasting interest.

FDI can be Greenfield, wherein an organisation creates a subsidiary concern in another country and builds its business operations there from the ground up.

Alternatively, FDI can be brownfield - wherein an organisation expands by way of cross-border mergers, acquisitions and joint ventures - by either leasing or purchasing existing facilities for its production.

*# During April to November, 2020, total FDI inflow of US\$ 58.37 billion has been received. It is the highest ever for first 8 months of a financial year and 22% higher as compared to first 8 months of 2019-20 (US\$ 47.67 billion).*

**Q.4)** Which of the following is/are the characteristics of the **Public Goods**?

1. Non-excludable
2. Non-rivalrous

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:** **Public goods** have two distinct aspects: non-excludability and non-rivalrous consumption.

**Non-excludability** means that the cost of keeping nonpayers from enjoying the benefits of the good or service is prohibitive, i.e., the good is available to all citizens.

**Non-rivalrous** means that the goods do not dwindle in supply as more people consume them, i.e., when a good is consumed, it doesn't reduce the amount available for others.

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**Q.5)** Consider the following statements regarding findings of **Economy Survey 2020-21** on Indian economy:

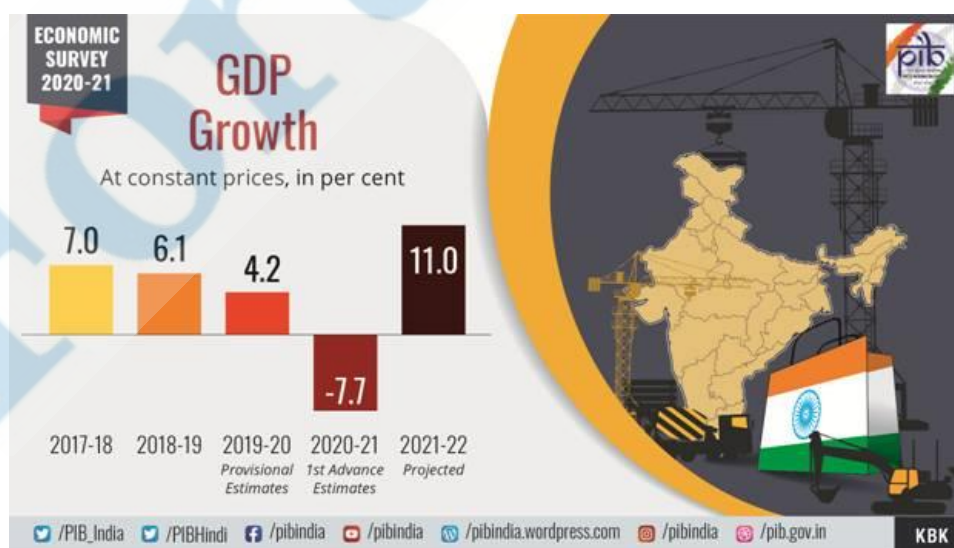
1. The Financial Year 2021-22 is expected to see a rise in GDP Growth rate after three years of continuous fall.
2. The Financial Year 2021-22 is expected to have a Current Account Surplus for the first time in last decade.

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. India's real GDP to record a growth of 11 per cent in 2021-22 and nominal GDP by 15.4 per cent-the highest since independence. The GDP growth rate has been declining since 2016-17.



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Statement 2 is incorrect. India is likely to post a current account surplus after a gap of 17 years, at 2 per cent of GDP during **2020-21**. India's current account deficit averaged 2.2 per cent of gross domestic product (GDP) in the last 10 years.

**Q.6)** Consider the following statements regarding **trends in Indian economy in pandemic year 2020-21**:

1. The Services sector have shown a positive growth rate despite the slowdown in economy.
2. The Agriculture, Forestry and Fishing sector is estimated to have negative growth rate.

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.

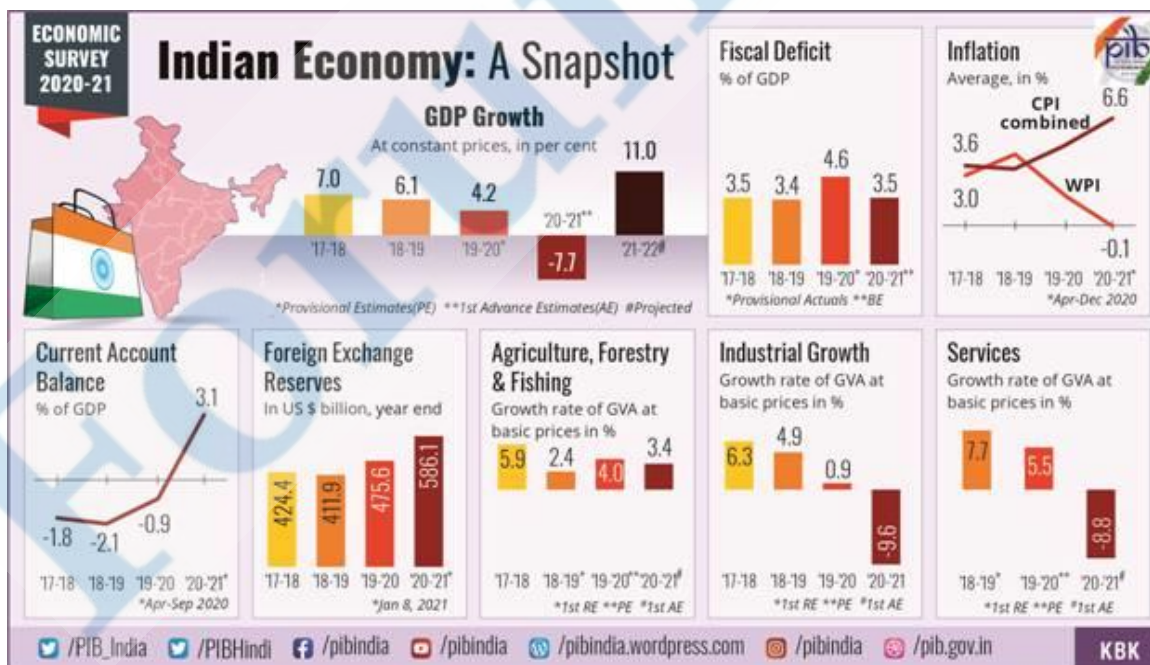
**Trends in Indian Economy:**

--India expected to have a Current Account Surplus of 2% of GDP in FY21, a historic high after 17 years

--On supply side, Gross Value Added (GVA) growth pegged at -7.2% in FY21 as against 3.9% in FY20:

--Agriculture set to cushion the shock of the COVID-19 pandemic on the Indian economy in FY21 with a growth of 3.4%

--Industry and services estimated to contract by 9.6% and 8.8% respectively during FY21



**Q.7)** Consider the following statements:

1. The National Statistical Office (NSO) prepares national accounts as well as publishes annual estimates of national product of India.

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2. The share of Gross Value Added (GVA) of the Tertiary sector has been consistently above fifty percent of overall GVA for last five years.

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 **National Statistical Office (NSO), Ministry of Statistics and Programme Implementation** 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.

Statement 2 is correct.

Year	Share in GVA at current prices (in %)			
	Primary	Secondary	Tertiary	All
2011-12	21.7	29.3	49.0	100.0
2012-13	21.3	28.7	50.0	100.0
2013-14	21.4	27.9	50.6	100.0
2014-15	20.9	27.3	51.8	100.0
2015-16	20.1	27.6	52.3	100.0
2016-17	20.4	27.0	52.6	100.0
2017-18	20.4	27.0	52.5	100.0
2018-19	19.8	26.8	53.4	100.0
2019-20	20.3	24.7	55.0	100.0

**Q.8)** Consider the following statements regarding the **Eight Core Industries**:

- 1. Combined weight of eight core industries is more than fifty percent in Index of Industrial Production (IIP).
- 2. Electricity has highest weightage in the Index of Eight Core Industries (ICI).

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



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**Correct answer: D**

**Explanation:** Statement 1 is incorrect. The Quick Estimates of **Index of Industrial Production (IIP)** are released by NSO on 12th of every month with a six weeks lag and compiled with data received from source agencies, which in turn receive the data from the producing factories/ establishments.

Combined weight of eight core industries is **40.27 percent of IIP** with base 2011-12.

Statement 2 is incorrect. The monthly **Index of Eight Core Industries (ICI)** is a production volume index released by Office of the Economic Adviser (OEA). ICI measures collective and individual performance of production in selected eight core industries viz. Coal, Crude Oil, Natural Gas, Refinery Products, Fertilizers, Steel, Cement and Electricity.

Refinery Products has highest weightage in ICI.

**Table :** The Total weight for the Core Industries in IIP (2011-12) and Normalized weight

S.No.	Industries	Weights (% as in IIP 2011-12)	Weights(% in ICI)
1	Coal	4.1609	10.3335
2	Natural Gas (UT)	2.7690	6.8768
3	Crude Oil	3.6172	8.9833
4	Refinery Products	11.2896	28.0376
5	Fertilizers	1.0580	2.6276
6	Steel	7.2143	17.9166
7	Cement	2.1631	5.3720
8	Electricity	7.9940	19.8530
	<b>Total</b>	<b>40.2660</b>	<b>100.0000</b>

# The combined Index of Eight Core Industries stood at 133.8 in December, 2020, which declined by 1.3 (provisional) per cent as compared to the Index of December, 2019. Its cumulative growth during April to December, 2020-21 has been (-) 10.1%.

**Q.9)** Consider the following statements regarding the **National Small Savings Fund (NSSF)**:

1. All deposits under small savings schemes are credited to the 'National Small Savings Fund' (NSSF), established in the Public Account of India.
2. The balance in the Fund is invested in corporate bonds.

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. All deposits under small savings schemes are credited to the '**National Small Savings Fund**' (NSSF), established in the Public Account of India with effect from 1.4.1999. All withdrawals by the depositors are made out of the accumulations in this Fund.

Statement 2 is incorrect. The balance in the Fund is invested in special **Government securities** as per norms decided from time to time by the Central Government. The special Central Government securities issued to NSSF constitute a part of the internal debt of the Government of India.

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### POLITY

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**Q.1)** Consider the following statements regarding the **Sixth Schedule** areas:

1. None of the states of India north of the tropic of cancer have areas under the Sixth Schedule.
2. The Governor may, by public notification increase or decrease the area of an autonomous district under the Sixth Schedule.

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 **Sixth Schedule** which applies to the Tribal Areas of **Assam, Meghalaya, Tripura and Mizoram**, provides for autonomy in the administration of these areas through Autonomous District Councils (ADCs) and the Regional Councils empowered to make laws in respect of areas under their jurisdiction.

*Tropic of Cancer passes through 8 Indian states including: Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand, West Bengal, Tripura and Mizoram.*

Statement 2 is correct. The **Governor may, by public notification**, include/exclude any area, create a new autonomous district, increase/diminish the area of any autonomous district, unite two or more autonomous districts or parts thereof so as to form one autonomous district, alter the name of any autonomous district, define the boundaries of any autonomous district.

**Q.2)** Consider the following statements:

1. Constitution of India explicitly mentions the date of enactment of the Constitution.
2. 'Beating The Retreat' ceremony on 29<sup>th</sup> January officially denotes the end of Republic Day festivities.

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 **Preamble to the constitution** of India provides the date of adoption and enactment of the Constitution as 26th January, 1950.

*WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens:*

*JUSTICE, social, economic and political;*

*LIBERTY of thought, expression, belief, faith and worship;*

*EQUALITY of status and of opportunity;*

*and to promote among them all FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation;*

*IN OUR CONSTITUENT ASSEMBLY this 26th day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.*

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Statement 2 is correct. **‘Beating The Retreat’** officially denotes the end of Republic Day festivities. It is conducted on the evening of January 29, the third day after the Republic Day.

**Q.3)** Consider the following statements regarding the **Protection of Children from Sexual Offences Act, 2012**:

1. The said Act defines a child as any person below eighteen years of age.
2. It provides for Special Courts that conduct the trial in-camera and without revealing the identity of the child.

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. **Protection of Children from Sexual Offences Act, 2012** defines a child as any person below eighteen years of age, and defines different forms of sexual abuse, including penetrative and non-penetrative assault, as well as sexual harassment and pornography.

People who traffic children for sexual purposes are also punishable under the provisions relating to abetment in the said Act. The said Act prescribes stringent punishment graded as per the gravity of the offence, with a maximum term of rigorous imprisonment for life, and fine. Statement 2 is correct. The said Act provides for **Special Courts** that conduct the trial in-camera and without revealing the identity of the child, in a child-friendly manner. The child is not to be called repeatedly to testify in court and may testify through video-link rather than in a courtroom. The said Act stipulates that a case of child sexual abuse must be disposed of within one year from the date the offence is reported.

**Q.4)** Consider the following statements regarding the **ordinance making power of the President**:

1. An ordinance can only be promulgated when both houses of the Parliament are not in session.
2. Any ordinance promulgated can be withdrawn by the President at any time.

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. **Article 123 of the Constitution** grants the President certain law-making powers to promulgate Ordinances when either of the two Houses of Parliament is not in session and hence it is not possible to enact laws in the Parliament.

Statement 2 is correct. The President cannot promulgate an Ordinance unless he is satisfied that there are circumstances that require taking ‘immediate action’ and s/he can withdraw an ordinance at any time.

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**Q.5)** Constitution of India provides for **President's address to the Parliament** on which of the following occasion(s)?

1. The first session after each general election to the House of the People
2. At the commencement of the first session of each year
3. On introduction of a Constitutional amendment bill

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: Article 87 of the Constitution** provides for Special address by the President.

*At the commencement of the first session after each general election to the House of the People and at the commencement of the first session of each year the President shall address both Houses of Parliament assembled together and inform Parliament of the causes of its summons.*

Originally, the President was required to address each session of Parliament. Therefore, during the provisional Parliament in 1950, President Rajendra Prasad gave an address before every session. The First Amendment to the Constitution in 1951 changed this position and made the President's address once a year.