



# **Prelims Marathon**

## May, 2020

HISTORY ECONOMICS POLITY SCIENCE AND TECHNOLOGY GEOGRAPHY AND ENVIRØNMENT

## Geography

**Q.1)** Which of the following **"River Basin"** is surrounded by Vamsadhara in the north, Champavathi and Peddagedda in the South, Godavari in the West and the Bay of Bengal in the east?

- a) Nagavali Basin
- b) Rushkuliya Basin
- c) Sarada Basin
- d) Subarnarekha Basin

#### Ans) A

**Explanation:** The River Nagavali is a medium sized east flowing river in peninsular India. It is surrounded by Vamsadhara in the north, Champavathi and Peddagedda in the South, Godavari in the West and the Bay of Bengal in the east. It drains parts of the distgricts of Kalahandi, Rayagada, Koraput of Orissa and Sirkakulam, Vizianagaram and Visakhapatnam of Andhra Pradesh State. The total basin area is 9510 Sq. Km. the Nagavali originates near the Lakhabahal in Kalahandi district at an elevation of about 1300 m. The total length of the river run is 256 Km., out of which the first 161 Km., are in Orissa and the rest in Andhra Pradesh. The important tributaries are Barha, Suvarnamukhi, Vonigedda, Vegavathi and Relligedda.

Q.2) Which of the following statement is NOT correct about Andaman & Nicobar Islands?

a) Duncan passage separates Little Andaman from South Andaman.

b) Ten Degree Channel separates Great Andaman group from Nicobar group.

c) Saddle peak in South Andaman is the highest peak.

d) None.

#### Ans) C

**Explanation:** The Andaman Islands are divided into three main islands i.e. North, Middle and South. Duncan passage separates Little Andaman from South Andaman. The Great Andaman group of islands in the north is separated by the Ten Degree Channel from the Nicobar group in the south. Among the Nicobar Islands, the Great Nicobar is the largest. It is the southernmost island and is very close to Sumatra island of Indonesia. The Car Nicobar is the northernmost. Some of the islands are fringed with coral reefs. Many of them are covered with thick forests. Most of the islands are mountainous. Saddle peak (737 m) in North Andaman is the highest peak.

Q.3) "Taklamakan Desert" is located in which of the following country?

- a) Argentina
- b) South Africa
- c) Canada
- d) China

#### Ans) D

**Explanation:** Takla Makan Desert, Chinese (Pinyin) Taklimakan Shamo great desert of Central Asia is one of the largest sandy deserts in the world. The Takla Makan occupies the central part of the Tarim Basin in the Uygur Autonomous Region of Xinjiang, western China. The desert area extends about 600 miles (960 km) from west to east, and it has a maximum width of some 260 miles (420 km) and a total area of

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approximately 123,550 square miles (320,000 square km). The desert reaches elevations of 3,900 to 4,900 feet (1,200 to 1,500 metres) above sea level in the west and south and from 2,600 to 3,300 feet (800 to 1,000 metres) in the east and north.

Q.4) Which of the following statements is/are correct about "Red soils" in India?

1. Red soil is formed as a result of weathering of metamorphic and igneous rocks.

2. It is rich in nitrogen content but lacks potash, humus and phosphate content.

Choose the correct answer from the code given below:

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

## Ans) A

**Explanation: Statement 1 is correct**: Red soil is formed as a result of weathering of metamorphic and igneous rocks. The red color of the soil comes from the high percentage of iron content. The soil's texture varies from being sandy to clayey, but it is mainly loamy. **Statement 2 is incorrect**: Red soil is rich in potash content but lacks phosphate, humus and nitrogen content. The red soil is found in regions such as Tamil Nadu, Madhya Pradesh, Jharkhand, Odisha, some parts of Karnataka and southeast Maharashtra.

Q.5) "Taptapani hot spring" is located in which of the following state?

- a) Jharkhand
- b) Arunachal Pradesh
- c) Himachal Pradesh
- d) Odisha

#### Ans) D

**Explanation:** Taptapani hot spring famous for a perennial hot spring of **"Medicinal Sulfuric Water"** which is located on the State Highways that connects Berhampur with Western Odisha. Being surrounded by a cluster of hills and thick forests, the serenity of nature at Taptapani is added by wonderful sights of sun rise, sun set moon lit night, tribal dance and music, chirps of birds and sight of wild animals.

Q.6) Which of the following is/are tributaries of "Yamuna River"?

- 1. Rishi Ganga Kunta
- 2. Hanuman Ganga
- 3. Tons

4. Giri

Choose the correct answer from the code given below:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1, 2, 3 and 4
- d) 3 and 4 only

#### Ans) C

**Explanation:** The River Yamuna, a **major tributary of river Ganges**, originates from the **Yamunotri glacier near Banderpoonch peaks** in the Mussourie range of the lower Himalayas at an elevation of about 6387 meters above mean sea level in district Uttarkashi (Uttarakhand). In its first 170 km stretch, the **tributaries Rishi Ganga Kunta, Hanuman Ganga, Tons and Giri join the main river**.



Q.7) "Cho-la" pass is located in which of the following state?

- a) Sikkim
- b) Arunachal Pradesh
- c) Himachal Pradesh
- d) Uttarakand

## Ans) A

**Explanation:** Sikkim is a land of dramatic contours. Rugged mountains, deep valleys and dense forests consort with raging rivers, lakes and waterfalls to create a visual feast. The state has the steepest rise in altitude over the shortest distance and has within its 7,096 sq. kms the entire climatic range, from tropical to temperate to alpine. Located between these towering mountain ranges are **passes like Nathu-la**, Jelep-la, Cho-la and many others which were at one time important corridors of passage between Sikkim and Tibet.

## Q.8) "Bhatin, Narwapahar and Turamdih" are famous for which of the following?

- a) Bauxite mines
- b) limestone mines
- c) Thorium mines
- d) Uranium mines

## Ans) D

**Explanation: Jaduguda in Singhbhum Thrust Belt** (in the state of Jharkhand, formerly part of Bihar) is the **first uranium deposit to be discovered in the country in 1951**. The discovery of uranium at Jaduguda in this belt paved the way for intensive exploration work and soon a few more deposits were brought to light in this area. Some of these deposits like **Bhatin, Narwapahar and Turamdih are well known uranium mines of the country**.

Q.9) "Apennine Mountain Range" is located in which of the following continent?

- a) North America
- b) South America
- c) Antarctica
- d) Europe

#### Ans) D

**Explanation:** The **Apennine mountain range stretches the length of the Italian Peninsula**. In 2000, the Environment Ministry of Italy suggested extending the range to include the mountains of Northern Sicily. This addition would make the range 1,500 kilometers (930 miles) long, tying them in length with the Carpathians. It has one of the most intact ecosystems in the country. These mountains are one of the last natural refuges of the largest European predators like the Italian wolf and Marsican brown bear, which have gone extinct in other regions. The **highest point is Corno Grande at 2,912 meters** (9,553 feet.).

Q.10) Which of the following statements is/are correct about "Sea Ice"?

1. It raises sea level when it melts.

2. It is one way that scientists study the effects of climate change.

- Choose the correct answer from code given below:
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2



Ans) B

**Explanation:** Sea ice **forms when water in the oceans is cooled to temperatures below freezing**. Most sea ice forms in the Arctic and Antarctic Oceans. Sea ice:

- **Does not raise sea level** when it melts, because it forms from ocean water.
- Is **closely linked with our planet's climate**, so scientists are concerned about its recent decline.
- Fills a **central role in the lives and customs** of native Arctic people.
- Provides a place for polar bears, seals, and other animals to live.
- Is one way that scientists study the effects of climate change.

**Q.11)** With reference to the '**Major ports in India**', which of the following statements is/are correct?

1. Kolkata port is the only riverine port in India.

2. Vishakhapatnam port is India's deepest land locked port.

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

## ANS) C

#### **Explanation:** Major ports in India.

**Statement 1 is correct**: Kolkata is the **only riverine major port** in India. Known for twin dock systems viz., Kolkata Dock System (KDS) on the eastern bank and Haldia Dock Complex (HDC) on the western bank of river Hooghly.

Statement 2 is correct: Vishakhapatnam is India's deepest landlocked port handling crude oil and petroleum products.

Q.12) Which of the following statements is/are correct about 'Golden Quadrilateral'?

1. It is a network of highways connecting India's four top metropolitan cities, namely Delhi, Mumbai, Chennai and Kolkata, thereby, forming a quadrilateral.

2. It was launched in 2001 as part of National Highways Development Project (NHDP). 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

## ANS) C

**Explanation:** Golden Quadrilateral.

**Statement 1 is correct**: Golden Quadrilateral is a network of highways connecting India's four top metropolitan cities, namely Delhi, Mumbai, Chennai and Kolkata, thereby, forming a quadrilateral.

**Statement 2 is correct**: The largest highway project in India, the Golden Quadrilateral project was **launched in 2001** as part of National Highways Development Project (NHDP).

**Q.13)** With reference to the '**rubber cultivation in India**', which of the following statements is/are **NOT** correct?

1. It grows well in temperature conditions between 15-25 degrees centigrade.

2. Rainfall should be between 200 cm and 400 cm.

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

## ANS) A

**Explanation:** Rubber cultivation in India.

**Statement 1 is incorrect**: Rubber grows well in places whose temperature does not go below 21 degrees centigrade, and where humidity and heat is quite high. It grows well in temperature conditions between 25 to 35 degrees centigrade.

**Statement 2 is correct**: Rainfall should be between 200cm and 400cm. It should not be less than 152cm. Rainfall must be fairly evenly distributed throughout the year because strong seasonal rainfall is unsustainable. Long dry spell and low temperature are very harmful for the crop.

Q.14) Which of the following crops is/are grown in 'kharif season'?

- 1. Rice
- 2. Maize
- 3. Jute
- 4. Mustard

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1, 3 and 4 only
- d) 1, 2, 3 and 4

#### ANS) A

**Explanation:** The kharif crops are associated with the Southwest Monsoon. They are sown in the months of June and July and harvested in autumn months, i.e., in September and October. **Important kharif crops are rice, jowar, bajra, ragi, maize, sugarcane, cotton and jute**.

Q.15) 'Charmanvati' is the ancient name of which of following River?

- a) Yamuna River
- b) Sabarmati River
- c) Tapti River
- d) Chambal River

#### ANS) D

**Explanation:** The **Chambal River, called Charmanvati in ancient times**, is the largest of the rivers flowing through and Rajasthan State. This is a major tributary of Yamuna which is 960 km long. Located in Central India, the river comprises a significant portion of the Greater Gangetic Drainage System.

Q.16) The term 'Ekman Spiral' is related to which of the following?

- a) Milky Way
- b) Cyclone
- c) Coriolis Effect
- d) Jet stream

ANS) C



Explanation: The Ekman spiral, named after Swedish scientist Vagn Walfrid Ekman (1874-1954) who first theorized it in 1902, is a consequence of the Coriolis Effect. When surface water molecules move by the force of the wind, they, in turn, drag deeper layers of water molecules below them. Each layer of water molecules is moved by friction from the shallower layer, and each deeper layer moves more slowly than the layer above it, until the movement ceases at a depth of about 100 meters (330 feet). Like the surface water, however, the deeper water is deflected by the Coriolis Effect-to the right in the Northern Hemisphere and to the left in the Southern Hemisphere. As a result, each successively deeper layer of water moves more slowly to the right or left, creating a spiral effect. Because the deeper layers of water move more slowly than the shallower layers, they tend to "twist around" and flow opposite to the surface current.

**Q.17)** Which of the following is **NOT** a cold ocean current?

- a) Canary Current
- b) Kuroshio Current
- c) California Current
- d) Benguela Current

#### ANS) B

**Explanation:** Cold currents flow toward the equator on the eastern side of ocean basins. Examples of cold ocean currents include the Canary Current in the North Atlantic, the California Current in the North Pacific, and the Benguela Current in the South Atlantic.

Q.18) Which of the following landmasses are separated by 'Bass Strait'?

- a) Australia and Tasmania Islands
- b) South Korea and Japan
- c) United Kingdom and France
- d) Mexico and Cuba

#### ANS) A

**Explanation:** The Bass Strait is a sea strait separating Tasmania from the south of the Australian mainland, specifically the state of Victoria. The strait was named after George Bass after he and Matthew Flinders passed through it while circumnavigating Van Diemen's Land (Tasmania) in the Norfolk in 1798-99. At Flinders' recommendation in 1800, the Governor of New South Wales named the stretch of water between the mainland and Tasmania "Basses Strait". Later it became known as Bass Strait.

Q.19) 'Shipki La' pass is located in which of the following state?

- a) Himachal Pradesh
- b) Uttarakhand
- c) Sikkim
- d) Arunachal Pradesh

#### ANS) A

**Explanation:** Shipki La is a mountain pass and border post on the India-Tibet border. It is **located in Kinnaur district in the state of Himachal Pradesh**, India, and Tibet Autonomous Region in People's Republic of China. Sutlej River enters India (from Tibet) through this pass. It is an offshoot of the ancient Silk Road. It is a border post for trade with China.



**Q.20)** Consider the following statements about National Waterways in India:

- 1. National Waterway Number 1 (NW 1) is located on Ganga river between Agra and Haldia.
- 2. National Waterway Number 6 (NW 6) is located on Yamuna river between Delhi and Allahabad.

Which of the statements given above is/are **not** correct?

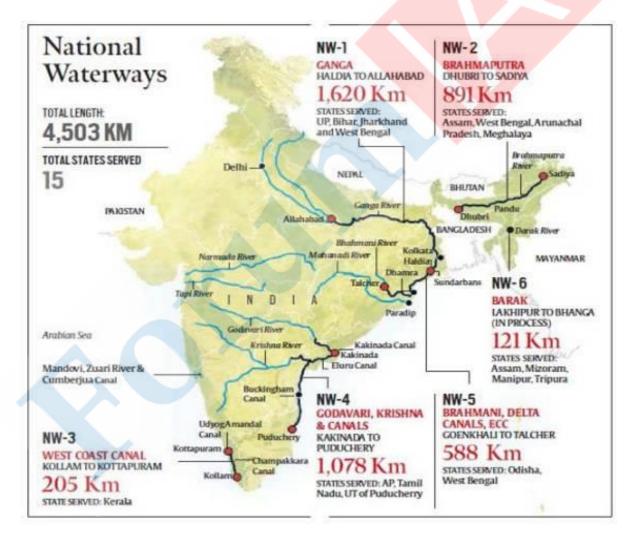
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

## ANS) C

## Explanation:

**Statement 1 is incorrect:** National waterway Number 1 is on the Ganga - Bhagirathi - Hooghly river system between Haldia (Sagar) & Allahabad (1620 km).

**Statement 2 is incorrect:** National Waterway Number 6 is located on Barak river between Lakhimpur and Bhanga.



#### Q.21) The "Kalsubai peak" is located in which of the following state?

- a) Maharashtra
- b) Madhya Pradesh
- c) Gujarat
- d) Karnataka



#### ANS) A

**Explanation: Kalsubai Peak is located in Akole taluka of Ahmednagar district**. The Kaslubai temple is situated at the topmost peak of Sahyadri mountain range of Maharashtra, its commands a beautiful view. The natural peak of Kalsubai is located 10 km away from Bhandardara dam. Kalsubai height is of 1646 meters and is known as one of the highest peaks in Maharashtra state.

**Q.22)** Which of the following pairs are correctly matched:

- Cyclone : Region
- 1. Hurricanes : Caribbean
- 2. Typhoons : China
- 3. Willy-Willies : South Africa

Select the correct answer using the codes given below:

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

#### ANS) B

**Explanation:** In low latitudes, an intense depression with a low pressure centre is known as a **Tropical cyclone in the Indian Ocean area, as hurricanes in the Caribbean, typhoons in China and Willy-willies in Australia**.

Q.23) The term "Selvas" is related to which of the following?

- a) Tundra vegetation
- b) Mediterranean vegetation
- c) Grass land vegetation
- d) Equatorial vegetation

#### ANS) D

**Explanation:** High temperature and abundant rainfall support a luxuriant tropical rain forest. In the **Amazon lowlands, the forest is so dense that it is called 'selvas'**. [selvas: A **dense tropical rainforest usually having a cloud cover (dense canopy**)]. Unlike the temperate regions, the growing season here is all the year round-seeding, flowering, fruiting and decaying not take place in a seasonal pattern.

Q.24) Which of the following statements is/are correct about "Damodar River"?

- 1. Damodar River rises in the Palamau hills of Chota Nagpur plateau.
- 2. The biggest tributary of the Damodar River is the Bokaro.

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

#### ANS) A

#### **Explanation:** Damodar River.

**Statement 1 is correct**: The **Damodar River rises in the Palamau hills of Chota Nagpur** at an elevation of about 609.75 m. It flows in a south-easterly direction entering the deltaic plains below Raniganj. Near Burdwan, the river abruptly changes its course to a southerly direction and joins Hooghly about 48.27 km below Calcutta. Its slope during the first

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241.35 km is about 1.89 m/km, during the next 160.9 km about 0.568 m/km and during the last 144.8 km about 0.189 m/km. The total length of the river is nearly 547 km and a total drainage area is 22,005 sq. km.

**Statement 2 is incorrect**: The tributaries and subtributaries of the Damodar include Konar, Barakar, Haharo, Bokaro, Ghari, Jamunia, Khadia, Guaia and Bhera. **The biggest tributary of the Damodar River is the Barakar.** The source of Barakar is located in the vicinity of Padma in Hazaribagh district. Subsequently, the river runs through Jharkhand prior to joining the Damodar close to Dishergarh in West Bengal. The Barakar and the Damodar get the Chota Nagpur flat terrain divided into three parts. The rivers flow through mountainous regions with enormous might, overwhelming anything that comes in their way.

**Q.25)** With reference to the "**International Date line**", which of the following statements is/are **NOT** correct?

- 1. It functions as a "line of demarcation".
- 2. It has no legal international status.
- 3. It is a straight line.

Select the correct answer using the code given below:

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

#### ANS) D

**Explanation:** The International Date Line, established in 1884, passes through the mid-Pacific Ocean and roughly follows a 180 degrees longitude north-south line on the Earth. It is located halfway round the world from the prime meridian—the zero degrees longitude established in Greenwich, England, in 1852. **The International Date Line functions as a "line of demarcation" separating two consecutive calendar dates**. When you cross the date line, you become a time traveler of sorts! Cross to the west and its one day later; cross back and you've "gone back in time." Despite its name, **the International Date Line has no legal international status** and countries are free to choose the dates that they observe. While the **date line generally runs north to south from pole to pole, it zigzags around political borders such as eastern Russia and Alaska's Aleutian Islands**.

Q.26) "EGA-WLS formula" is related to which of the following?

- a) Atmospheric pressure
- b) Time measurement
- c) Ocean acidification
- d) Thermal insulation

#### ANS) B

**Explanation:** Since the earth makes one complete rotation of 360° in one day or 24 hours, it passes through 15° in one hour or 1° in 4 minutes. The earth rotates from west to east, so every 15° we go eastwards, local time is advanced by 1 hour. If we know G.M.T, to find local time, we merely have to add or subtract the difference in the number of hours from the given longitude, as illustrated below. A simple memory aid for this will be **East-Gain-Add** (E.G.A.) and West-Lose-Subtract (W.L. S.).

**Q.27)** Which of the following hills is/are example of "**Residual Mountains**"? 1. Nilgiri hills



- 2. Parasnath hills
- 3. Rajmahal hills

Select the correct answer using the code given below:

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

## ANS) D

**Explanation:** Mountains that have been eroded by the agents of degradation such as winds, rain, frost and running water leaving behind only the hard rocks are known as residual mountains. These hard rocks that are left behind are known as the residual mountains. **Examples of Residual Mountains are Nilgiri, Parasnath and Rajmahal hills in India**.

Q.28) The terms "polders and dykes" is related to which of the following?

- a) River deposition
- b) Wind deposition
- c) Marine deposition
- d) None

## ANS) C

**Explanation:** Marine Deposition-These plains are found in coastal regions. Examples are the east coast of India, the estuarine banks in Netherlands coast of Germany and Denmark. In Denmark we find **polders and dykes**. A polder is a piece of land reclaimed from the sea or lake. The submerged land is surrounded by an embankment and drained by pumping water into canals.

Q.29) Which of the following is/are NOT a way of "Chemical Weathering"?

- 1. Exfoliation
- 2. Solution
- 3. Hydration
- 4. Oxidation

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2, 3 and 4 only
- d) 1, 3 and 4 only

## ANS) A

**Explanation:** Chemical weathering is caused by rain water reacting with the mineral grains in rocks to form new minerals (clays) and soluble salts. These reactions occur particularly when the water is slightly acidic. There are different types of chemical weathering, the most important are:

- Solution removal of rock in solution by acidic rainwater. In particular, limestone is weathered by rainwater containing dissolved CO2, (this process is sometimes called carbonation).
- Hydrolysis the breakdown of rock by acidic water to produce clay and soluble salts.
- Oxidation the breakdown of rock by oxygen and water, often giving iron-rich rocks a rusty-colored weathered surface.



Q.30) Which of the following countries is/are sharing border with "Red Sea"?

- 1. Saudi Arabia
- 2. Egypt
- 3. Sudan
- 4. Israel
- 5. Djibouti

Select the correct answer using the code given below:

- a) 1, 2, 3 and 4 only
- b) 1, 3, 4 and 5 only
- c) 1, 2, 3 and 5 only
- d) 1, 2, 3, 4 and 5

## ANS) C

**Explanation: Red Sea runs between the two continents Africa and Asia**. It is a seawater inlet of the Indian Ocean. Four African countries border the Red Sea on the western side, while two Asian countries in east. The countries that border Red Sea are:

- **Egypt** to the west and north, and
- Sudan, Djibouti, and Eritrea to the west.
- Yemen and Saudi Arabia in East.

Q.31) Which of the following statements is/are correct about the "Solar System"?

- 1. All planets rotate around their axis in counter-clockwise motion.
- 2. Mars is often considered as Earth's twin because of their close proximity in size, mass and density
- Select the correct answer using the codes given below:
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

#### ANS) D

#### Explanation: The Solar System.

**Statement 1 is incorrect**: Prograde rotation indicates that the motion is in the same direction as the Sun's rotation. Retrograde rotation is in the opposite direction. **Most planets in our solar system, including Earth, rotate counter-clockwise or prograde direction, but Venus and Uranus are said to have a retrograde or clockwise rotation around their axis**. The tilt angle of a planet is measured relative to the orbital plane of the planet, and most planets' axes form an almost perpendicular angle to the orbital plane.

**Statement 2 is incorrect: Venus,** twice the distance away from the sun, is the next closest planet after Mercury. It is often **considered as Earth's twin** because of their close proximity in size, mass and density.

Q.32) The term "Oort Cloud" is related to which of the following?

- a) The Clouds over Antarctica
- b) Clouds form in Stratosphere
- c) Clouds form in Venus
- d) None

ANS) D



**Explanation:** The Oort cloud is the most distant region of our solar system. Even the nearest objects in the Oort cloud are thought to be many times farther from the Sun than the outer reaches of the Kuiper Belt. Unlike the orbits of the planets and the Kuiper Belt, which lie mostly in the same flat disk around the Sun, the **Oort cloud is believed to be a giant spherical shell surrounding the rest of the solar system**. It is like a big, thick-walled bubble made of icy pieces of space debris the sizes of mountains and sometimes larger. The Oort cloud might contain billions, or even trillions, of objects.

Q.33) Which of the following statements is/are correct about "Great and Small Circles"?

- 1. A Great Circle is any circle that circumnavigates the Earth and passes through the centre of the Earth.
- 2. Equator and all longitudes are great circles.
- 3. Circles which do not pass through the centre of the earth are the small circles.

Select the correct answer using the code given below:

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

## ANS) D

**Explanation: A Great Circle is any circle that circumnavigates the Earth and passes through the centre of the Earth**. A great circle always divides the Earth in half, thus the **Equator is a great circle (but no other latitudes) and all lines of longitude are great circles**. The shortest distance between any two points on the Earth lies along a great circle. **Circles which do not pass through the centre of the earth are the small circles**.

Q.34) Which of the following statements is/are correct about "Lithosphere or Crust"?

- 1. Crust is only 10% of the Earth's mass and contains all known life in the universe.
- 2. Continental lithosphere is slightly denser than Oceanic lithosphere.
- 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

#### ANS) D

**Explanation:** Lithosphere or Crust.

**Statement 1 is incorrect**: The crust is called Lithosphere because it is a sphere of solid rocks (LITHOS meaning stones or rocks). **Crust is only 1% of earths mass and contains all known life in the universe**.

**Statement 2 is incorrect**: There are two types of lithosphere: oceanic lithosphere and continental lithosphere. **Oceanic lithosphere is associated with oceanic crust, and is slightly denser than continental lithosphere**.

Q.35) Which of the following statements is/are NOT correct about "Block Mountains"?

- 1. The orogenic forces lead to the formation of Block Mountains.
- 2. Examples of Block Mountains are the Atlas, Zagros and Elburg mountains.

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

## ANS) C

**Explanation:** Block Mountains.

**Statement 1 is incorrect**: The forces of faulting, also known as **epeirogenic forces**, lead to the formation of Block Mountains.

Statement 2 is incorrect: Examples of Block Mountains are the Vosges (France) and the Black Forest Mountains in Europe. Salt Range of Pakistan and Sierra Nevada mountains of California, USA.

Atlas, Zagros and Elburg mountains are examples of Fold Mountains.

Q.36) Which of the following are causes of "Ocean Currents"?

- 1. Level of salinity
- 2. Temperature
- 3. The Earth's rotation
- 4. Earthquakes or storms
- Select the correct answer using the code given below:
- a) 1, 2 and 3 only
- b) 1, 3 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

#### ANS) D

**Explanation:** Surface currents in the ocean are driven by global wind systems that are fueled by energy from the sun. Patterns of surface currents are determined by **wind direction, Coriolis forces from the Earth's rotation**, and the **position of landforms** that interact with the currents. Surface wind-driven currents generate upwelling currents in conjunction with landforms, creating deepwater currents. Currents may also be caused by **density differences in water masses due to temperature (thermo) and salinity (haline) variations** via a process known as thermohaline circulation. These currents move water masses through the deep ocean—taking nutrients, oxygen, and heat with them. **Occasional events such as huge storms and underwater earthquakes can also trigger serious ocean currents**, moving masses of water inland when they reach shallow water and coastlines. Earthquakes may also trigger rapid downslope movement of water-saturated sediments, creating strong turbidity currents.

Q.37) Which of the following is/are NOT "Warm Ocean Current"?

- 1. The Gulf Stream
- 2. The North Atlantic Drift
- 3. The Labrador Current
- 4. The Oyashio Current

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 2 and 4 only
- c) 3 and 4 only
- d) 1 and 4 only

#### ANS) C

**Explanation:** Cold currents flow toward the equator on the eastern side of ocean basins. Examples of cold ocean currents include the **Canary Current in the North Atlantic, the California Current in the North Pacific, and the Benguela Current** in the South Atlantic.



Cold currents can also flow out of far northern regions. The Labrador Current flows out of Baffin Bay and past Labrador, the coastal part of the Canadian province of Newfoundland. The current carries icebergs from Baffin Bay, creating a hazard for ships in the North Atlantic. The Labrador Current meets the Gulf Stream off the coast of Newfoundland. When warm, moist air from the Gulf Stream blows over the cold Labrador Current, water vapor condenses. This results in some of the thickest fogs in the world. Two other important cold currents originate in northern regions. The East Greenland Current flows into the North Atlantic through the Strait of Denmark. The Oyashio Current flows through the Bering Strait between Siberia and Alaska and into the North Pacific.

**Q.38)** Arrange the following gases in the ascending order of their composition in the atmosphere?

- 1. Oxygen
- 2. Carbon Dioxide
- 3. Argon
- 4. Neon

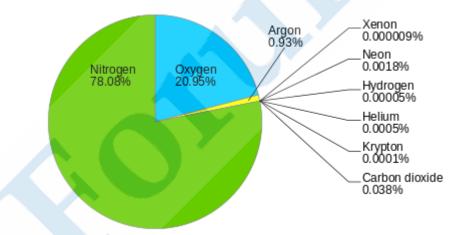
Select the correct answer using the code given below:

- a) 3-4-2-1
- b) 4-2-3-1
- c) 4-3-2-1
- d) 3-2-4-1

#### ANS: B

Explanation: Atmospheric composition (by volume, dry air):

- Major : 78.08% Nitrogen (N2), 20.95% Oxygen (O2),
- Minor (ppm): Argon (Ar) 9340; Carbon Dioxide (CO2) 410, Neon (Ne) 18.18; Helium (He) - 5.24; CH4 - 1.7; Krypton (Kr) - 1.14; Hydrogen (H2) - 0.55.



Q.39) Which of the following statements is/are correct about "Mesosphere"?

- 1. The Aurora Borealis in the Northern Hemisphere and Aurora Australis in the Southern Hemisphere forms in Mesosphere.
- 2. "Noctilucent clouds" sometime form in the mesosphere near the poles.

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



#### ANS) B

Explanation: Mesosphere.

**Statement 1 is incorrect**: The Aurora Borealis in the Northern Hemisphere and Aurora Australis in the Southern Hemisphere forms in **Ionosphere**.

**Statement 2 is correct**: Very strange, high altitude clouds called "**noctilucent clouds**" or "polar mesospheric clouds" sometime form in the mesosphere near the poles. These peculiar clouds form much, much higher up than other types of clouds.

#### Q.40) Which of the following is/are hot local winds?

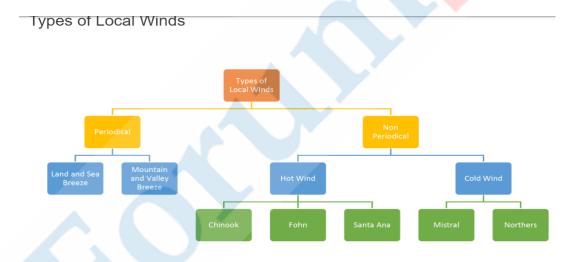
- 1. Chinook
- 2. Fohn
- 3. Santa Ana
- 4. Mistral

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 1, 2 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

## ANS) A

**Explanation:** Local Winds are produced due to local variability in temperature and pressure conditions. Thus, they are more localized in their extent and cover limited horizontal and vertical dimensions and confined to the lower levels of the troposphere.





## Environment

Q.1) Consider the following statements with respect to "Sri Venkateswara Zoological Park":

- 1. Sri Venkateswara Zoological Park is located in Tamil Nadu State.
- 2. Sri Venkateswara Zoological Park is developed on mythological themes of Ramayana, Mahabharata, Puranas, Vedas and Upanishads.

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

#### Ans) B

**Explanation: Statement 1 is incorrect**: Sri Venkateswara Zoological Park has been established on modern concepts of Zoo Management wherein the animals are exhibited in wider and near natural enclosures resembling to their natural habitat. The Park is named after "Sri Venkateswara" the Lord of Seven Hills in Tirupati, Andhra Pradesh.

**Statement 2 is correct**: Sri Venkateswara Zoological Park is developed on Mythological theme. It highlights the role of wild animals in Mythology, ancient texts like the epics of Ramayana, Mahabharata, Puranas, Vedas and Upanishads. The message of nature conservation with all its diversity is conveyed emphasizing the role of animal and plant life in Indian culture. Depiction of Matsya, Kurma, Varaha, Narasimha avatharas which are the incarnations of Lord Vishnu at the entrance of the Zoo makes the visitor aware of the mythological theme in which the zoo is developed.

#### Q.2) "Project REGENERATE" is related to which of the following?

- a) Renewable energy production by least developed countries.
- b) Conservation of Mangroves.
- c) Conservation of Coral Reefs.
- d) Conservation of Soil.

#### Ans) C

**Explanation:** Recognising that sound coastal resource management is critical to sustainable development and climate adaptation, the Government of Maldives is developing and implementing policies to protect coral reefs and support marine management. Project REGENERATE is generously funded by the United States Agency for International Development (USAID) and works towards building capacity for marine management and climate change adaptation of ecosystems, local communities and government in the Maldives.

Q.3) Which of the following is/are objectives of "Wild Life Protection Act, 1972"?

- 1. Prohibition of hunting
- 2. Establishment of protected areas
- 3. Prohibition of taxidermy
- 4. Management of Zoos
- Choose the correct answer from the code given below:
- a) 1, 2 and 3 only
- b) 1, 2, and 4 only



c) 2, 3 and 4 only

d) 1, 2, 3 and 4

#### Ans) D

**Explanation:** India has been implementing various laws to save the wildlife and the Wildlife Protection Act 1972 is one of them. THE OBJECTIVES ARE AS FOLLOWS:

- Prohibition of hunting ٠
- Protection and management of wildlife habitats •
- Establishment of protected areas
- Regulation and control of trade in parts and products derived from wildlife
- Management of zoos
- WLPA is also against taxidermy, which is the preservation of a dead wild animal as a trophy, or in the form of rugs, preserved skins, antlers, horns, eggs, teeth, and nails.

Q.4) Which of the following statements is/are NOT correct about "Transformative Carbon Asset Facility (TCAF)"?

- 1. TCAF supports developing countries in planning, implementing, and scaling up their Nationally Determined Contributions (NDCs) to accelerate the transition to low-carbon economies.
- 2. TCAF is funded by World Bank's Climate Change Fund Management Unit.

Select the correct answer from the code given below:

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

#### Ans) D

Explanation: Statement 1 is correct: Transformative Carbon Asset Facility (TCAF) is an international finance facility piloting innovative, results-based carbon market mechanism under Article 6 of Paris Climate Change agreement. TCAF supports developing countries in planning, implementing, and scaling up their Nationally Determined Contributions (NDCs) to accelerate the transition to low-carbon economies. As well, TCAF helps shape international carbon markets for the post-Kyoto era.

Statement 2 is correct: World Bank's Climate Change Fund Management Unit is home to climate finance initiatives that deliver innovative and scalable climate and environmental action. Unit funds Transformative Carbon Asset Facility (TCAF) to help shape environmental, energy, and climate change policy to reach meaningful scale and create a lasting, transformative social impact.

**Q.5) "Rajbari National Park"** is located in which of the following state?

- a) Maharashtra
- b) Mizoram
- c) Jharkhand
- d) Tripura

#### Ans) D

**Explanation:** Bison (Rajbari) National Park is located in the Trishna Wildlife Sanctuary in Tripura, and is one of the most popular National Parks in India. Spread over an area of 31.63 square kilometers, the Bison National Park is rich in its biodiversity. The picturesque surroundings and the wide array of wildlife species make the Bison (Rajbari) National Park in Tripura a major wildlife travel destination in India. At the Bison National Park, you will

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be able to spot different wild animal species such as Indian Gaur (bison), Golden langurs, deer, Pheasants and other rare wildlife species.

**Q.6)** With reference to the "**Gir National Park and Wildlife Sanctuary**", which of the following statements is/are correct?

- 1. Asiatic lion is found only in the Gir National park and Sanctuary.
- 2. Maldharis are religious pastoral communities living in the Gir National Park and Sanctuary.

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

#### Ans) C

Explanation: Gir National Park and Wildlife Sanctuary.

**Statement 1 is correct**: Gir forests of Gujarat (India) are **the only place** where this race of lion's i.e. Asiatic lion is found in its natural habitat.

Statement 2 is correct: "Maldharis" are who have survived through the ages by having symbiotic relationship with the lion. They are religious pastoral communities living in Gir. Their settlements are called "nesses".

Q.7) Consider the following bio-geo-chemical cycles:

- 1. Phosphorous cycle
- 2. Nitrogen cycle
- 3. Sulphur cycle

Which of the above comes under Sedimentary bio-geo-chemical cycle?

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

#### Ans) C

**Explanation:** Biogeochemical cycles can be classed as gaseous, in which the reservoir is the air or the oceans (via evaporation), and **sedimentary**, in which the reservoir is the **Earth's crust**. Gaseous cycles include those of nitrogen, oxygen, carbon, and water; sedimentary cycles include those of iron, calcium, phosphorus, sulphur and other more earthbound elements.

**Q.8)** Consider the following protected areas:

- 1. Kanha
- 2. Panna
- 3. Satpuda
- 4. Sanjay

Which of the above Tiger reserves are located in Madhya Pradesh?

- a) 1, 2 and 3 only
- b) 1, 2 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

Ans) D



**Explanation:** Madhya Pradesh is also known as the '**Tiger State**' as it harbors **nearly 20%** of India's Wild Tiger Population and nearly 10% of the world's tiger population as per the current estimates. The six Tiger Reserves in MP are:

- Kanha Tiger Reserve
- Pench Tiger Reserve
- Panna Tiger Reserve
- Bandhavgarh Tiger Reserve
- Satpuda Tiger Reserve
- Sanjay Tiger Reserve

**Q.9)** Which of the following statements is/are correct about the temperate deciduous forests?

- 1. They are found between the Polar Regions and the tropics.
- 2. Temperate deciduous forests have four seasons.

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

## Ans) C

**Explanation:** temperate deciduous forests.

Statement 1 is correct: Temperate deciduous forests are located in the mid-latitude areas which means that they are found between the Polar Regions and the tropics. Statement 2 is correct: Temperate deciduous forests are most notable because they go through four seasons. Leaves change color in autumn, fall off in the winter, and grow back in the spring; this adaptation allows plants to survive cold winters.

**Q.10)** Consider the following:

- 1. Carbon dioxide
- 2. Methane
- 3. Nitrous oxide
- 4. Sulphur dioxide

Which of the above gases are released into the atmosphere due to burning of crop residues? a) 1, 2 and 3 only

- b) 2, 3 and 4 only
- c) 1, 2, 3 and 4
- d) 3 and 4 only

#### Ans) C

**Explanation:** Burning of crop residues emits traces of **carbon dioxide, methane, carbon monoxide, nitrous oxide, sulphur dioxide and particulates** which affect human health. It is estimated that India annually emits 1,44,719 mg of total particulate matter from open burning of stubble.

**Q.11)** With reference to the '**Kaziranga National Park**', which of the following statements is/are **NOT** correct?

- 1. It was formed in 1908 on the recommendation of Mary Curzon.
- 2. Park is located in the edge of the Eastern Himalayan biodiversity hotspots Golaghat and Nagaon district.
- 3. The park was declared as a World Heritage Site by UNESCO in 1985.

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Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) None

#### ANS) D

**Explanation:** One of the most sought after wildlife holiday destinations in India, Kaziranga National park's 430 square kilometer area sprinkled with elephant-grassy meadows, swampy lagoons, and dense forests is home to more than 2200 Indian one-horned rhinoceros, approximately 2/3rd of their total world population. Formed in 1908 on the recommendation of Mary Curzon, the park is located in the edge of the Eastern Himalayan biodiversity hotspots – Golaghat and Nagaon district. In the year 1985, the park was declared as a World Heritage Site by UNESCO.

Q.12) Which of the following countries is/are part of coral triangle?

- 1. Indonesia
- 2. Australia
- 3. Malaysia
- 4. The Philippines

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 1, 3 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4 only

#### ANS) B

**Explanation:** The Coral Triangle is one of the most important reef systems in the world. It covers 132,636 km across six countries; Indonesia, Malaysia, Papua New Guinea, the Philippines, the Solomon Islands and Timor-Leste. It occupies just 1.5% of the world's total ocean area, but represents 30% of the world's coral reefs.

Q.13) The term 'Morges Manifesto' is related to which of the following?

- a) UNEP
- b) UNFCCC
- c) World Wide Fund for Nature (WWF)
- d) Global environment facility

#### ANS) C

**Explanation: WWF** came into existence on 29 April 1961, when a small group of passionate and committed individuals signed a declaration that came to be known as the **Morges Manifesto**.

Q.14) Which of the following statements is/are correct about "Autotrophs"?

1. Autotrophs form the base of an ecosystem's energy pyramid.

2. Green algae, archaebacteria and plants are the examples of Autotrophs.

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



#### ANS) C

#### **Explanation:** Autotrophs.

**Statement 1 is correct**: Autotrophs are organisms that can produce their own food, using materials from inorganic sources. The word "autotroph" comes from the root words "auto" for "self" and "troph" for "food." **They form the base of an ecosystem's energy pyramid**, and provide the fuel that all the heterotrophs (organisms that must get their food from others) need to exist.

Statement 2 is correct: Plants, Green algaes, and bacteria or archaebacteria are the examples of autotrophs.

Q.15) "Faith for Earth" initiative is launched by which of the following?

- a) UNEP
- b) IUCN
- c) UNFCCC
- d) World Bank

#### ANS) A

**Explanation:** Following a series of initiatives and conventions organized in partnership with faith-based organizations, **UN Environment launched the Faith for Earth Initiative in November 2017**. The goal of Faith for Earth is to strategically engage with faith-based organizations and partner with them to collectively achieve the Sustainable Development Goals (SDG) and fulfill the objectives of the 2030 Agenda. Faith for Earth has three main goals: to inspire and empower faith organizations and their leaders to advocate for protecting the environment, to green faith-based organizations' investments and assets to support the implementation of SDGs, and to provide them with knowledge and networks to enable their leaders to effectively communicate with decision-makers and the public.

**Q.16)** With reference to the "**Ganga Action Plan (GAP)**", which of the following statements is/are correct?

- 1. It was launched by Indira Gandhi in 1981.
- 2. Resource recovery options like production of methane for energy generation is the objective of GAP.

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

#### ANS) B

**Explanation:** The Ganga action plan was, launched by Shri Rajeev Gandhi, the then Prime Minister of India on 14 Jan. 1986 with the main objective of pollution abatement, to improve the water quality by Interception, Diversion and treatment of domestic sewage and present toxic and industrial chemical wastes from identified grossly polluting units entering in to the river. The other objectives of the Ganga Action Plan are as under.

- Control of non-point pollution from agricultural runoff, human defecation, cattle wallowing and throwing of un-burnt and half burnt bodies into the river.
- Research and Development to conserve the biotic, diversity of the river to augment its productivity.
- New technology of sewage treatment like Up-flow Anaerobic Sludge Blanket (UASB) and sewage treatment through afforestation has been successfully developed.



- Rehabilitation of soft-shelled turtles for pollution abatement of river have been demonstrated and found useful.
- Resource recovery options like production of methane for energy generation and use of aquaculture for revenue generation have been demonstrated.
- To act as trend setter for taking up similar action plans in other grossly polluted stretches in other rivers.

## Q.17) "One Number- One Colour-One Description" is related to which of the following?

- a) Water Pollution
- b) Air Pollution
- c) Noise Pollution
- d) All of the above

## ANS) B

**Explanation:** The Minister for Environment, Forests & Climate Change launched The National **Air Quality Index' (AQI)** in New Delhi. The Air Quality Index is considered as **'One Number- One Colour-One Description'** for the common man to judge the air quality within his vicinity.

Q.18) "Mobile Phone Partnership Initiative (MPPI)" is related to which of the following convention?

- a) Stockholm Convention
- b) Rotterdam Convention
- c) Vienna Convention
- d) Basel Convention

#### ANS) D

**Explanation:** The total mass of all mobile phones produced worldwide is tens of thousands of tonnes per year, and accessories represent tens of thousands of tonnes more. Also, the fastest-growing markets for new and used mobile phones are in many developing countries. The result of that growth is waste when such phones reach the end of their lives. The issue of wastes from discarded mobile phones is, therefore, a significant one due to their sheer quantity globally and the possibility of pollution as well as the loss of valuable resources. In 2002 the Mobile Phone Partnership Initiative (MPPI) was launched, when the sixth meeting of the Conference of the Parties to the Basel Convention established a working group consisting of experts from Parties and Signatories interested in a sustainable partnership on the environmentally sound management of end-of-life mobile telephones as well as representatives of mobile phone manufacturers and the Secretariat of the Basel Convention.

Q.19) "Chirang- Ripu Elephant Reserve" is located in which of the following state?

- a) Arunachal Pradesh
- b) Assam
- c) Manipur
- d) Mizoram

#### ANS) B

**Explanation:** Ripu and Chirang are vital habitats that serve as a corridor linking Manas National Park, Assam with Buxa in West Bengal, and also the forests of Bhutan, especially important for Asian Elephants Elaphas maximus. These forests are already part of the **Chirang- Ripu Elephant Reserve of Assam**.



## **Q.20)** Which of the following statements is/are correct about "**BioCarbon Fund Initiative** for Sustainable Forest Landscape"?

- 1. It is a multilateral fund supported by donor governments.
- 2. It promotes reducing greenhouse gas emissions from the land sector, from deforestation and forest degradation in developing countries (REDD+).

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

## ANS) C

**Explanation:** BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL). Statement 1 is correct: The BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL) is a multilateral fund, supported by donor governments and managed by the World Bank.

Statement 2 is correct: It promotes reducing greenhouse gas emissions from the land sector, from deforestation and forest degradation in developing countries (REDD+), and from sustainable agriculture, as well as smarter land-use planning, policies and practices.

## Q.21) Which of the following schemes/programmes is/are subsumed under "National Programme for Conservation of Aquatic Eco-system (NPCA)"?

- 1. National Wetland Conservation Programme (NWCP).
- 2. National Lake Conservation Plan (NLCP).
- 3. National River Conservation Plan (NRCP).

Select the correct answer using the code given below:

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

#### ANS) B

**Explanation:** The **National Wetland Conservation Programme (NWCP)** has been merged in February, 2013 with another scheme of **National Lake Conservation Plan (NLCP)** to avoid overlap and promote better synergy into a new integrated scheme of **National Programme for Conservation of Aquatic Eco-system (NPCA)**. NPCA aims at holistic conservation and restoration of wetlands and lakes for achieving the desired water quality enhancement, besides improvement in biodiversity and ecosystems through an integrated and multidisciplinary approach and a common regulatory framework.

Q.22) The "MOSAIC" initiative is related to which of the following?

- a) Off-shore Wind Energy
- b) Deep Sea minerals
- c) Marine observation
- d) None

#### ANS) C

**Explanation:** The INCOIS will set up a **Marine Observation System Along Indian Coast** (**MOSAIC**). It will have at least six observatories — three each along the east and west coast. In addition, a network of automated, moored buoys will monitor the **quality of the coastal** 



**waters** and collect other parameters that help sustain fisheries in the region and relay the information to the observatories.

Q.23) The term "Sea Sparkle or Sea tinkle" is related to which of the following?

- a) Chlorophyta algae
- b) Rhodophyta algae
- c) Xanthophyta algae
- d) Noctiluca algae

#### ANS) D

**Explanation:** The **Noctiluca algae**, commonly known as **sea tinkle**, are a parasite and occur in patches or 'blooms' in the Northern Arabian Sea. They glow at night due bioluminescence, and have earned them the **nickname 'sea sparkle'**.

**Q.24)** Which of the following Acts/Regulations have been enacted by India for "conservation of the coastal and marine environment"?

- 1. Coastal Regulation Zone Notification, 1991.
- 2. Environment (Protection) Act, 1986.
- 3. Wildlife (Protection) Act 1972.
- 4. National Biodiversity Act, 2002.
- Select the correct answer using the code given below:
- a) 1, 2 and 4 only
- b) 2, 3 and 4 only
- c) 1, 2 and 3 only
- d) 1, 2, 3 and 4

#### ANS) D

**Explanation:** The Marine Protected Area Network is a tool for managing natural marine resources for biodiversity conservation and for the well-being of people dependent on the resources. The **Coastal Regulation Zone Notification**, 1991, National Biodiversity Act, 2002 and the Environment (Protection) Act, 1986 have been enacted by India for conservation of the coastal and marine environment along with the Wildlife (Protection) Act 1972, which also provides for establishment of wildlife protected areas (PAs) by state governments.

Q.25) Which of the following statements is/are correct about "Mangroves"?

- 1. All coastal states of India have Mangrove forest cover.
- 2. The Sundarbans mangroves, located in the Bay of Bengal were the first mangroves in the world to be put under scientific management.

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

#### ANS: C

#### Explanation: Mangroves.

**Statement 1 is correct**: The State/UT wise extent of mangrove cover in the three canopy density classes is presented in the given below Table



	(area in sq km					
S.No.	State/UT	Very Dense Mangrove	Moderately Dense Mangrove	Open Mangrove	Total	Change with respect to ISFR 2017
1.	Andhra Pradesh	0.00	213.00	191.00	404.00	0.00
2.	Goa	0.00	20.00	6.00	26.00	0.00
3.	Gujarat	0.00	169.00	1,008.00	1,177.00	37.00
4.	Karnataka	0.00	2.00	8.00	10.00	0.00
5.	Kerala	0.00	5.00	4.00	9.00	0.00
6.	Maharashtra	0.00	88.00	232.00	320.00	16.00
7.	Odisha	81.00	94.00	76.00	251.00	8.00
8.	Tamil Nadu	1.00	27.00	17.00	45.00	-4.00
9.	West Bengal	996.00	692.00	424.00	2,112.00	-2.00
10.	A&N Islands	398.00	169.00	49.00	616.00	-1.00
11.	Daman & Diu	0.00	0.00	3.00	3.00	0.00
12.	Puducherry	0.00	0.00	2.00	2.00	0.00
Total		1,476.00	1,479.00	2,020.00	4,975.00	54.00

#### TABLE 3.1 Mangrove Cover Assessment 2019

Statement 2 is correct: India has a long tradition of mangrove forest management. The Sundarbans mangroves, located in the Bay of Bengal (partly in India and partly in Bangladesh), were the first mangroves in the world to be put under scientific management. The area's first management plan was implemented in 1892.

Q.26) The term "PARIVESH" is related to which of the following?

- a) Integrated Environmental Management System
- b) Wild life protection
- c) Conservation Agriculture
- d) None

#### ANS) A

**Explanation: PARIVESH** is a web based, role based workflow application which has been developed for online submission and monitoring of the proposals submitted by the proponents for seeking Environment, Forest, Wildlife and CRZ Clearances from Central, State and district level authorities. It automates the entire tracking of proposals which includes online submission of a new proposal, editing/updating the details of proposals and displays status of the proposals at each stage of the workflow.

Q.27) "Nagzira Tiger Reserve" is located in which of the following state?

- a) Madhya Pradesh
- b) Karnataka
- c) Maharashtra
- d) Chhattisgarh

#### ANS) C

**Explanation:** Navegaon Nagzira Tiger Reserve (NNTR) is located **in North East of Maharashtra state in Western India region**. It is **close from Nagpur city** of state. It was declared as a 46th tiger reserve of India on 12/Dec/2013. It is spread over two districts of Maharashtra i.e. Gondia district and Bhandara district. Its total area is 1894.944 sq. kms which is divided between core area and buffer area.

**Q.28)** With reference to the "**Energy Service Companies (ESCOs)**", which of the following statements is/are correct?



- 1. ESCO is a company that offers energy infrastructure outsourcing, power generation and energy supply, financing or assist Facility's Owners in arranging finances for energy efficiency projects.
- 2. ESCO operates by providing a savings guarantee, risk management in the implementation of the energy efficiency projects.

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

#### ANS) C

**Explanation:** Energy Service Companies (ESCOs).

**Statement 1 is correct**: Energy Service Companies (ESCOs) is a company that **offers energy services, usually design, retrofitting and implementation of energy efficiency projects** after identifying energy saving opportunities through energy audit of existing facilities. It also includes energy infrastructure outsourcing, **power generation and energy supply, financing or assist Facility's Owners in arranging finances for energy efficiency projects**.

Statement 2 is correct: ESCOs operates by providing a savings guarantee, risk management in the implementation of the energy efficiency projects and also performs measurement & verification (M&V) activities to quantify actual energy savings post implementation of energy efficiency projects etc.

Q.29) Which of the following is the "non-human beneficiary" of MGNREGA scheme?

- a) Indian Gazelle
- b) Capped Langur
- c) Golden Langur
- d) Four horned antelope

#### ANS) C

Explanation: For the first time since it became law in 2005, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) will have non-human beneficiaries — the rare golden langur (Trachypithecus geei) in a reserve forest in western Assam's Bongaigaon district. The district authorities launched a ₹27.24-lakh project under the MGNREGA to plant guava, mango, blackberry and other fruit trees to ensure that the resident golden langurs of the 17 sq.km. Kakoijana Reserve Forest does not have to risk their lives to find food.

**Q.30)** Which of the following statements is/are correct about "**Seagrass Meadows**" in India? 1. It is found in most of the coastal states.

2. It is one of the most productive ecosystems of the world.

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

ANS) B Explanation: Seagrass Meadows.



Statement 1 is incorrect: The major seagrass meadows in India exist along the southeast coast (Gulf of Mannar and Palk Bay) and in the lagoons of islands from Lakshadweep in the Arabian Sea to Andaman and Nicobar in the Bay of Bengal. The Tamil Nadu (southeast) coast harbours all 14 species, while 8 and 9 species have been reported from Lakshadweep and Andaman-Nicobar groups of islands, respectively. The mainland east coast supports more species than the west coast of India.

**Statement 2 is correct**: Dense seagrass growth traps flowing sediment and nutrients, and creates a world where life can thrive. **Seagrasses form the basis of one of the most productive ecosystems of the world, providing food and shelter to a diverse community of animals**. The leafy canopies support a bewildering diversity of tiny plants that grow as epiphytes (like moss on trees) and small marine invertebrates, which in turn attract sea anemones and fish, and mega herbivores like green sea turtles and dugongs. The seagrass meadows with their extensive rhizome and root systems, and leaf growth and ssepiphytic growth together accumulate a huge amount of biomass.

Q.31) Which of the following statements is/are correct about "National Parks" in India?

- 1. National Park is defined by state government via notification.
- 2. The state government can fix and alter boundaries of the National Parks with prior consultation and approval from Environmental Ministry.
- 3. No human activity is permitted inside the national park except for the ones permitted by the Chief Wildlife Warden of the state.

Select the correct answer using the codes given below:

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

#### ANS) C

**Explanation:** National Parks in India.

**Statement 1 is correct**: National Park is **defined by state government via notification**. There is no need to pass legislation (act) by the state assembly to declare a National Park. **Statement 2 is incorrect**: The state government can fix and alter boundaries of the National Parks with prior consultation **and approval with National Board of Wildlife**.

**Statement 3 is correct: No human activity is permitted inside** the national park except for the ones permitted by the **Chief Wildlife Warden of the state** under the conditions given in CHAPTER IV, WPA 1972.

Q.32) Which of the following state/states have "Community Reserves" in India?

- 1. Punjab
- 2. Andhra Pradesh
- 3. Himachal Pradesh
- 4. Meghalaya

Select the correct answer using the code given below:

- a) 1, 3 and 4 only
- b) 1 and 4 only
- c) 3 and 4 only
- d) 1, 2, 3 and 4

#### ANS) B

**Explanation:** Conservation reserves and community reserves in India are terms denoting protected areas of India which typically act as buffer zones to or connectors and migration



corridors between established national parks, wildlife sanctuaries and reserved and protected forests of India. Such areas are designated as conservation areas if they are uninhabited and completely owned by the Government of India but used for subsistence by communities and community areas if parts of the lands are privately owned. These protected area categories were first introduced in the Wildlife (Protection) Amendment Act of 2002 – the amendment to the Wildlife Protection Act of 1972.

There are 163 existing Community Reserves in India covering an area of 833.34 km2, which is 0.03% of the geographical area of the country (National Wildlife Database, March. 2020).

Name of State & Unior Territory	<sup>1</sup> State Area (km²)	No. of Community Reserve	Area (km²)	% of State Area				
Karnataka	1,91,791	1	3.12	0.002				
Kerala	3,88,63	1	1.50	0.004				
Meghalaya	22,429	65	136.97	0.610				
Nagaland	16,579	93	662.73	3.997				
Punjab	50,362	3	29.02	0.058				
	TOTAL	163	833.34	0.03				

State-wise break up of Community Reserves:

Q.33) Which of the following statements is/are correct about "SoiLEX"?

1. It is a global database on different types of soils.

2. It is a joint initiative of FAO and UNEP.

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

#### ANS) D

**Explanation:** The **Global Soil Partnership** (FAO) is currently developing a new tool, SoiLEX, a **global database on national legislation on soil protection, conservation and restoration to facilitate access to information on the existing legal instruments in force and bridge the gap between the various soil stakeholders**. The online platform will facilitate the search for national soil legal instruments, the understanding of the different legal areas relevant to soil management and protection, as well as the exchange of experiences in soil governance between countries and regions.

**Q.34)** Which of the following statements is/are correct about "**Key Biodiversity Areas** (**KBA**)"?

- 1. Key Biodiversity Areas (KBA) are 'sites contributing significantly to the global persistence of biodiversity', in terrestrial, freshwater and marine ecosystems.
- 2. The Global Standard for the Identification of Key Biodiversity Areas (IUCN 2016) sets out globally agreed criteria for the identification of KBAs worldwide.

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

ANS) C



Explanation: Key Biodiversity Areas (KBA) are 'sites contributing significantly to the global persistence of biodiversity', in terrestrial, freshwater and marine ecosystems. The Global Standard for the Identification of Key Biodiversity Areas (IUCN 2016) sets out globally agreed criteria for the identification of KBAs worldwide. Sites qualify as global KBAs if they meet one or more of 11 criteria, clustered into five categories: threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and, irreplaceability. The KBA criteria can be applied to species and ecosystems in terrestrial, inland water and marine environments. Although not all KBA criteria may be relevant to all elements of biodiversity, the thresholds associated with each of the criteria may be applied across all taxonomic groups (other than micro-organisms) and ecosystems.

Q.35) Which of the following specie/Species is/are covered under "Schedule 1 of Indian Wildlife (Protection Act), 1972"?

- 1. Great Indian Bustard
- 2. Lesser Florican
- 3. Falcons

Select the correct answer using the code given below:

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

#### ANS) B

**Explanation:** Over the last 50 years the population of the Great Indian Bustard has recorded a decline of over 82 per cent, falling from an estimated 1260 in 1969, to 100-150 in 2018. Similarly, the population of the Lesser Florican has also witnessed a sharp decline of 80 per cent over the past few decades, from 3530 individuals recorded in 1999, to less than 700 individuals in 2018. Both these **birds are facing the threat of imminent extinction in spite of the highest level of protection under the Schedule one (I) Wild Life (Protection) Act, 1972.** 

Falcons covered under Schedule (IV) Wild life (Protection) Act, 1972.

Q.36) Which of the following plant(s) is/are "Predator plants"?

- 1. Sundews
- 2. Sarracenia
- 3. Butterworts
- Select the correct answer using the code given below:
- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 1, 2 and 3

#### ANS) D

**Explanation:** Carnivorous plants are usually categorized based on the way they catch the insects. There are wide varieties of common predator plants — **pitcher plants, sundews, sarracenia, Venus fly trap and butterworts**.

Q.37) The term "Drypetes kalamii" is related to which of the following?

a) Bio-fuel plant

b) Insectivorous plant



c) Flowering plant

d) None

#### ANS) C

**Explanation:** A team of botanists has discovered a new species of **a flowering plant** in the northern hilly forests of West Bengal. This new species belongs to a **genus called Drypetes that globally comprises about 220 species, and is distributed chiefly in the tropical and subtropical regions of Asia and Africa. "Named Drypetes kalamii after the late Indian president APJ Abdul Kalam, it is a herb, having separate male and female plants**". In India, about 20 species of Drypetes are found. However, this newly found species of Drypetes is unique among them because of its shrubby nature, scrambling life-form and prominent modified leaf structures. The plant produces clusters of greenish and pale-yellow flowers with orange-red and red fruits. Such red fruits easily attract birds, which disperse the seeds far and wide. The new plant belongs to the same group of plants that include Putranjiva roxburghii. Since the new plant is a close relative of such medicinal plants, it might also possess some medicinal properties.

Q.38) Which of the following statements is/are correct about "Gahirmatha Sanctuary"?

- 1. It is the lone mass nesting spot in Indian Ocean region and the only turtle sanctuary in Odisha.
- 2. It is the world's largest nesting beach of Olive Ridley Sea Turtles.
- 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

#### ANS) C

#### **Explanation:** Gahirmatha Sanctuary.

Statement 1 is correct: Gahirmatha is the lone mass nesting spot in Indian Ocean region and the only turtle sanctuary in Odisha. The Olive Ridley turtles travel across the South Pacific to breed on the coast of Gahirmatha. Millions of Olive Ridley turtles visit the beach during mass nesting every year.

**Statement 2 is correct**: Olive Ridley turtles get their name from the coloring of their heartshaped shell. It starts out gray but changes to olive green when the turtles turn adults. **It is an ideal destination because it is the world's largest nesting beach of Olive Ridley Sea Turtles**.

Q.39) The term "Blue Carbon" is related to which of the following?

- a) Soil organic matter
- b) Poly metallic nodules
- c) Carbon capture
- d) None

#### ANS) C

**Explanation: Blue carbon** is simply the term for **carbon captured** by the world's ocean and coastal ecosystems. Sea grasses, mangroves, and salt marshes along our coast "capture and hold" carbon, acting as something called a carbon sink. These coastal systems, though much smaller in size than the planet's forests, sequester this carbon at a much faster rate, and can continue to do so for millions of years. Most of the carbon taken up by these



ecosystems is stored below ground where we can't see it, but it is still there. The carbon found in coastal soil is often thousands of years old!

#### Q.40) The "Clean Seas Campaign" is launched by which of the following?

- a) United Nations Environment Programme (UNEP)
- b) International Union for Conservation of Nature (IUCN)
- c) World Economic Forum (WEF)
- d) Both A and B

## ANS) A

**Explanation: UN Environment launched Clean Seas** (#CleanSeas on social media) in February 2017, with the aim of engaging governments, the general public and the private sector in the fight against marine plastic pollution. Over the next five years, we will address the root-cause of marine litter by targeting the production and consumption of non-recoverable and single-use plastic. To do this effectively, we need citizens to be aware, engaged and active in addressing the problem in their daily lives and beyond.



## Economy

**Q.1) "CAMELS"** is a technique for evaluating and rating the operations and performance of which of the following?

- a) Banks
- b) Trade Market
- c) Capital Market
- d) Insurance companies

#### Ans) A

**Explanation:** Acronym derived from the terms capital adequacy (C), asset quality (A), management (M), earnings (E), liquidity (L) and systems for control (S). The acronym is used as a technique for evaluating and rating the operations and performance of banks all over the world.

Q.2) Consider the following statements with respect to "Debt Recovery Tribunal (DRT)":

- 1. DRTs were created to facilitate the speedy recovery of debt payable to banks and other financial institutions by their customers.
- 2. DRTs were set up after the passing of SARFAESI Act, 2002.

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

#### Ans) A

**Explanation: Statement 1 is correct**: Debt Recovery Tribunals also known as DRTs were created to facilitate the speedy recovery of debt payable to banks and other financial institutions by their customers. The banks and financial institutions had been facing problems in recovery of loans advanced by them to individual people or business entities. Due to this, the banks and financial institutions started restraining themselves from advancing out loans. There was a need to have an effective system to recover the money from the borrower.

**Statement 2 is incorrect**: DRTs was set up after the passing of Recovery of Debts due to Banks and Financial Institutions Act (RDBBFI), 1993.

Q.3) Which of the following Statement is NOT correct about "ENGEL's LAW"?

- 1. Law says that people spend a larger part of their budget on food as their income rises.
- 2. Law says that people spend a smaller part of their budget on luxury items as their income rises.

Select the correct answer from the code given below:

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

#### Ans) C

**Explanation:** Engel's Law is an economic theory introduced in 1857 by Ernst Engel, a German statistician, stating that the percentage of income allocated for food purchases

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decreases as income rises. As a household's income increases, the percentage of income spent on food decreases while the proportion spent on other goods (such as luxury goods) increases.

## **Q.4)** In economics, **"Fisher effect"** is the relationship between which of the following variables?

- a) Income & Inequality
- b) Growth & Inflation
- c) Trade & Development
- d) Inflation & Interest rate

## Ans) D

**Explanation:** A concept developed by Irving Fisher (1867–1947) which shows relationship between inflation and the interest rate, expressed by an equation popular as the fisher equation, i.e., the nominal interest rate on a loan is the sum of the real interest rate and the rate of inflation expected over the duration of the loan: R = r + F; where R = nominal interest rate, r = real interest rate and F = rate of annual inflation.

Q.5) Consider the following statements with respect to "Local Area Banks (LABs)":

- 1. LABs were created to bridge the gaps in credit availability and enhance the institutional credit framework in the rural and semi-urban areas.
- 2. The minimum start-up capital of a Local Area Bank was fixed at Rs.5crore.

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

## Ans) C

**Explanation: Statement 1 is correct**: In 1996 it was decided to allow the establishment of local banks in the private sector. These banks were expected to bridge the gaps in credit availability and enhance the institutional credit framework in the rural and semi-urban areas and provide efficient and competitive financial intermediation services in their area of operation.

**Statement 2 is correct**: The minimum start-up capital of a LAB was fixed at Rs.5crore. The promoters of these banks were required to bring in the entire minimum share capital up-front. It was also decided that a family among the promoter group could hold equity not exceeding 40% of the capital. The NRI contributions to the equity of the bank were not to exceed 40% of the paid-up capital.

Q.6) Which of the following statements is/are NOT correct about "Quantitative Easing"?

1. It is a conventional monetary policy of a Central Bank.

2. It led to increase in the interest rates.

Select the correct answer from the code given below:

a) 1 only

b) 2 only

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

**Ans) C Explanation:** "Quantitative Easing".



**Statement 1 is incorrect**: Quantitative easing (QE) is a form of **unconventional monetary policy** of a central bank.

**Statement 2 is incorrect**: In Quantitative Easing central bank purchases longerterm securities from the open market in order to increase the money supply and encourage lending and investment. Buying these securities adds new money to the economy, and also **serves to lower interest rates** by bidding up fixed-income securities.

Q.7) Consider the following statements with respect to "Financial Stability Development Council (FSDC)":

- 1. FSDC is an apex level forum set up by Government of India in 2010.
- 2. Niti Aayog chairman is also the member of FSDC.
- 3. Council monitors macro prudential supervision of the economy, including functioning of large financial conglomerates.

Which of the statements given above is/are correct?

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

#### Ans) C

#### **Explanation: Financial Stability Development Council.**

**Statement 1 is correct**: The Financial Stability and Development Council (FSDC) were set up by the Government as the apex level forum in December 2010.

**Statement 2 is incorrect**: The Chairman of the Council is the **Finance Minister** and its members include **Minister of State**, **in charge of Department** of Economic Affairs (DEA), the **heads of all Financial Sector Regulators** [Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI), Pension Fund Regulatory and Development Authority (PFRDA), Insurance Regulatory and Development Authority of India (IRDAI) and Insolvency and Bankruptcy Board of India (IBBI)], Finance Secretary and/or Secretary, Department of Economic Affairs (DEA), Secretary, Department of Revenue (DoR), Secretary, Department of Financial Services (DFS), Secretary, Ministry of Corporate Affairs (MCA), Secretary, Ministry of Electronics and Information Technology (MeitY) and **Chief Economic Adviser**. Adviser, Ministry of Finance, Department of Economic Affairs, in-charge-of Financial Stability & Development Council, is the Secretary of the Council.

**Statement 3 is correct**: Without prejudice to the autonomy of Regulators, the Council monitors macro prudential supervision of the economy, including functioning of large financial conglomerates, and addresses inter-regulatory coordination and financial sector development issues. It also focuses on financial literacy and financial inclusion.

**Q.8)** Which of the following commodities price index is/are included in the **"FAO Food Price Index"**?

- 1. Cereal Index
- 2. Vegetable oil Index
- 3. Dairy price Index
- 4. Meat index

5. Sugar Index

Choose the correct answer from the code given below:

- a) 1, 3 and 5 only
- b) 1, 3, 4 and 5 only
- c) 1, 2, 3 and 5 only
- d) 1, 2, 3, 4 and 5



#### Ans) D

**Explanation:** The FAO Food Price Index is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices (Cereal, Vegetable oil, Dairy Price, Meat and Sugar indices), weighted with the average export shares of each of the groups for 2002-2004.

Q.9) Which of the following statements is NOT correct about "Blue chip stocks"?

- a) Blue chip stocks are shares of well-recognized companies with a long history of sound financial performance.
- b) Blue chip stocks generally cost high.
- c) These are stocks that generally deliver superior returns in the short run.
- d) India's leading blue chip companies today are State Bank of India (SBI), Bharti Airtel, Tata Consultancy Services (TCS), Coal India, and Reliance Industries.

#### Ans) C

#### **Explanation: Blue Chip Stocks**.

- Blue chip stocks are **shares of very large and well-recognised companies** with a long history of **sound financial performance**. These stocks are known to have capabilities to endure tough market conditions and give high returns in good market conditions.
- Blue chip stocks generally **cost high**, as they have good reputation and are often market leaders in their respective industries.
- **Oliver Gingold**, who worked at Dow Jones, coined the phrase 'Blue Chip' in 1923. This term came into vogue after Gingold, while standing near the stock ticker at a brokerage firm, noticed that several stocks traded at \$200 or more per share. He called them 'Blue Chip Stocks' and wrote an article on them.
- Since then the term has been used to refer to highly-priced stocks, but now it is used more commonly to refer to high-quality stocks. These are **stocks that generally deliver superior returns in the long run**.
- As per market capitalisation, India's leading blue chip companies today are **State Bank** of India (SBI), Bharti Airtel, Tata Consultancy Services (TCS), Coal India, Reliance Industries, HDFC Bank, ONGC, ITC, Sun Pharma, GAIL (India), Infosys, and ICICI Bank.

#### Q.10) Consider the following statements with respect to "Pigovian Tax":

- 1. It is a tax placed on any good which creates negative externalities.
- 2. Carbon tax is an example of Pigovian Tax.

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

#### Ans) C

#### **Explanation:** Pigovian Tax.

**Statement 1 is correct**: A Pigovian tax is a **tax placed on any good which creates negative externalities**. The aim of a Pigovian tax is to make the price of the good equal to the social marginal cost and create a more socially efficient allocation of resources. It is named after the **economist Arthur Pigou** who developed the concept of externalities in the 1920s.



Statement 2 is correct: A carbon tax aims to make individuals and firms pay the full social cost of carbon pollution. In theory, the tax will reduce pollution and encourage more environmentally friendly alternatives.

**Q.11)** 'An Inquiry into the Nature and Causes of the Wealth of Nations' is a book written by which of the following economist?

- a) Adam Smith
- b) John Maynard Keynes
- c) David Ricardo
- d) John Nash

## ANS) A

**Explanation:** On March 9, 1776, "An Inquiry into the Nature and Causes of the Wealth of Nations"—commonly referred to simply as "The Wealth of Nations"—was first published. Smith, a Scottish moral philosopher by trade, wrote the book to describe the industrialized capitalist system that was upending the mercantilist system.

#### Q.12) Which of the following is/are features of Mixed economy?

- 1. Co-existence of public and private sector.
- 2. Economic planning.
- 3. Control of monopoly power.

Select the correct answer using the code given below:

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

#### ANS) D

**Explanation:** Mixed economy is a golden mixture of capitalism and socialism. Mixed economy has following main features:

- 1. Co-existence of Private and Public Sector
- 2. Personal Freedom
- 3. Private Property is allowed
- 4. Price Mechanism and Controlled Price
- 5. Control of Monopoly Power
- 6. Economic Planning

#### Q.13) Which of the following is/are the pillars of the 'Gross National Happiness Index'?

- 1. Decentralization
- 2. Sustainable socio-economic development
- 3. Cultural preservation
- 4. Environmental conservation
- Select the correct answer using the code given below:
- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1, 3 and 4 only
- d) 1, 2, 3 and 4

#### ANS) B

**Explanation: Gross National Happiness** is a term coined by His Majesty the Fourth King of **Bhutan, Jigme Singye Wangchuck** in the 1970s. The concept implies that sustainable



development should take a holistic approach towards notions of progress and give equal importance to non-economic aspects of wellbeing. The **concept of GNH has often been explained by its four pillars: good governance, sustainable socio-economic development, cultural preservation, and environmental conservation**.

# **Q.14)** The term '**Commanding heights of Indian economy**' is related to which of the following?

- a) Public Sector Undertakings
- b) Agriculture
- c) Public Sector Banks
- d) Foreign capital

## ANS) A

**Explanation:** India's first Prime Minister Jawaharlal Nehru, inspired by the then Soviet Union-pioneered model of state sponsored growth, who mooted the idea of placing the government—and within it the **state-owned and state-run PSUs**—as the **commanding heights of the Indian economy**. It was documented in the Industrial Policy Resolution of 1956 and found articulation in the benchmark Second Five Year Plan. Till the beginning of the 1980s, the PSUs continued to be the commanding heights.

Q.15) Which of the following is/are part of eight core industries in India?

- 1. Steel
- 2. Cement
- 3. Coal
- 4. Petrol
- 5. Natural gas

Select the correct answer using the code given below:

- a) 1, 2, 3, 4 and 5
- b) 1, 2, 3 and 4 only
- c) 1, 2, 3 and 5 only
- d) 1, 2 and 3 only

# ANS) C

**Explanation:** The eight core industries are coal, crude oil, natural gas, refinery products, fertilizers, steel, cement and electricity. They comprise 40.27 per cent of the weight of items included in the Index of Industrial Production (IIP).

Q.16) The term 'Monnet plan' is related to which of the following?

- a) Germany
- b) Russia
- c) United Kingdom
- d) None

#### ANS) D

**Explanation:** After converting to a mixed economy by the mid-1940s, **France commenced its first six year plan in 1947, which got popularity as the Monnet Plan** (he was the first chairman of the General Planning Commission and the then Cabinet Minister for planning in France).

**Q.17)** With reference to the 'Gandhian plan', which of the following statements is/are correct?



1. It was prepared by Lala Sri Ram.

2. The Plan laid more emphasis on agriculture, cottage and village-level industries. 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

## ANS) B

Explanation: Gandhian plan.

**Statement is incorrect**: Espousing the spirit of the Gandhian economic thinking, Sriman Narayan Agarwal formulated The Gandhian Plan in 1944.

**Statement 2 is correct**: The plan laid more emphasis on agriculture. Even if he referred to industrialisation, it was to the level of promoting cottage and village-level industries.

Q.18) 'Kheragat Report' is related to which of the following?

- a) Primary Health
- b) Cottage industries
- c) Rural credit
- d) Agriculture development

## ANS) D

**Explanation:** The idea for the need of a planned development of India became more and more popular by the decade of the 1940s. It was under this popular pressure that the Government of India started taking some planned actions in this direction. In the 1940, we see several area-specific reports being published. Area wise Report which associated with planning like Gadgil Report on Rural Credit, **Kheragat Report on Agricultural Development**, Krishnamachari Report on Agricultural Prices, Saraiya Report on Cooperatives.

Q.19) Which of the following statements is/are correct about 'Fifth five year plan'?

1. The time period for Fifth five year plan was 1974-79.

2. Plan focus was on growth and employment.

3. Plan was abruptly ended before completing its tenure.

Select the correct answer using the code given below:

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

#### ANS) C

**Explanation:** The fifth **Plan (1974–79) has its focus on poverty alleviation and selfreliance**. The Janata Party came to power with a thumping victory in 1977. As the government of the time had then complete say in the central planning in India, how could the new government continue with the Fifth Plan of the last government which had still more than one year to reach its completion.

**Q.20)** With reference to the '**District Rural Development Agency (DRDA)**', which of the following statements is/are correct? 1. It was established in1980.



2. It has been the principal organ at the District level to oversee the implementation of different poverty alleviation programmes.

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

# ANS) C

#### Explanation: DRDA.

Statement 1 is correct: The Centre established DRDA in 1980.

Statement 2 is correct: The District Rural Development Agency (DRDA) has traditionally been the principal organ at the District level to oversee the implementation of different poverty alleviation programmes.

Q.21) The term "J-curve effect" is related to which of the following?

- a) Inflation
- b) Economic growth
- c) Balance of trade
- d) Sustainable development

# ANS) C

**Explanation:** The J-curve effect is often cited in economics to describe, for instance, the way that a **country's balance of trade** initially worsens following a devaluation of its currency, then quickly recovers and finally surpasses its previous performance.

**Q.22)** With reference to the "**Indian Depository Receipts (IDR)**", which of the following statements is/are **NOT** correct?

1. IDR is a mechanism that allows investors in India to invest in listed foreign companies.

2. IDRs are denominated in Indian Rupees and issued by a Domestic Depository in India. 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

# ANS) D

#### **Explanation:** Indian Depository Receipts (IDR).

Statement 1 is correct: An IDR is a mechanism that allows investors in India to invest in listed foreign companies, including multinational companies, in Indian rupees. IDRs give the holder the opportunity to hold an interest in equity shares in an overseas company.

**Statement 2 is correct**: **IDRs are denominated in Indian Rupees and issued by a Domestic Depository in India**. They can be listed on any Indian stock exchange. Anybody who can invest in an IPO (Initial Public Offer) is/are eligible to invest in IDRs.

Q.23) "Programme for Country Partnership (PCP)" is related to which of the following?

- a) UNCTAD
- b) UNIDO
- c) World Bank
- d) WEF



#### ANS) B

**Explanation:** The **PCP** is **UNIDO's innovative model for accelerating inclusive and sustainable industrial development in Member States**. Aligned with the national development agenda and focused on sectors with high growth potential, the programme supports a country in achieving its industrial development goals. The PCP rests on a multistakeholder partnership led by the host government. It builds synergies with ongoing government and partner interventions relevant to industrial development. The PCP is also **designed to leverage additional investment in selected priority sectors**. As such, it is a model that facilitates the mobilization of partners and resources to achieve larger development impact. For **UNIDO, the PCP serves to operationalize the Organization's mandate and SDG 9**. At the same time, it is a model that can be used to implement other SDGs too.

Q.24) With reference to the "Global Manufacturing and Industrialization Summit (GMIS)", which of the following statements is/are correct?

- 1. It was established in 2018.
- 2. Its main focus is harnessing the Fourth Industrial Revolution's transformation of manufacturing to the regeneration of the global economy.
- 3. It is a Joint initiative of WEF, UNIDO and United Arab Emirates.

Select the correct answer using the code given below:

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

#### ANS) C

**Explanation:** The Global Manufacturing and Industrialization Summit (GMIS) was established in 2015 to build bridges between manufacturers, governments and NGOs, technologists, and investors and to harness the Fourth Industrial Revolution's transformation of manufacturing to enable the regeneration of the global economy. A joint initiative of the United Nations Industrial Development Organization (UNIDO) and the United Arab Emirates (UAE), GMIS is a platform that presents the manufacturing sector with an opportunity to contribute towards global good.

Q.25) "External Sector Report" is released by which of the following?

- a) World Trade Organization
- b) World Bank
- c) World Economic Forum
- d) International Monetary Fund

#### ANS) D

**Explanation:** The **External Sector Report, produced annually since 2012, is a key part of the IMF's surveillance**. External assessments are arrived at by integrating multilateral and country-specific perspectives, while ensuring individual economy assessments add up to a coherent, multilaterally consistent view.

Q.26) The term "Seigniorage" is related to which of the following?

- a) Inflation tax
- b) Corporate tax
- c) Banking tax
- d) None



#### ANS) A

**Explanation: Inflation erodes the value of money and the people who hold currency suffer in this process**. As the governments have authority of printing currency and circulating it into the economy (as they do in the case of deficit financing), this act functions as an income to the governments. This is a situation of sustaining government expenditure at the cost of people's income. This looks as if inflation is working as a tax. That is **how the term inflation tax is also known as seigniorage**. It means, inflation is always the level to which the government may go for deficit financing—level of deficit financing is directly reflected by the rate of inflation.

**Q.27)** Which of the following describes "A graphic curve which advocates a relationship between inflation and unemployment in an economy"?

- a) Gini-coefficient
- b) Laffer Curve
- c) Lorrenz curve
- d) Phillips curve

#### ANS) D

**Explanation: Phillips curve is a graphic curve which advocates a relationship between inflation and unemployment in an economy**. As per the curve there is a 'trade off' between inflation and unemployment, i.e., an inverse relationship between them. The curve suggests that lower the inflation, higher the unemployment and higher the inflation, lower the unemployment. During the 1960s, this idea was among the most important theories of the modern economists. This concept is known after the economists who developed it—Alban William Housego Phillips (1914–75).

**Q.28)** With reference to the "**effects of inflation**", which of the following statements is/are correct?

1. Inflation redistributes wealth from creditors to debtors.

2. Rising inflation indicates rising aggregate demand.

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

#### ANS) C

**Explanation:** There are multi-dimensional effects of inflation on an economy both at the micro and macro levels. It redistributes income, distorts relative prices, destabilizes employment, tax, saving and investment policies, and finally it may bring in recession and depression in an economy.

Statement 1 is correct: Inflation redistributes wealth from creditors to debtors, i.e., lenders suffer and borrowers benefit out of inflation.

Statement 2 is correct: Rising inflation indicates rising aggregate demand and indicates comparatively lower supply and higher purchasing capacity among the consumers.

Q.29) "Veblen Effect" is related to which of the following?

- a) Theory of Production
- b) Theory of Supply
- c) Theory of Consumption
- d) Theory of Exchange



ANS) C

**Explanation:** Named after the **American economist Thorstein Bunde Veblen (1857–1929), this is a theory of consumption** which suggests that consumers may have an 'upward-sloping demand curve' as opposed to a 'downward-sloping demand curve' because they practice conspicuous consumption (a downward - sloping demand curve means that the quantity demanded varies inversely to the price i.e. demand falls with price rise).

Q.30) Which of the following statements is/are correct about "small finance banks"?

- 1. Small finance banks are universal banks.
- 2. Small Finance Banks was recommended by the Nachiket Mor committee on financial inclusion.

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

#### ANS) B

**Explanation:** Small finance banks.

**Statement 1 is incorrect**: Differentiated Banks (niche banks) are banks that serve the needs of a certain demographic segment of the population. Small Finance Banks and Payment Banks are examples of differentiated banks in India.

Statement 2 is correct: Small Finance Banks was recommended by the Nachiket Mor committee on financial inclusion.

Q.31) "Ahulwalia-Chenery Index" is related to which of the following?

- a) International Trade
- b) Poverty-Inequality
- c) Exchange rate
- d) Manufacturing growth

#### ANS) B

**Explanation:** GDP may grow but the distribution of resources may in-fact worsen making the rich richer and poor poorer. Thus, Inclusive growth and not merely growth is required. An index that measures how all social groups are impacted by growth is necessary. This problem was recognized by Montek Singh Ahulwalia. The Ahulwalia-Chenery welfare Index, measures how each social group impacted by prosperity.

**Q.32)** Which of the following is/are eligibility criteria to be considered for grant of "**Maharatna status**" to Central Public Sector Enterprise (CPSE)?

1. Listed on Indian stock exchange.

2. Average annual turnover of more than Rs. 50,000crore, during the last 3 years.

3. Average annual net worth of more than Rs. 25,000crore, during the last 3 years. Select the correct answer using the code given below:

a) 1 only

b) 1 and 2 only

- c) 2 and 3 only
- d) 1, 2 and 3

ANS) A



**Explanation:** The CPSEs fulfilling the following criteria are eligible to be considered for grant of Maharatna status.

- Having Navratna status.
- Listed on Indian stock exchange with minimum prescribed public shareholding under SEBI regulations.
- Average annual turnover of more than Rs. 25,000crore, during the last 3 years.
- Average annual net worth of more than Rs. 15,000crore, during the last 3 years.
- Average annual net profit after tax of more than Rs. 5,000crore, during the last 3 years.
- Should have significant global presence/international operations.

Q.33) With reference to the "Hybrid Annuity Model (HAM)", which of the following statements is/are correct?

1. It is a mix of Build-Operate-Transfer (BOT) and Engineering, Procurement and Construction (EPC) models.

2. Under HAM 40% of the project cost is born by the government.

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

#### ANS) C

**Explanation:** Hybrid Annuity Model (HAM).

Statement 1 is correct: In India, the new HAM is a mix of BOT Annuity and EPC models.

Statement 2 is correct: As per the design, the **government will contribute to 40% of the project cost** in the first five years through annual payments (annuity). The remaining payment will be made on the basis of the assets created and the performance of the developer.

**Q.34)** Which of the following statements is/are correct about "**India Infrastructure Finance Company Ltd (IIFCL)**"?

1. It is jointly owned by Public sector and Private sector.

2. It provides long-term financial assistance to viable infrastructure projects.

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

#### ANS) B

**Explanation: IIFCL is a wholly-owned Government of India Company** set up in 2006 to **provide long-term financial assistance to viable infrastructure projects** through the Scheme for Financing Viable Infrastructure Projects through a Special Purpose Vehicle called India Infrastructure Finance Company Ltd (IIFCL), broadly referred to as SIFTI. The sectors eligible for financial assistance from IIFCL are as per the Harmonized list of Infrastructure Sub-Sectors as approved by the Government and as amended from time to time. These broadly include transportation, energy, water, and sanitation, and communication, social and commercial infrastructure.



**Q.35)** With reference to the "National Investment & Manufacturing Zones (NIMZs)", which of the following statements is/are **NOT** correct?

- 1. NIMZs are one of the important instruments of National Capital Goods Policy, 2016.
- 2. NIMZs are different from SEZs in terms of size, level of infrastructure planning, governance structures related to regulatory procedures, and exit policies.

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

## ANS) A

Explanation: National Investment & Manufacturing Zones (NIMZs).

Statement 1 is incorrect: National Investment & Manufacturing Zones (NIMZs) are one of the important instruments of National Manufacturing Policy, 2011. NIMZs are envisaged as large areas of developed land with the requisite eco-system for promoting world class manufacturing activity.

**Statement 2 is correct**: The main objective of Special Economic Zones is promotion of exports, while NIMZs are based on the principle of industrial growth in partnership with States and focuses on manufacturing growth and employment generation. NIMZs are different from SEZs in terms of size, level of infrastructure planning, governance structures related to regulatory procedures, and exit policies.

Q.36) "World Investment Report" is published by which of the following?

- a) IMF
- b) WEF
- c) UNIDO
- d) None

#### ANS) D

**Explanation: The World Investment Report has been published annually since 1991, by UNCTAD**. Each year's Report covers the latest trends in foreign direct investment around the World and analyses in depth one selected topic related to foreign direct investment and development.

Q.37) Which of the following statements is/are correct about "International Standards of Accounting and Reporting (ISAR)"?

- 1. ISAR is the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting, the United Nations focal point on accounting and corporate governance matters.
- 2. It was established in 1982 by the United Nations Economic and Social Council (ECOSOC).
- 3. United Nations Conference on Trade and Development (UNCTAD) serves as ISAR's secretariat.

Select the correct answer using the code given below:

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

ANS) D



**Explanation:** ISAR is the **Intergovernmental Working Group** of Experts on International Standards of Accounting and Reporting, the United Nations focal point on accounting and corporate governance matters. It was **established in 1982 by the United Nations Economic and Social Council (ECOSOC)**. Through its Division on Investment and Enterprise, **the United Nations Conference on Trade and Development (UNCTAD) serves as ISAR's secretariat**, providing substantive and administrative inputs to its activities.

Q.38) The term "Supplemental Reserve Facility (SRF)" is related to which of the following?

- a) AIIB
- b) ADB
- c) IMF
- d) GEF

#### ANS) C

**Explanation:** In December 1997, the **Executive Board (IMF) opened a new lending window—the SRF**—for member countries experiencing exceptional balance of payments problems owing to a large short-term financing need resulting from a sudden and disruptive loss of market confidence reflected in pressure on the capital account and the member's reserves.

Q.39) Which of the following institutions is/are part of "World Bank"?

- 1. International Bank for Reconstruction and Development (IBRD).
- 2. International Financial Corporation (IFC).
- 3. Multilateral Investment Guarantee Agency (MIGA).
- 4. International Centre for Settlement of Investment Disputes (ICSID).
- 5. International Development Association (IDA).

Select the correct answer using the code given below:

- a) 1, 2 and 5 only
- b) 1 and 5 only
- c) 1, 2, 3 and 5 only
- d) 1, 2, 3, 4 and 5

#### ANS) B

**Explanation:** As the World Bank has adapted its mechanisms and approaches to address the evolving challenges developing countries have faced; it has evolved into the **"World Bank Group"**. This consists of **five closely related institutions** that specialize in different aspects of development:

- International Bank for Reconstruction and Development (IBRD);
- International Development Association (IDA);
- International Financial Corporation (IFC);
- Multilateral Investment Guarantee Agency (MIGA);
- International Centre for Settlement of Investment Disputes (ICSID).

The **term "World Bank" refers only to IBRD and IDA**. Together, these two organizations provide low-interest loans, interest-free credit, and grants to developing countries. Both IBRD loans and IDA credits support investment projects and programs designed to meet priority economic and social needs. They also provide financial support to help governments undertake reform in the structural and social policies that are crucial to effective private and public sector development, and to poverty reduction.



**Q.40)** Which of the following committee recommended establishment of **"Banks Board Bureau"**?

- a) Usha Thorat Committee
- b) Nachiket Mor Committee
- c) Urjit Patel Committee
- d) P J Nayak Committee

# ANS) D

**Explanation:** The Banks Board Bureau owes its genesis to the recommendations in the Report of The Committee set up by the Reserve Bank of India to Review Governance of Boards of Banks in India (Chair: Dr **P J Nayak**; May 2014), which envisaged the Bureau as a precursor to a Company which would eventually hold the Government's investments in PSBs.

**Q.41)** With reference to the "**Tax-to-GDP**" ratio of India, which of the following statements is/are correct?

- 1. A higher Tax-to-GDP ratio generally leads to reduced government borrowing.
- 2. India's Tax-to-GDP ratio is less than the average OECD Tax-to-GDP ratio.

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

## ANS) C

Explanation: Tax-to-GDP.

**Statement 1 is correct**: Tax-to-GDP ratio represents the size of a country's tax kitty relative to its GDP. It is a representation of the size of the government's tax revenue expressed as a percentage of the GDP. **Higher the tax to GDP ratio the better financial position the country** will be in. The ratio represents that the government is able to finance its expenditure. A **higher tax to GDP ratio means that the government is able to cast its fiscal net wide. It reduces a government's dependence on borrowings**.

Statement 2 is correct: Although India has improved its tax-to-GDP ratio in the last six years, it is still far lower than the average OECD ratio which is 34 per cent. India's tax-to-GDP ratio is lower than some of its peers in the developing world. Developed countries tend to have higher tax-to-GDP ratio.

Q.42) Which of the following statements is/are correct about "Flexible Inflation Targeting Framework" in India?

1. It was based on the recommendation of Urjit patel committee.

2. It was given statutory basis by amending the RBI ACT, 1934.

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

#### ANS) C

**Explanation:** Inflation Targeting Framework.

**Statement 1 is correct**: In his first speech as RBI Governor, Raghuram Rajan (Reserve Bank of India, 2013) emphasized on the importance of inflation targeting and set up an



Expert Committee under **Deputy Governor Urjit Patel** to assess the current monetary policy and give recommendations to strengthen it.

**Statement 2 is correct**: The RBI Act was amended on May 14, 2016 to give the key provisions in the Monetary Policy Framework Agreement (MPFA) a **statutory basis**.

# **Q.43)** Which of the following "**Consumer Price Index (CPI) numbers**" is/are released by Labour Bureau in the Ministry of Labour?

- 1. CPI for Industrial Workers (IW).
- 2. CPI for Agricultural Labourers (AL).
- 3. CPI for Rural Labourers (RL).

4. CPI for Urban Non-Manual Employees (UNME).

Select the correct answer using the code given below:

- a) 1, 2, 3 and 4
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3 only

## ANS) D

**Explanation**: At the national level, there are four Consumer Price Index (CPI) numbers. These are:

- CPI for Industrial Workers (IW),
- CPI for Agricultural Labourers (AL),
- CPI for Rural Labourers (RL) and
- CPI for Urban Non-Manual Employees (UNME).

The base years of the current series of CPI (IW), CPI (AL) and CPI (RL), and CPI (UNME) are 1982, 1986-87 and 1984-85, respectively. While **the first three are compiled and released by the Labour Bureau in the Ministry of Labour, the fourth one is released by the Central Statistical Organisation** under the Ministry of Statistics and Programme Implementation.

Note - CPI for Urban Non-Manual Employees (UNME) has been discontinued since Dec 2010.

#### Q.44) "Internal Debt" of India consists of which of the following?

- 1. Dated securities
- 2. Treasury bills
- 3. Securities issued to International Financial Institutions
- 4. Securities against small savings
- Select the correct answer using the code given below:
- a) 1, 2, 3 and 4
- b) 1, 2 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2 and 3 only

# ANS) A

Explanation: Internal debt of India consists of:

- Dated government securities or G-secs.
- Treasury Bills or T-bills
- External Assistance
- Short term borrowings
- Public Debt definition by Union Government

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# **ForumIAS**

									(₹ crore
	ACTUALS					Provisional	Estimates		
								RE	BE
COMPONENTS		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2010-11	2011-12
	OF DEBT								
A. PUBLIC DEBT (B+C)		1484001.33	1647690.71	1911682.10	2142886.77	2462422.05	2824753.92	2860191.25	3281464.94
. INTI	ERNAL DEBT (i+ii)	1389758.29	1544975.17	1799651.18	2019841.17	2328338.90	2667114.82	2703844.28	3110617.97
i) Und	ler MSS								
(a)	Dated Securities	11000.00	22000.00	128317.00	79772.78	2737.00	0.00	0.00	20000.00
(b)	Treasury Bills	18062.17	40973.95	42236.77	9000.00	0.00	0.00	0.00	0.00
	Total (a+b)	29062.17	62973.95	170553.77	88772.78	2737.00	0.00	0.00	20000.00
ii)	Market Loans								
(a)	Dated Securities	967676.32	1074604.07	1197371.61	1426501.59	1824925.95	2150340.42	2181152.24	2524152.24
(b)	Treasury Bills	91489.15	112901.40	140382.23	239978.53	230209.76	237968.93	240209.76	255209.76
(c)	Compensation &								
	Other Bonds	72761.37	62095.74	71325.13	47506.38	38731.52	31005.37	39986.86	35869.38
(d)	Securities issued to								
	International Financial								
	Institutions	25151.61	25798.49	24719.41	23085.34	24482.60	29314.81	17462.69	26171.40
(e)	Securities against								
	small savings	203617.67	206601.52	195299.03	193996.55	207252.07	218485.29	225032.73	249215.19
	Total (a+b+c+d+e)	1360696.12	1482001.22	1629097.41	1931068.39	2325601.9	2667114.82	2703844.28	3090617.97

Q.45) "It is a method of budgeting in which all expenses must be justified for each new period". The above statement describes which of the following?

- a) Traditional budgeting
- b) Zero-based budgeting
- c) Incremental budgeting
- d) Activity based budgeting

#### ANS) B

**Explanation:** Zero-based budgeting (ZBB) is a method of budgeting in which all expenses must be justified for each new period. The process of zero-based budgeting starts from a "zero base," and every function within an organization is analyzed for its needs and costs. Budgets are then built around what is needed for the upcoming period, regardless of whether each budget is higher or lower than the previous one.

**Budget** A written estimation of the financial performance of a particular department, a specific project, a business unit or an organization.

Budgeting Primarily, the activity of preparing the budgets is called budgeting.

#### Zero Based Budgeting

#### **Traditional Budgeting**

In ZBB, current year's budget is prepared from the scratch, without considering the budget of the previous year.

It considers last year's budget as the base. The changes are done based on the inflation rate, consumer demand, market situation etc.

# **Types of Budgeting Methods**

#### **Incremental Budgeting**

In this, current year's budget is prepared by making changes in the past year's budget considering the inflation factor. It's a quick and easy method of preparing budgets.

#### Activity Based Budgeting

Activity based budgeting is a budgeting method where budget is prepared after considering the cost drivers. It does an indepth analysis of activities incurring cost.

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#### ForumIAS

**Q.46)** The term "**Crowding out Effect**", often seen news, is related to which of the following?

- a) Rise in individual borrowings
- b) Rise in foreign investment
- c) Rise in borrowing of government
- d) Rise in high powered money

## ANS) C

#### **Explanation:** Crowding out Effect

In some situations, such as high budget deficit etc, there is rise in government borrowing from the market. Due to the excessive borrowing by the government from the market, there is little credit left for private sector to borrow. As a result, interest rate rises, making borrowings by private sector costly and leading to decline in private investment. This is known as crowding out effect. The private borrowing and subsequent private investment is discouraged.

#### Q.47) Which of the following is/are "determinants of Supply"?

- 1. The number of sellers in a market.
- 2. The amount of government regulation, subsidies or taxes in a market.
- 3. The prices of inputs used to produce a good.
- Select the correct answer using the code given below:
- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

#### ANS) D

**Explanation:** The law of supply states that there is a positive relationship between price and quantity supplied, leading to an upward-sloping supply curve. The determinants of supply: changes in non-price factors that will cause an entire supply curve to shift (increasing or decreasing market supply); these include

- the number of sellers in a market,
- the level of technology used in a good's production,
- the prices of inputs used to produce a good,
- the amount of government regulation, subsidies or taxes in a market,
- the price of other goods sellers could produce, and
- the expectations among producers of future prices.

Q.48) Which of the following is an example of "Stealth Tax"?

- a) Personal Income Tax
- b) Corporate Tax
- c) Sales Tax
- d) All of the above

#### ANS) C

**Explanation: Stealth taxes are sometimes built into the prices of products so that consumers do not see how much tax they are paying**. In comparison to income taxes and property taxes, stealth taxes are smaller and less visible. Because of their lower visibility they attract significantly less attention than income or property taxes. Governments find stealth taxes easier to collect than other types of taxes because the



government collects them at the point of sale and they do not depend on a taxpayer's income level. **The most common stealth tax is the sales tax**.

Q.49) The term "Walrus Law" is related to which of the following?

- a) International Trade
- b) Demand of goods equal to Supply of goods
- c) Carrying Capacity
- d) None

#### ANS) B

**Explanation**: As per the Walrus law, 'the total value of goods demanded in an economy is always identically equal to the total value of goods supplied'. For this to happen, the economy should be in equilibrium. It also means that if there is an excess supply of certain things in one market there must be excess demand for it in another market. Here 'another market' does not mean the market of another economy—it is taken as, apple's market, grape's market (as 'separate' markets). This could be only correct in a barter economy (it does not work in an economy with currency as its mode of exchange). The idea was part of the 'general equilibrium theory' developed by the French mathematical economist Marie-Esprit-Leon Walras (1834-1910), after whom it is named.

Q.50) Which of the following statements is/are NOT correct about "Tobin tax"?

1. It is a tax imposes on all foreign exchange transactions.

2. At present only USA, Japan and Germany implement Tobin tax.

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

#### ANS) B

Explanation: Tobin tax.

**Statement 1 is correct**: It is a **proposal of imposing small tax on all foreign exchange transactions** with the objective to discourage destabilizing speculation and volatility in the foreign exchange markets.

**Statement 2 is incorrect**: Proposed by the Nobel prize-winning economist James Tobin (1918–2002), the **tax has never been implemented anywhere in the world so far**.



# History

## **Q.1)** Consider the following pairs:

#### Major Rock Edicts of Asoka Importance

- 1. Rock Edict I :
- It Prohibits animal slaughter and bans festive gatherings.
- 2. Rock Edict III :
- It mentions and guides about Generosity to Brahmans.
- 3. Rock Edict V : Ashoka requests tolerance for all religions and sects.

Which of the above pairs is/are **NOT** correctly matched?

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

## Ans) D

**Explanation:** The important major rock edicts of Asoka are:

- **Major Rock Edict I** It **Prohibits animal slaughter** and bans festive gatherings. He mentions that only two peacocks and one deer were being killed in Asoka's kitchen which he wanted to be discontinued.
- **Major Rock Edict II** This edict provides for **care for man and animals**. It also describes the presence of Pandyas , Satyapura and Keralputra Kingdoms of South India.
- Major Rock Edict III It mentions and guides about Generosity to Brahmans. This edict was issued after 12 years of Asoka's coronation
- Major Rock Edict IV It says that Dhammaghosa (sound of righteousness) is ideal to the mankind and not the Bherighosa (sound of war)
- **Major Rock Edict V** It concerns about the **policy of people towards their slaves**. "Dhammamahamatras" are mentioned in this edict as appointees of the state.
- Major Rock Edict VI This describes the King's desire to stay informed about the conditions of the people of his regime constantly. Welfare measures for the people.
- Major Rock Edict VII Ashoka requests tolerance for all religions and sects.

#### Q.2) "Kaundi Adigal and Manimegalai" is related to which of the following?

- a) Temple construction style
- b) Female ascetics
- c) Ancient books of Sangam age
- d) None

# Ans) B

**Explanation:** The **status of women** in **Sangam society** was not equal to that of men. The Sangam society consisted of different kinds of women. There were married women who had settled down as dutiful housewives. There were **female ascetics** belonging to Buddhist or Jain tradition like **Kaundi Adigal and Manimegalai** and also a large number of courtesans.

**Q.3)** Who among the following said - "India's safety, and Britain's too, lies in the orderly and timely British withdrawal from India"?

a) Jawaharlal Nehru

b) Subhash Chandra Bose



c) Sardar Vallabhai Patel

d) Mahatma Gandhi

#### Ans) D

**Explanation:** The **World War II situation** was discouraging in 1942. The **Japanese Army** had attacked Burma and was marching towards Assam. **Mahatma Gandhi** said," India's safety and Britain's too, lies in the orderly and timely British withdrawal from India." So they decided to launch a movement upon the British to quit India.

Q.4) Consider the following statements with respect to "Nagara style of architecture":

- 1. It Started from 2<sup>nd</sup> Century A.D in North India.
- 2. Presence of Mandapas in front of the principle shrine is one of the prominent features of Nagara style.

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

#### Ans) B

#### Explanation: Nagara Style of Architecture

Statement 1 is incorrect: From fifth century A.D. onwards, a distinct style of temple architecture developed in the northern part of India, known as the Nagara style of architecture.

**Statement 2 is correct**: Some of the features of Nagara style are:

- The temples generally followed the **Panchayatan style** of temple making, which consisted of subsidiary shrines laid out in a crucified ground plan with respect to the principal shrine.
- Presence of assembly halls or mandaps in front of the principal shrine.
- Outside the garbhagriha, **images of the river goddesses**, Ganga and Yamuna, were placed.
- There were **no water tanks or reservoirs** present in the temple premises.

#### Q.5) Who wrote the Book "A Nation in Making"?

- a) Dadabhai Naoroji
- b) Pherozshah Mehta
- c) Surendranath Banerjee
- d) Gopal Krishna Gokhale

#### Ans) C

**Explanation: Sir Surendranath Banerjea** (1848–1925) was one of the founders of modern India and a proponent of autonomy within the British Commonwealth. He served as an **Indian Civil Service officer** till 1874, before becoming a teacher. He founded Ripon College, later renamed after him, in Calcutta and worked on the idea of nationalism. He purchased **The Bengalee**, a newspaper he edited for 40 years to propagate his nationalist viewpoint. He **was twice appointed the president of Indian National Congress**, appealed to the British to modify the 1905 Partition of Bengal, and in 1921 he was knighted and accepted office **as minister of Local Self-government in Bengal**. **He retired to write his autobiography, A Nation in Making in 1925**.



**Q.6)** Which of the following Governor General of India introduced the **'Non-Regulation** System'?

- a) Lord William Bentinck
- b) Lord Mayo
- c) Lord Dalhousie
- d) Lord Ellenborough

# ANS) C

**Explanation:** Dalhousie's chief aim was the consolidation of British rule in India. So he adopted the principle of centralization. For the newly acquired territories he devised the 'Non-Regulation System" under which commissioners were appointed to deal with the administrative problems. They were made responsible to the Governor-General in the Council. He handed over all other powers relating to justice, police, and land revenue to the District Magistrates.

Q.7) The term 'mirasdars' is related to which of the following?

- a) Blacksmith
- b) Security Guards
- c) Village volunteers
- d) Hereditary peasant Proprietors

## ANS) D

**Explanation:** The word **mirasdars of Arabic origin**. As mentioned in the Marathi documents, it refers to hereditary or transferable right or patrimony (bop roti) obtained by descent, purchas, or gift, etc. The **mirasdars were the holders of land under the mirasi tenure**. They owned the village land and could exact rent in money or service from persons who lived on their land.

**Q.8)** With reference to the changes made with Indian army after 1857 revolt, which of the following statement is **NOT** correct?

- a) The East India Company's European forces were merged with the Crown troops.
- b) The proportion of Europeans to Indians in the army was raised and fixed at one to two in the Bengal Army, Madras and Bombay armies.
- c) European troops were kept in key geographical and military positions.
- d) The older policy of excluding Indians from the officer corps was strictly maintained.

#### ANS) B

**Explanation:** The Indian army was carefully reorganized after 1858. Some changes were made necessary by the transfer of power to the Crown. The **East India Company's European forces were merged with the Crown troops**. But the army was reorganized most of all to prevent the recurrence of another revolt. The rulers had seen that their bayonets were the only secure foundation of their rule. Several following steps were taken to minimize, if not completely eliminate, the capacity of Indian soldiers to revolt –

- The domination of the army by its European branch was carefully guaranteed.
- The proportion of Europeans to Indians in the army was raised and fixed at one to two in the Bengal Army and two to five in the Madras and Bombay armies.
- The **European troops were kept in key geographical and military positions**. The crucial branches of the army like artillery and, later in the 20th century, tanks, and armored corps were put exclusively in European hands.
- The older policy of excluding Indians from the officer corps was strictly maintained. Till 1914, no Indian could rise higher than the rank of a subedar.

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# ForumIAS

- The organization of the Indian section of the army was based on the policy of "balance and counterpoise" or "divide and rule" so as to prevent its chances of uniting again in an anti-British uprising.
- **Discrimination** on the basis of caste, region, and religion was practiced, in recruitment to the army.

**Q.9)** Tansen who was a great singer and musician resided in whom among the following Mughal ruler?

- a) Aurangzeb
- b) Humayun
- c) Shah Jahan
- d) Akbar

## ANS) D

**Explanation:** Tansen was a vocalist and instrumentalist who created many ragas. He was initially the court singer of King Ram Chand of Rewa State. It is said that Emperor Akbar made him into his own musician after learning about his extraordinary musical skills. He went on to become one of the Navaratnas (Nine Gems) in the court of Mughal Emperor Akbar.

Q.10) The monolithic Bull-capital of Ashoka is found at which of the following place?

- a) Sarnath
- b) Sanchi
- c) Rampurva
- d) Kalinga

# ANS) C

**Explanation:** The bull capital of Ashoka from Rampurva, Bihar, also belonging to the third century B.C. is an interesting study as it is a mixture of Persian and Indian elements. The lotus capital is entirely formalistic. The motifs on the abacus are beautiful decorative elements like the rosette, palmette and the acanthus ornaments, none of them Indian. However, the crowning element of the bull capital, that is the bull proper, is a master-piece of Indian craftsmanship, showing a humped bull, well modelled, with its soft flesh beautifully represented, with its strong legs, sensitive nostrils and the ears cocked as if it were listening.

#### Q.11) Which of the following is/are "Mesolithic sites" in India?

- 1. Bagor
- 2. Tinnevelly
- 3. Sarai Nahar Rai

Select the correct answer using the code given below:

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

#### ANS) D

**Explanation:** The Mesolithic Age represents the intermediate stage in Stone Age Culture. Important Mesolithic sites are:

• **Bagor, Rajasthan** on River Kothari is one of the largest and best documented Mesolithic sites in India.



- **Chhotanagpur Region**, Central India. Both **Adamgarh, M.P.** and Bagor provide the earliest evidence for the domestication of animals
- South of River Krishna, **Tinnevelly** in Tamil Nadu
- Birbhanpur in West Bengal
- Sarai Nahar Rai, near Allahabad, Pratapgarh area
- **Mahadaha, U.P.,** where bone artifacts are found, including arrow-heads and bone ornaments.

Q.12) Which of the following statement is NOT correct about "Harappan town planning"?

- a) The streets were wide and divide the town into rectangular and square blocks.
- b) There were lamp-posts at regular intervals.
- c) They used mud bricks of good quality across all Harappan structures.

d) They had an excellent drainage system.

## ANS) C

**Explanation:** Distinguishing aspects of Harappan town planning are as follows:

- The streets were wide, the main street being ten metres wide and dividing the town into rectangular and square blocks.
- There were **lamp-posts** at intervals. They used **burnt bricks** of good quality and the unique feature of this brick was its identical ratio of 1:2:4 in terms of thickness:width:length across all Harappan structures. Equally striking was the uniformity in the average size of bricks  $7 \times 14 \times 28$  cm3 for houses and  $10 \times 20 \times 40$  cm for city walls.
- They had an **excellent drainage system** drains were made of mortar, lime and gypsum and covered with large brick slabs for easy cleaning.
- Houses were often of two or more storeys, though varied in size but quite monotonous. No window faced the streets and the houses had tiled bathrooms. Some houses had their own wells.

Q.13) Which of the following is/are part of early "Buddhist literature"?

- 1. Nettipakarana
- 2. Acharanga Sutra
- 3. Kalpasutra

Select the correct answer using the code given below:

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

# ANS) A

**Explanation:** The important non-canonical texts of Buddhist literature are **Milindapanho** (written in Pali, it consists of a dialogue on various philosophical issues between the Indo-Greek king Milinda/Menander and the monk Nagasena), **Nettipakarana** (The Book of Guidance, which gives a connected account of the Buddha's teachings), **Visuddhimagga** (The Path to Purity, written by Buddhaghosa.

Early Jain Literature: The complication of the entire canon is traditionally believed to have taken place in the **fifth or sixth century CE** at a council presided over by **Devarddhi** Kshamashramana held in Vallabhi in Gujarat. Compilations such as Acharanga Sutra, Sutrakritanga, and the Kalpasutra are regarded as the early texts.



# **Q.14)** Which of the following statements is/are correct about "**Lokayata school of Indian philosophy**"?

1. It was founded by Charvaka.

2. It accepts the existence of any divine or supernatural agency.

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

# ANS) A

#### Explanation: Charvaka/Lokayata philosophy.

Statement 1 is correct: Its **founder was Charvaka**, the author of the Barhaspatya Sutras in the final centuries before the Common Era. It is characterised as a materialistic and atheistic school of thought. Lokayata refers to ideas derived from common people and it underlines the importance of intimate contact with the world (loka), while showing a lack of belief in the other world.

Statement 2 is incorrect: It **denies the existence of any divine or supernatural agency** and accepts the existence /reality of only those things which could be experienced by human senses and organs. Thus, there was a clear lack of faith in the existence of brahman and God. According to Charvaka, the Brahmanas manufactured rituals for acquiring dakshina (gifts).

Q.15) Which of the following statements is/are correct about the "administration of Alauddin Khalji"?

1. He was the first sultan to have a large permanent standing army.

2. He fixed the prices of commodities of daily use.

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

# ANS) C

Explanation: Administration of Alauddin Khalji.

Statement 1 is correct: Alauddin was the first Sultan to have a large permanent standing army and paid them in cash from the royal treasury.

Statement 2 is correct: Since Alauddin wanted to maintain a large army; he therefore lowered and fixed the price of the commodities of daily use.

Q.16) Which of the following Delhi Sultan created a separate department for Agriculture?

- a) Firoz Tughlaq
- b) Muhammad bin Tughlaq
- c) Alauddin Khalji
- d) None

# ANS) B

**Explanation:** Sultans like Muhammad bin Tughlaq and Firoz Tughlaq took efforts to enhance agricultural production by providing irrigational facilities and by providing takkavi loans. They also encouraged the farmers to cultivate superior crop like wheat instead of



barley. Firoz encouraged the growth of horticulture. Muhammad bin Tughlaq created a separate agricultural department, Diwan-i- Kohi.

#### Q.17) "Indian Home Rule Society" was founded by which of the following?

- a) Annie Besant
- b) Bala Gangadhar Tilak
- c) Birendranath Samsal
- d) Shyamji Krishna Varma

#### ANS) D

**Explanation: Shyamji Krishna varma** was an Indian revolutionary fighter, lawyer and journalist. He **founded the Indian Home Rule Society**, India House and The Indian Sociologist in London.

Q.18) The term "Home Charges" is related to which of the following?

- a) Economic Drain
- b) Tribal policy
- c) Princely States
- d) Individual Satyagrahas

#### ANS) A

**Explanation: Home Charges represented the single biggest source of the direct drain of wealth**, the expenses in Britain borne by the Indian treasury. These Home Charges were a huge burden on the finances and contributed to a sustained and continuous deficit in the budget throughout the nineteenth century. Home charges included pensions to British Indian officials, army officers, military and other stores purchased in England.

**Q.19) "Deepavali declaration**" is related to which of the following Viceroy/Governor General of India?

- a) Lord Willingdon
- b) Lord Linlithgow
- c) Lord Reading
- d) Lord Irwin

#### ANS) D

**Explanation:** "Deepavali declaration" passed during the tenure of Lord Irwin in 1929(just after Simon commission 1928). It was just a show leaf to Indians for dominion status that was to be not granted anywhere in the near future.

**Q.20)** With reference to the "**Swadeshi Movement**", which of the following statements is/are correct?

- 1. Bande Mataram became the boycott and Swadeshi movement theme song.
- 2. The Shivaji and Ganapati festivals in Western India (Maharashtra) were organized by Lokmanya Tilak to spread the swadeshi message and boycott movements among the masses.

Select the correct answer from the code given below:

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



#### ANS) C

**Explanation:** A Boycott Resolution was passed in Calcutta City Hall on August 7, 1905, where it was decided to boycott the use of Manchester cloth and salt from Liverpool.

- Bande Mataram became the boycott and Swadeshi movement theme song.
- Boycott and public burning of foreign clothes, picketing of shops selling foreign goods, all became common in remote corners of Bengal as well as in many major cities and towns across the country.
- Another form of **mass mobilization** widely used by the Swadeshi movement was the corps of volunteers (samitis). Ashwini Kumar Dutt, a school teacher, set up the Swadesh Bandhab Samiti in Barisal was the best known volunteer organization of all of them.
- The **Shivaji and Ganapati festivals in Western India (Maharashtra)** were organized by Lokmanya Tilak to spread the swadeshi message and boycott movements among the masses.

**Q.21)** The **"Treaty of Sugauli**" is signed between British East India Company and which of the following?

a) Bhutan

- b) Assam
- c) Myanmar
- d) Nepal

## ANS) D

Explanation: The Treaty of Sugauli that established the boundary line of Nepal and colonial India was signed on 2 December 1815 and ratified by 4 March 1816 between the East India Company and King of Nepal following the Anglo-Nepalese War of 1814-16. The signatory for Nepal was Raj Guru Gajraj Mishra aided by Chandra Sekhar Upadhaya the signatory for the Company was Lieutenant Colonel Paris Bradshaw.

**Q.22)** Which of the following "**Governor-General of India**" was responsible for suppression of thugs in India?

- a) Lord Warren Hastings
- b) Lord William Bentinck
- c) Lord Hastings
- d) Lord Dalhousie

#### ANS) B

**Explanation:** The name of **Lord William Bentinck** is still cherished in India for suppression of the Thugs. The thugs, i.e., cheats were a sect of hereditary assassins and robbers who lived by preying upon innocent and defenseless travelers.

**Q.23)** Which of the following statements is/are correct about the "General Committee of Public Instruction"?

- 1. It had the responsibility to grant one lakh of rupees for education.
- 2. All the members of the committee were Europeans.

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



#### ANS) C

**Explanation:** General Committee of Public Instruction.

**Statement 1 is correct**: In 1823, the Governor-General-in Council appointed a "General Committee of Public Instruction", which had the responsibility to grant one lakh of rupees for education.

**Statement 2 is correct**: The **committee consisted of 10(ten) European members,** of which Lord Macaulay was the president. The committee decided to spend major portions from the grant for the improvement of oriental literature.

Q.24) Which of the following statements is/are correct about "Indigo Riots"?

1. Riots were started in Bengal and spread throughout the country.

2. "Neel Darpan" play vividly portrays the oppression by planters upon indigo farmers. 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

#### ANS) B

#### Explanation: Indigo Riots.

**Statement 1 is incorrect**: Indigo was a commercial crop forced upon the peasantry by the Zamindars and British planters in the Zamindari areas of eastern India. At one point indigo cultivation was considered to be a symbol of India's slavery. Finally, in 1860 the terribly oppressed indigo peasants launched "Non-Cultivation of indigo" movements. Beginning with the ryots of Govindpur village in Nadia district of Bengal, the indigo strikes rapidly spread to other areas of Bengal. By the spring of 1860, it totally covered all the indigo districts of Bengal.

**Statement 2 is correct:** The indigo peasants got tremendous support from the intelligentsia and the press, as well as from the missionaries of Bengal. Outstanding in this respect was the role of Harish Chandra Mukherjee editor of Hindu Patriot. **Dina Bandhu Mitra's play 'Neel Darpan' was to gain great fame for vividly portraying the oppression by planters upon indigo farmers**.

Q.25) Which of the following statements is/are correct about "Mahalwari system"?

1. Mahal or village is a fiscal unit to a collect rent.

2. Mahalwari system prevailed in North-western, Central and Bombay provinces.

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

#### ANS) A

**Explanation:** Mahalwari system.

**Statement 1 is correct:** The settlement was **directly made with the village or Mahal by the Settlement Officers**, who fixed the rent with the consultation of Lambardar and the rent to be paid by the cultivating tenants. The system was known as Mauzawari in United Provinces, Malguzari in the Central Provinces, and village or mahali settlement in pre-independent Punjab. **Mahal simply defined as a fiscal unit** was a local area coincides with a large or forms a part of village or includes several parts of villages.



Statement 2 is incorrect: Mahalwari system covered the most fertile tract of British India including Ganga-Jamuna Doab, major areas of Agra and Awadh Provinces, North Western Provinces, old Banares, the Ceded and Conquered districts and Later on it was extended to Central Provinces and the British Punjab. The Ryotwari system of land revenue was instituted in the late 18th century by Sir Thomas Munro, Governor of Madras in 1820. This was practiced in the Madras and Bombay areas, as well as Assam and Coorg provinces. In this system, the peasants or cultivators were regarded as the owners of the land. They had ownership rights, could sell, mortgage or gift the land.

Q.26) "The Indian War of Independence -1857" book is written by which of the following?

- a) Lala Hardayal
- b) Subhash Chandra Bose
- c) Madama Cama
- d) V.D. Savarkar

# ANS) D

**Explanation: Savarkar** attempted to look at the incidents of 1857 from the Indian point of view. A leading revolutionary himself, he was attracted and inspired by the burning zeal, the heroism, bravery, suffering and tragic fate of the leaders of 1857, and he decided to reinterpret the story and to relate it in full with the help of all the material available to him at the time. He spent days and months at the India Office Library studying the period. Savarkar wrote this book originally in Marathi and completed writing it in 1908. As it was impossible to get this book published in India, the manuscript was returned back to Savarkar. Attempts to get this book published in Germany also failed. Some Indian students staying in India House translated this book into English. Finally, **this work was published in Holland in 1909, under the title "The Indian War of Independence – 1857"**.

Q.27) The term "India Office" is related to which of the following?

- a) Court-of-Directors
- b) Board-of-Directors
- c) Secretary of State-in-Council
- d) Viceroy Executive Council

# ANS) C

**Explanation:** Under the Act of 1858, the Secretary of State became the Constitutional advisor of the crown in all matters relating to India. **The establishment of the Secretary of State-in-Council was commonly known as the India office**.

Q.28) Which of the following **crops** were introduced by Britishers in India?

- 1. Beet root
- 2. Tomato
- 3. Guava

Select the correct answer using the code given below:

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

ANS) B

**Explanation:** Crops introduced by **Britishers**:



- **Pseudo cereals**: oat.
- **Grain legumes**: black bean, pea.
- Fiber crops: cotton.
- **Vegetables**: leek, satawar, **beet root**, cauliflower, celery, sweet pepper, chicory, squash, carrot, orange type, lettuce, **tomato**, sweet pea.

Q.29) Which of the following Acts were passed during the tenure of Viceroy "Lord Lytton"?

- 1. The Royal Titles Act
- 2. The Vernacular Press Act
- 3. The Arms Act
- 4. The Factory Act

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 1, 2 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

#### ANS) A

**Explanation:** Lord Lytton during his tenure, a **Royal Titles Act** conferring on the queen Victoria the title of the Empress of India was passed and a magnificent Delhi Darbar was organized in 1877 in which Queen Victoria was adorned with title Qaiser-i-Hind. Aligarh College was founded in 1877 and the **Vernacular Press act, Arms act were passed in 1878**.

Q.30) "Northcote- Trevelvan Reforms" is related to which of the following?

- a) British Army reforms
- b) Primary Health reforms
- c) Tribal forest regulations
- d) Civil service reforms

#### ANS) D

**Explanation:** The second half of the 19th century saw the reform of the civil service and establishment of the fundamental pattern. The last century the main trend in the history and development of the civil service has been the movement towards integration into a single service, with common conditions of employment common traditions and standards the modern civil service may be said to be built up as a result of the suggestions made in the **Northcote - Trevelyan report on the organization of the permanent civil service** which was presented to parliament in 1854.



# Polity

- Q.1) Which of the following is/are "legislative powers" of President in India?
- 1. He can summon or prorogue and dissolve the Lok Sabha.
- 2. He can preside over the joint sitting of both the houses of Parliament.
- 3. He can address the Parliament at the commencement of the first session of each year.

Select the correct answer from the code given below:

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

#### Ans) C

**Explanation:** Legislative powers of President.

- He can **summon or prorogue** the Parliament and **dissolve** the Lok Sabha.
- He can also **summon a joint sitting** of both the Houses of Parliament, which is **presided over by the Speaker** of the Lok Sabha.
- He can address the Parliament at the commencement of the first session after each general election and the first session of each year.

Q.2) "Article 72" of Indian constitution is related to which of the following?

- a) Pardoning Powers of President
- b) Extent of executive power of the Union
- c) Discharge of President's functions in other contingencies
- d) Council of ministers to aid and advice President

#### Ans) A

**Explanation: Article 72** of the Constitution empowers the **President to grant pardons** to persons who have been tried and convicted of any offence in all cases where the:

- Punishment or sentence is for an offence against a Union Law;
- Punishment or sentence is by a court martial (military court); and
- Sentence is a sentence of death.

Q.3) Consider the following statements with respect to "National Integration Council":

1. It was constituted in 1971 by Indira Gandhi.

2. Prime Minister is the chairman of the council.

Which of the statement given above is/are correct?

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

#### Ans) A

#### **Explanation: National Integration Council**.

**Statement 1 is incorrect**: The National Integration Council (NIC) was **constituted in 1961**, following a decision taken at a **national conference on "unity in diversity"**, convened by the Central government, at New Delhi.



**Statement 2 is correct**: NIC consisted of the **prime minister as chairman**, central home minister, chief ministers of states, seven leaders of political parties, the **chairman of the UGC**, two educationists, the commissioner for SCs and STs and seven other persons nominated by the prime minister.

**Q.4)** Consider the following statements with respect to **"Southern African Customs Union (SACU)"**:

- 1. SACU is the world's oldest customs union.
- 2. Botswana, Kenya, Namibia, South Africa and Swaziland are the member countries of the SACU.

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

#### Ans) A

#### Explanation: Southern African Customs Union (SACU).

**Statement 1 is correct**: The Southern African Customs Union (SACU), an African regional economic organization, is the **world's oldest customs union**, founded in 1910.

Statement 2 is incorrect: Its members include Botswana, Lesotho, Namibia, South Africa, and Swaziland. The five member states maintain a common external tariff, share customs revenues and coordinate policies and decision-making on a wide range of trade issues.

Q.5) Which of the following is/are "Specialized Agencies" of United Nations (UN)?

- 1. Food and Agriculture Organization (FAO)
- 2. International Monetary Fund (IMF)
- 3. United Nations Industrial Development Organization (UNIDO)
- 4. The United Nations Conference on Trade and Development (UNCTAD)

Choose the correct answer from the code from code given below:

- a) 1, 2, 3 and 4
- b) 1, 3 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2 and 3 only

#### Ans) D

**Explanation:** UN specialized agencies are international organizations that coordinate their work with the United Nations through negotiated agreements. There are **currently 17 specialized agencies**:

- Food and Agriculture Organization (FAO)
- International Civil Aviation Organization (ICAO)
- International Fund for Agricultural Development (**IFAD**)
- International Labour Organization (ILO)
- International Maritime Organization (IMO)
- International Monetary Fund (**IMF**)
- International Telecommunications Union (ITU)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- United Nations Industrial Development Organization (UNIDO)
- Universal Postal Union (**UPU**)



World Bank Group:

- IBRD: International Bank for Reconstruction and Development
- **IDA**: International Development Association
- **IFC**: International Finance Corporation
- World Health Organization (**WHO**)
- World Intellectual Property Organization (WIPO)
- World Meteorological Organization (WMO)
- World Tourism Organization (**UNWTO**)

Q.6) Which of the following are contained in the form of oath of the Governor of India?

- 1. To faithfully execute the office
- 2. To preserve, protect and defend the Constitution and the law
- 3. To devote himself to the service and well-being of the state
- 4. To uphold the sovereignty and integrity of India

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 1, 3 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

# Ans) A

**Explanation:** Oath of the Governor: Before entering upon his office, the governor has to make and subscribe to an oath or affirmation. In his oath, the governor swears:

(a) to faithfully execute the office;

(b) to preserve, protect and defend the Constitution and the law; and

(c) to devote himself to the service and well-being of the people of the state.

The oath of office to the governor is administered by the chief justice of the concerned state high court and in his absence, the senior-most judge of that court available. Every person discharging the functions of the governor also undertakes the similar oath or affirmation.

#### Q.7) Consider the following statements about "Notified area committee":

1. It is established by a notification in the government Gazette.

2. At least half of the members in the notified area committee are elected.

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 notified area committee is created for the administration of two types of areas—a fast developing town due to industrialisation, and a town which does not yet fulfil all the conditions necessary for the constitution of a municipality, but which otherwise is considered important by the state government. Since it is established by a notification in the government gazette, it is called as notified area committee.

**Statement 2 is Incorrect:** Its powers are almost equivalent to those of a municipality. But unlike the municipality, it is an entirely nominated body, that is, all the members of a notified area committee including the chairman are nominated by the state government. Thus, it is neither an elected body nor a statutory body.



Q.8) Article 350B of Indian Constitution has provision relating to which of the following?

a) Language to be used in representations for redress of grievances.

- b) Special officer for linguistic minorities.
- c) Directive for development of the hindi language.
- d) Facilities for instruction in mother-tongue at primary stage.

## **Correct Answer: B**

**Explanation:** Originally, the Constitution of India did not make any provision with respect to the Special Officer for Linguistic Minorities. Later, the States Reorganisation Commission (1953-55) made a recommendation in this regard. Accordingly, the Seventh Constitutional Amendment Act of 1956 inserted a new Article 350-B in Part XVII of the Constitution.

Q.9) Which of the following country is **not** a member of **Treaty of Asuncion**?

- a) Brazil
- b) USA
- c) Argentina
- d) Uruguay

## **Correct Answer: B**

**Explanation:** Mercosur is a regional integration process. It was created in 1991 by the Treaty of Asunción, which was signed by the heads of state of Argentina, Brazil, Paraguay, and Uruguay. Several other countries were later admitted as associate members, and in 2006 the presidents of the four member countries approved full membership for Venezuela. Mercosur is headquartered in Montevideo, Uruguay.

Q.10) Which of the following conventions has Not been signed by India?

- 1. Nuclear non-proliferation Treaty (NPT)
- 2. Comprehensive test ban treaty (CTBT)

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

#### Ans) C

**Explanation:** The foreign policy of India is opposed to arms race and advocates disarmament, both conventional and nuclear. India has been using the UNO platform to check the arms race and to achieve disarmament. India took the initiative of holding a sixnation summit at New Delhi in 1985 and made concrete proposals for nuclear disarmament.

However, by not signing the Nuclear Non-proliferation Treaty (NPT) of 1968 and the Comprehensive Test Ban Treaty (CTBT) of 1996, India has kept its nuclear options open. India opposes NPT and CTBT due to their discriminatory and hegemonistic nature. They perpetuate an international system in which only five nations (USA, Russia, China, UK and France) can legitimately Posses nuclear weapons.

**Q.11)** Which of the following statements is/are correct about the '**Regulating Act of 1773**'? 1. The Act laid the foundations of central administration in India.

2. The Act provided for the establishment of a Supreme Court at Calcutta and Madras.

3. The Act permitted the servants of the Company to participate in private trade.

Select the correct answer using the code given below:



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

# ANS) A

**Explanation:** Features of the Regulating act of 1773:

- It designated the Governor of Bengal as the 'Governor-General of Bengal' and created an Executive Council of four members to assist him. The first such Governor-General was Lord Warren Hastings.
- It made the governors of Bombay and Madras presidencies subordinate to the governor-general of Bengal (Centralization), unlike earlier, when the three presidencies were independent of one another.
- It provided for the **establishment of a Supreme Court at Calcutta (1774)** comprising one chief justice and three other judges.
- It **prohibited** the servants of the Company from engaging in any private trade or accepting presents or bribes from the 'natives'.
- It **strengthened the control of the British Government** over the Company by requiring the Court of Directors (governing body of the Company) to report on its revenue, civil, and military affairs in India.

**Q.12)** With reference to the '**Constituent Assembly**', which of the following statements is/are **NOT** correct?

1. It was constituted according to the principles of Cripps mission.

2. The representatives of princely states were elected by the people on limited franchise.

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

#### ANS) C

**Explanation:** The Constituent Assembly.

**Statement 1 is incorrect**: The Constituent Assembly was constituted in November 1946 under the scheme formulated by the **Cabinet Mission Plan**.

**Statement 2 is incorrect**: The representatives of princely states were to be **nominated** by the heads of the princely states.

Q.13) Which of the following is/are 'unitary features' of Indian union?

- 1. Single Constitution
- 2. Integrated Judiciary
- 3. Flexibility of Constitution

Select the correct answer using the code given below:

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

#### ANS) D

**Explanation:** The Indian Constitution also contains a large number of unitary or non-federal features, viz., a strong Centre, single Constitution, single citizenship, flexibility of



Constitution, integrated judiciary, appointment of state governor by the Centre, all-India services, emergency provisions, and so on.

# **Q.14)** With reference to the 'Indian Constitution', which of the following features is/are borrowed from Australian Constitution?

- 1. Freedom of trade.
- 2. Joint sitting of the two Houses of Parliament
- 3. The language used in the Preamble

Select the correct answer using the code given below:

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

## ANS) D

**Explanation:** The features borrowed from Australian Constitution are:

- Concurrent List
- Freedom of trade
- Commerce and intercourse
- Joint sitting of the two Houses of Parliament
- The language used in the Preamble

**Q.15)** With reference to the 'Preamble', which of the following words is/are found in the **Original Preamble**?

- 1. Justice
- 2. Liberty
- 3. Fraternity
- 4. Socialist

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 1, 3 and 4 only
- c) 1, 2 and 3 only
- d) 1, 2, 3 and 4

#### ANS) C

**Explanation:** The Preamble is called the introduction letter of the Indian Constitution. The preamble was amended by the 42nd Constitutional Amendment Act in 1976, in which three new words Socialist, Secular, and Integrity were added.

Q.16) 'Article 3' of Indian constitution is related to which of the following?

- a) Citizenship
- b) Name and territory of the union
- c) Formation of new states
- d) Definition of state

#### ANS) C

**Explanation:** Article 3 authorizes the Parliament to:

- form a new state by separation of territory from any state or by uniting two or more states or parts of states or by uniting any territory to a part of any state,
- increase the area of any state,
- diminish the area of any state,



- alter the boundaries of any state, and
- alter the name of any state.

# Q.17) The term 'Coffee Club' is related to which of the following?

a) Informal group of coffee exporting countries.

- b) Informal group to promote UN permanent security membership.
- c) Informal group that is holding back reforms to the United Nations Security Council.
- d) Informal group to promote indigenous coffee production.

## ANS) C

**Explanation:** An informal "coffee club", comprising 40-odd member states, has been instrumental in holding back reforms to the United Nations Security Council over the past six years. Most members of the club are middle-sized states who oppose bigger regional powers grabbing permanent seats in the UN Security Council. The prime movers of the club include Italy, Spain, Australia, Canada, South Korea, Argentina and Pakistan. While Italy and Spain are opposed to Germany's bid for Security Council's permanent membership, Pakistan is opposed to India's bid. Similarly, Argentina is against Brazil's bid and Australia opposes Japan's. Canada and South Korea are opposed to developing countries, often dependent on their aid, wielding more power than them at the UN.

Q.18) 'Article 267' of Indian Constitution is related to which of the following?

- a) Consolidated fund of India
- b) Public Account of India
- c) Contingency fund of India
- d) National Disaster Fund of India

# ANS) C

**Explanation:** The Constitution of India provides for the following three kinds of funds for the Central government:

- 1. Consolidated Fund of India (Article 266)
- 2. Public Account of India (Article 266)
- 3. Contingency Fund of India (Article 267)

**Q.19)** With reference to the '**Department of Political and Peace-building Affairs (DPPA)**', which of the following statements is/are correct?

- 1. It plays a central role in United Nations efforts to prevent deadly conflict and build sustainable peace around the world.
- 2. It was established on 1 January 2019 following the reform of the United Nations peace and security infrastructure.

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

#### ANS) C

Explanation: Department of Political and Peace-building Affairs (DPPA).

Statement 1 is correct: The Department of Political and Peace-building Affairs (DPPA) plays a central role in United Nations efforts to prevent deadly conflict and build sustainable peace around the world. DPPA monitors and assesses global political developments with an eye to detecting potential crises and devising effective responses. The Department provides

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support to the Secretary-General and his envoys in their peace initiatives, as well as to UN political missions around the world.

**Statement 2 is correct**: The Department was established on 1 January 2019 following the reform of the United Nations peace and security infrastructure, which brought together the former Department of Political Affairs (DPA) and the United Nations Peace-building Support Office.

**Q.20)** With reference to the **'UN Capital Development Fund (UNCDF)**', which of the following statements is/are correct?

- 1. It promotes financial inclusion in least developed countries.
- 2. UNCDF contributes to SDG 1 on eradicating poverty and SDG 17 on the means of implementation.

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

#### ANS) C

**Explanation:** UN Capital Development Fund (UNCDF): The UN Capital Development Fund (UNCDF) **makes public and private finance work for the poor** in the world's 47 least developed countries.

**Statement 1 is correct**: UNCDF's financing models work through two channels: **financial inclusion** that expands the opportunities for individuals, households, and small businesses to participate in the local economy, providing them with the tools they need to climb out of poverty and manage their financial lives; and by showing how localized investments—through fiscal decentralization, innovative municipal finance, and structured project finance—can drive public and private funding that underpins local economic expansion and sustainable development.

**Statement 2 is correct**: By strengthening how finance works for poor people at the household, small enterprise, and local infrastructure levels, **UNCDF contributes to SDG 1** on eradicating poverty and SDG 17 on the means of implementation.

**Q.21)** With reference to the **"Constitutional importance of the Regulating Act, 1773**", which of the following statements is/are correct?

- 1. The Act made it crystal clear that East India Company (EIC) was a Political Organization whose functions were also political in nature.
- 2. The Act considerably curtailed the patronage of the Company by making appointments of the first Governor-General and his Councilors, the Chief Justice and other Judges.

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

#### ANS) C

Explanation: Constitutional importance of the Regulating Act, 1773.

**Statement 1 is correct**: For the first time, it was recognized that the **East India Company** was not a mere commercial body. The **Act made it crystal clear that it was a Political Organization whose functions also were political in nature**.



Statement 2 is correct: The Act considerably curtailed the patronage of the Company by making appointments of the first Governor-General and his Councilors, the Chief Justice and other Judges. In future also, such nominations were subject to the ratification of the Crown.

**Q.22)** Which of the following statements is/are correct about "working of Constituent Assembly"?

- 1. The Constituent Assembly held its first meeting on December 9, 1946.
- 2. All parties including Muslim league attended the assembly.
- 3. Dr Sachchidanand Sinha, was elected as the temporary President of the Assembly, following the Japanese practice.

Select the correct answer using the code given below:

a) 1 only

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

#### ANS) A

**Explanation:** The **Constituent Assembly held its first meeting on December 9, 1946**. The **Muslim League boycotted the meeting and insisted on a separate state of Pakistan**. The meeting was thus attended by only 211 members. **Dr Sachchidanand Sinha**, the oldest member, was elected as the temporary President of the Assembly, following the French practice.

Q.23) Which of the following words is/are found in "Objectives Resolution"?

- 1. Sovereign
- 2. Republic
- 3. Justice
- 4. Integrity
- 5. World peace

Select the correct answer using the code given below:

- a) 1, 2, 3 and 4 only
- b) 1, 3, 4 only
- c) 1, 3, 4 and 5 only
- d) 1, 2, 3, 4 and 5

#### ANS) D

**Explanation:** On December 13, 1946, Jawaharlal Nehru moved the historic "Objectives Resolution" in the Assembly. It laid down the fundamentals and philosophy of the constitutional structure.

- "This Constituent Assembly declares its firm and solemn resolve to proclaim India as an **Independent Sovereign Republic** and to draw up for her future governance a Constitution
- Where in shall be guaranteed and secured to all the people of India **justice**, social, economic and political; equality of status of opportunity, and before the law; freedom of thought, expression, belief, faith, worship, vocation, association and action, subject to law and public morality;
- Where by shall be maintained the **integrity** of the territory of the Republic and its sovereign rights on land, sea and air according to justice and the law of civilized nations; and



• This ancient land attains its rightful and honored place in the world and makes its full and willing contribution to **the promotion of world peace** and the welfare of mankind."

**Q.24)** Which of the following Amendment Act of Indian Constitution is also known as "**Mini-Constitution**" of India?

a) 23<sup>rd</sup> Amendment Act, 1969

b) 35th Amendment Act, 1974

c) 42<sup>nd</sup> Amendment Act, 1976

d) 44th Amendment Act, 1978

# ANS) C

**Explanation: 42nd Amendment Act, 1976** is one of the most important amendments to the Indian Constitution. It was enacted by Indian National Congress headed by Indian Gandhi then. Due to the large number of amendments this act has brought to the Indian Constitution, it is also known as 'Mini-Constitution.'

Q.25) Which of the following statements is/are correct about "State Public Service Commission (SPSC)"?

- 1. The chairman of a SPSC is appointed and removed by the President of India.
- 2. The chairmen of a SPSC hold the office for a term of six years or until they attain the age of 65 years.

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

# ANS) D

Explanation: State Public Service Commission.

Statement 1 is correct: Although the chairman and members of a SPSC are appointed by the governor, they can be removed only by the president (and not by the governor). Statement 2 is correct: The chairman and members of the Commission hold office for a term of six years or until they attain the age of 62 years, whichever is earlier (in the case of UPSC, the age limit is 65 years).

Q.26) Which of the following comes under the definition of state (Article 12)?

1. Government of India and Government of states.

- 2. Statutory authorities.
- 3. Non statutory authorities.

Select the correct answer using the code given below:

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

#### ANS) D

**Explanation:** The term State has been used in different provisions concerning the fundamental rights. Hence, Article 12 has defined the term for the purposes of Part III. According to it, the State includes the following:



- **Government and Parliament of India**, that is, executive and legislative organs of the Union government.
- **Government and legislature of states**, that is, executive and legislative organs of state government.
- **All local authorities**, which is, municipalities, panchayats, district boards, improvement trusts, etc.
- All other authorities, that is, **statutory or non-statutory authorities** like LIC, ONGC, SAIL, etc.

**Q.27)** With reference to the "**Indra Sawhney Case**", which of the following elements was declared as Basic feature/structure of Indian Constitution?

- 1. Rule of Law.
- 2. Supremacy of the Constitution.
- 3. Welfare state.

Select the correct answer using the code given below:

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

# ANS) A

**Explanation:** In **Indra Sawhney Case** (1992) (popularly known as the Mandal Case), the Supreme Court declared "**Rule of Law**" is the Basic Structure/element of Indian Constitution.

**Q.28) "ActNow is a global call to individual action on climate change**" is related to which of the following?

- a) WEF
- b) UN
- c) World Bank
- d) None

ANS) B

**Explanation: ActNow is the United Nations' global call to individual action on climate change**. The campaign is a critical part of the UN's coordinated effort to raise awareness, ambition, and action for climate change and accelerate implementation of the Paris Agreement.

Q.29) Recently, which of the following country led a UN resolution to set up a separate convention on cybercrime?

- a) Israel
- b) Iran
- c) China
- d) Russia

#### ANS) D

**Explanation:** The Russian proposal entitled "Countering the use of information and communications technologies for criminal purposes" was recently put forth in the United Nations General Assembly (UNGA). India voted in favour of a **cybercrime resolution led by Russia** in a committee of the United Nations General Assembly. The resolution seeks to set up new cyber norms considered as counter alternative to the US backed Budapest Accord.



Q.30) The term "2010 Strategic Concept" is related to which of the following?

a) NATO

- b) Warsaw Pact
- c) Nuclear Non-Proliferation Treaty (NPT)
- d) START treaty

# ANS) A

**Explanation:** Strategic Concepts lay down the Alliance's core tasks and principles, its values, the evolving security environment and the Alliance's strategic objectives for the next decade. The **2010 Strategic Concept** defines NATO's cores tasks as: collective defense, crisis-management and cooperative security.

**Q.31)** With reference to the "**Constituent Assembly**", which of the following statements is/are correct?

- 1. It was recommended by Cabinet Mission for the purpose of framing a new Constitution.
- 2. With the passing of the Indian Independence Act of 1947, the Constituent Assembly became a sovereign body.

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

#### ANS) C

**Explanation:** The Constituent Assembly.

**Statement 1 is correct**: The **Cabinet Mission of 1946** consisting of three British Cabinet Ministers – Lord Pethic Lawrence, Sir Stafford Cripps and Mr. Alexander, **recommended the setting up of a Constituent Assembly** for the purpose of framing a new Constitution. **Statement 2 is correct**: Initially, as the Constituent Assembly was brought about by the British Government it could not be called a sovereign body and its powers were limited. However, with the **passing of the Indian Independence Act of 1947, the Constituent Assembly became a sovereign body** and it was free to frame a Constitution as it pleased. The Indian Independence Act of 1947 also empowered the Constituent Assembly to frame laws for India until the new Constitution came in to force.

**Q.32)** The Indian National Congress called it a "*slave constitution that attempted to strengthen and perpetuate the economic bondage of India*". The above statement describes which of the following Act?

a) Act of 1909 (Morley-Minto reforms).

- b) The Government of India Act of 1919.
- c) The Government of India Act of 1935.
- d) The Indian Independence Act of 1947.

#### ANS) C

**Explanation: The Government of Indian Act was passed by the British parliament in 1935 and came into effect in 1937**. It was based on a report by a Joint Select Committee, led by Lord Linlithgow, set up by the two houses of the British parliament. The report, in turn, was the result of the Joint Committee's scrutiny of the 'White Paper' – a **scheme of constitutional proposals** - prepared by the British government close on the heels of the Round Table conferences. Except for the National Liberal Federation, most political parties in India took a negative view of the Act. The Indian National Congress called it a '*slave* 



# constitution that attempted to strengthen and perpetuate the economic bondage of India'.

**Q.33)** "Constituent Assembly appointed a number of committees to deal with different tasks of constitution-making". Which of the following **committees were headed by Jawaharlal Nehru**?

- 1. Union Powers Committee.
- 2. Union Constitution Committee.
- 3. States Committee.
- 4. Provincial Constitution Committee.

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1, 3 and 4 only
- d) 1, 2, 3 and 4

# ANS) A

**Explanation:** The Constituent Assembly appointed a number of committees to deal with different tasks of constitution-making. Out of these, eight were major committees and the others were minor committees. The names of these committees and their chairmen are given below:

- Union Powers Committee Jawaharlal Nehru
- Union Constitution Committee Jawaharlal Nehru
- Provincial Constitution Committee Sardar Patel
- Drafting Committee Dr. B.R. Ambedkar
- Advisory Committee on Fundamental Rights, Minorities and Tribal and Excluded Areas Sardar Patel
- Rules of Procedure Committee Dr. Rajendra Prasad
- States Committee (Committee for Negotiating with States) Jawaharlal Nehru
- Steering Committee Dr. Rajendra Prasad

**Q.34)** Which of the following features in Indian Constitution has/have been borrowed from the "**Canada's Constitution**"?

1. Advisory jurisdiction of the Supreme Court.

2. Office of Governor.

3. Appointment of state governors by the Centre.

Select the correct answer using the code given below:

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

# ANS) B

**Explanation:** The **Indian Constitution is known as a bag of borrowings** and draws it features from the Constitutions of many countries. Dr BR Ambedkar rightly said that it was created after ransacking the known Constitutions across the world. The features borrowed from Canada's Constitution are:

- Federation with a strong Centre
- Vesting of residuary powers in the Centre
- Appointment of state governors by the Centre
- Advisory jurisdiction of the Supreme Court

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The **Office of Governor** is borrowed from the Government of India Act of 1935.

**Q.35)** Which of the following right(s) is/are covered under **Article 21 of the Indian Constitution**?

- 1. Right to travel abroad.
- 2. Right to move freely throughout the territory of India.
- 3. Right to reside and settle in any part of the territory of India.
- Select the correct answer using the code given below:
- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

# ANS) A

**Explanation:** The Right to move freely throughout the territory of India and Right to reside and settle in any part of the territory of India comes under Protection of six rights regarding freedom (Article 19). **Right to travel abroad comes under Protection of life and personal liberty (Article 21)**.

# **Q.36)** With reference to the "right of minorities to establish and administer educational institutions of their choice", which of the following rights is/are correct?

1. To choose its governing body.

- 2. To appoint teaching and non-teaching staff.
- 3. To set up its own fee structure.
- Select the correct answer using the code given below:

a) 1 only

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

#### ANS) D

**Explanation:** In a Judgement delivered in the Secretary of Malankara Syrian Catholic College case (2007), the Supreme Court has summarized the general principles relating to establishment and administration of minority educational institutions in the following way: The right of minorities to establish and administer educational institutions of their choice comprises the following rights:

- To choose its governing body in whom the founders of the institution have faith and confidence to conduct and manage the affairs of the institution;
- To appoint teaching staff (teachers/lecturers and headmasters/ principals) as also non-teaching staff; and to take action if there is dereliction of duty on the part of any of its employees;
- To admit eligible students of their choice and to set up a reasonable fee structure; and
- To use its properties and assets for the benefit of the institution.

#### Q.37) Which of the following is NOT a fundamental duty?

- a) To uphold and protect the sovereignty, unity and integrity of India.
- b) To promote harmony and the spirit of common brotherhood.
- c) To promote the welfare of the people by securing a social order.
- d) To safeguard public property and to abjure violence.



#### ANS) C

**Explanation:** According to Article 51 A, it shall be the duty of every citizen of India:

- to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- to cherish and follow the noble ideals that inspired the national struggle for freedom;
- to uphold and protect the sovereignty, unity and integrity of India;
- to **promote harmony and the spirit of common brotherhood** amongst all the people of India transcending religious, linguistic and regional or sectional diversities and to renounce practices derogatory to the dignity of women;
- to value and preserve the rich heritage of the country's composite culture;
- to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures;
- to develop scientific temper, humanism and the spirit of inquiry and reform;
- to safeguard public property and to abjure violence;

To promote the welfare of the people by securing a social order permeated by justice social, economic and political—and to minimize inequalities in income, status, facilities and opportunities is a **Directive Principles of State Policy**.

Q.38) Which of the following Acts have been "passed by Parliament on the request of the states"?

1. The Prize Competition Act, 1955.

2. The Wild Life (Protection) Act, 1972.

3. The Air (Prevention and Control of Pollution) Act, 1981.

Select the correct answer using the code given below:

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

#### ANS) B

Explanation: When the legislatures of two or more states pass resolutions requesting the Parliament to enact laws on a matter in the State List, then the Parliament can make laws for regulating that matter. A law so enacted applies only to those states which have passed the resolutions. However, any other state may adopt it afterwards by passing a resolution to that effect in its legislature. Such a law can be amended or repealed only by the Parliament and not by the legislatures of the concerned states. Some examples of laws passed under the above provision are Prize Competition Act, 1955; Wild Life (Protection) Act, 1972; Water (Prevention and Control of Pollution) Act, 1974; Urban Land (Ceiling and Regulation) Act, 1976; and Transplantation of Human Organs Act, 1994.

**Q.39)** Consider the following pairs:

List	:		Subject			
1. Union List	:		Public health			
2. State List	:		Regulation of mines and mineral development			
3. Concurrent Lis	st :		Electricity			
Which of the above pair(s) is/are correctly matched?						
a) 1 only						
b) 1 and 2 only						
c) 2 and 3 only						
d) 1, 2 and 3						
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#### ANS) C

**Explanation:** Public health and sanitation, Regulation of mines and mineral development comes under State list. Electricity is in Concurrent list.

**Q.40)** With reference to the "**Union Public Service Commission (UPSC)**", which of the following statements is/are correct?

- 1. The UPSC consists of a chairman and other members appointed by the president of India.
- 2. The Constitution authorizes the Parliament to determine the conditions of service of the chairman and other members of the Commission.

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

#### ANS) A

**Explanation:** Union Public Service Commission.

Statement 1 is correct: The UPSC consists of a chairman and other members appointed by the president of India. The Constitution, without specifying the strength of the Commission has left the matter to the discretion of the president, who determines its composition. Usually, the Commission consists of nine to eleven members including the chairman.

**Statement 2 is incorrect**: The Constitution also **authorizes the president** to determine the conditions of service of the chairman and other members of the Commission.



# Science and Technology

**Q.1)** Which of the following statements is/are correct about **"Nuclear Fuel Complex"** (NFC)?

- 1. NFC is the only organization in India which caters to the fuel requirements of nuclear power reactors.
- 2. NFC is the only organization in the world today to have a comprehensive manufacturing cycle from ore to core.

Choose the correct answer from the code given below:

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

#### Ans) C

#### **Explanation:** Nuclear Fuel Complex.

**Statement 1 is correct**: **Nuclear Fuel Complex, Hyderabad** is an industrial unit of the Department of Atomic Energy, Government of India. NFC is the **only organization in India** which caters to the fuel requirements of nuclear power reactors.

Statement 2 is correct: Nuclear Fuel Complex, Hyderabad was conceived in late 60's as a pivotal industrial arm of the Department of Atomic Energy with the mandate to fuel the nuclear power program of Govt. of India. An ISO certified organization, NFC is the only organization in the world today to have a comprehensive manufacturing cycle from ore to core, involving processing of both Uranium & Zirconium streams under the same roof.

Q.2) Consider the following statements with respect to "Vitrification technology":

1. It can be used to contain High Level Waste (HLW) of Nuclear Spent Fuel.

2. At present India imports this technology from Russia.

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

#### Ans) A

#### **Explanation:** Vitrification Technology.

**Statement 1 is correct: The immobilisation of HLW** requires the formation of an insoluble, solid waste form that will remain stable for many thousands of years. In general borosilicate glass has been chosen as the medium for dealing with separated HLW. The stability of ancient glass for thousands of years highlights the suitability of borosilicate glass as a matrix material. This type of process, referred to as **vitrification**. Most HLW, other than spent fuel itself, arises in a liquid form from the reprocessing of spent fuel. This **HLW comprises highly-radioactive fission products and some transuranic elements with long-lived radioactivity**. To allow incorporation into the glass matrix the waste is initially calcined (dried) to a granular powder. The product is then incorporated into molten glass, poured into a robust stainless steel canister about 1.3 metres high, and allowed to cool, forming a solid matrix. The containers are then welded closed and are ready for storage and final disposal.



**Statement 2 is incorrect**: India is one of the few countries to have mastered the technology of vitrification. Over the years **BARC has developed the technology for vitrification of HLW**. India has a unique distinction of having operating **vitrification plant at Tarapur and Trombay**. In our existing plant at Trombay vitrification process is essentially batch operation consisting of heating and fusing of pre-concentrated waste and glass forming additives and is carried out in melters based on induction heating.

- Q.3) "CODIS" is related to which of the following?
- a) Food Preservation Index
- b) DNA index system
- c) Carbon Dioxide measurement Index
- d) Biomass Index

#### Ans) B

**Explanation:** CODIS is the acronym for the **Combined DNA Index System** and is the generic term used to describe the **FBI's program of support for criminal justice DNA databases as well as the software used to run these databases**. The National DNA Index System or NDIS is considered one part of CODIS, the national level, containing the DNA profiles contributed by federal, state, and local participating forensic laboratories.

Q.4) "JUICE Mission" will be launched by which of the following Space Agency?

- a) NASA
- b) ROSCOSMOS
- c) French Space Agency
- d) European Space Agency

#### Ans) D

**Explanation:** JUICE, also known as the **JUpiter ICy moons Explorer**, is a **European Space Agency mission intended to explore Jupiter and three of its icy moons: Europa, Callisto and Ganymede**. A single orbital spacecraft, with no lander, will be the first to orbit Ganymede, and one of a handful of spacecraft to visit the Jupiter system since the 1970s. JUICE is targeted to launch in June 2022 aboard an Ariane 5 spacecraft. It will take more than 7.5 years to get to Jupiter, using gravity assists from Venus and Earth to speed the spacecraft up and get it into the outer solar system. The spacecraft is expected to be inserted in Jupiter's orbit in January 2030, starting a 2.5-year observation session of Jupiter's moons, as well as the planet's atmosphere and magnetosphere.

Q.5) Consider the following statements with respect to "Prithvi Missile":

- 1. India's indigenously developed ballistic missile produced under the Integrated Guided Missile Development Program (IGMDP).
- 2. It is a surface-to-surface short range ballistic missile.

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

#### Ans) C

**Explanation:** Prithvi Missile.

**Statement 1 is correct**: The Prithvi was India's first indigenously developed ballistic missile produced under the Integrated Guided Missile Development Program (IGMDP).



**Statement 2 is correct: Prithvi is a road-mobile, surface to surface short range ballistic missile** (SRBM) powered by a single-stage, two engines, and liquid-fuel. Development of the Prithvi began in 1983, and it was first tested fired on February 25, 1988.

Q.6) The term 'Pat-INFORMED' is related to which of the following?

- a) WEF
- b) World Bank
- c) AIIB
- d) WIPO

# ANS) D

**Explanation:** The **Patent Information Initiative for Medicines (Pat-INFORMED)** provides a service to the global health community, particularly those involved in procurement of medicines, by facilitating easy access to medicine patent information. The data is provided directly by the biopharmaceutical companies and **hosted by WIPO**.

**Q.7)** Which of the following treaty/convention is related to the Protection of the Olympic Symbol against the use for commercial purpose?

- a) Nairobi Treaty
- b) Washington Treaty
- c) Paris Convention
- d) Rome Convention

# ANS) A

**Explanation:** All States party to the **Nairobi Treaty** are under the obligation to protect the Olympic symbol – five interlaced rings – against use for commercial purposes (in advertisements, on goods, as a mark, etc.) without the authorization of the International Olympic Committee.

**Q.8)** 'Project Devil' was initiated by Defense Research and Development Laboratory (DRDL) to develop which of the following?

- a) Indigenous air-craft carrier
- b) Stealth Frigates

c) Surface Radars

d) Missile development

#### ANS) D

**Explanation:** During the 1970s, the DRDL started two other **missile programs** Project Valiant and Project Devil. Project Valiant attempted to develop a long-range ballistic missile and Project Devil tried to reverse engineer a Soviet SA-2 surface-to-air missile.

Q.9) Which of the following countries have signed Civil Nuclear Agreement with India?

- 1. Czech Republic
- 2. Japan
- 3. United Kingdom
- 4. Namibia
- 5. Israel

Select the correct answer using the code given below:

a) 1, 2 and 3 only

b) 1, 2, 3 and 5 only



c) 2, 3, 4 and 5 only

d) 1, 2, 3 and 4 only

#### ANS) D

**Explanation:** India's civil nuclear accords aim to develop mutually beneficial economic, scientific and technical cooperation for the peaceful uses of nuclear energy. **There are 14 countries with which India has forged such agreements:** Argentina, Australia, Canada, Czech Republic, France, Japan, Kazakhstan, Mongolia, Namibia, Russia, South Korea, United Kingdom, US and Vietnam. A central tenet of these agreements is the focus on the "peaceful purposes" of nuclear power; this entails the "use of information, nuclear material, equipment or components in such fields as research, power generation, medicine, agriculture and industry."

**Q.10)** With reference to the '**Heavy water (D20)**', which of the following statements is/are correct?

- 1. It is used as both coolant and moderator in the Pressurized Heavy Water Reactors (PHWRs).
- 2. India is the largest importer of Heavy Water in the world.

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

#### ANS: A

**Explanation:** Heavy water is nothing but D2O. Its uses are as a coolant as well as moderator in Pressurized Heavy Water Reactors (PHWRs). India is the largest producer of best quality Heavy Water in the world and is not only meeting in-house Heavy water requirements for the Indian Nuclear Power Program but is also exporting to various countries.

#### Q.11) The term 'sesbania rostrata' is related to which of the following?

- a) Green manure crop
- b) Wild banana
- c) High yield mango
- d) Wild tamarind

#### ANS) A

**Explanation:** Using radiation induced mutations and/or hybridization, **Sesbania rostrata crops is being carried out by Baba Atomic Research Centre (BARC)**. A late flowering mutant (TSR-1) in Sesbania has been developed with the potential to produce more biomass before flowering and offers an excellent material for **green manuring**.

Q.12) The term 'MELISA' is related to which of the following?

- a) Satellite mission
- b) Blood test
- c) Malaria eradication in Eastern Africa
- d) None

ANS) B



**Explanation:** MELISA is an **optimized, clinically validated blood test** which establishes allergy to a number of different metals from a single blood test. MELISA can also diagnose active Lyme disease.

Q.13) Which of the following statement is NOT correct about Shourya Missile?

- a) It is a hypersonic missile.
- b) Shourya missile is the land-variant of India's K-15 missile.
- c) Its operational range is more than 3000km.
- d) None.

#### ANS) C

**Explanation:** The Shaurya is a **hypersonic surface-to-surface ballistic missile**, developed by Defence Research & Development Organization (DRDO) of India. It is one of the top 10 missiles in its class with advanced navigation systems, propulsion system and control technologies. The **Shaurya is actually a land variant of Indian K-15 submarine launched missile**. The Shaurya is 6.2 t canister launched missile, with a 10 m length, and 0.74 m diameter. It boasts **an intermediate operational range of 700 to 1900 km** and a payload weight of 180 to 1000 kg.

**Q.14)** With reference to the '**Sophia- human-like robot**', which of the following statements is/are correct?

1. She is the world's first robot citizen.

2. She is the first robot Innovation Ambassador for the UNDP.

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

#### ANS) C

Explanation: Hanson Robotics' most advanced human-like robot, Sophia, personifies our dreams for the future of AI. As a unique combination of science, engineering, and artistry, Sophia is simultaneously a human-crafted science fiction character depicting the future of AI and robotics, and a platform for advanced robotics and AI research. The character of Sophia captures the imagination of global audiences. She is the world's first robot citizen and the first robot Innovation Ambassador for the United Nations **Development Programme**.

Q.15) Which of the following statements is/are correct about 'Protection of Plant Varieties and Farmers' Rights Act'?

1. The act was enacted in 2001.

2. Protection of Plant Varieties and Farmers' Rights Authority was established in 2005. Select the correct answer using the codes given below:

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

ANS) C

**Explanation:** Protection of Plant Varieties and Farmers' Rights Act.



Statement 1 is correct: India enacted the Protection of Plant Varieties and Farmers' **Rights Act in 2001** for the protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new plant varieties.

Statement 2 is correct: Protection of Plant Varieties and Farmers' Rights Authority was established in New Delhi in November, 2005 as per provision under the Act. The Authority has made landmark achievement in last ten years. Registration of plant varieties was started by the Authority with twelve crop species in 2007 and now 114 crop species are covered under the umbrella of PPV&FRA for granting IPR.

Q.16) Which of the following statements is/are correct about "Central Electricity Authority"?

1. It is a statutory organisation.

2. It formulates National Electricity Plan every five years.

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

#### ANS) C

**Explanation:** Central Electricity Authority.

Statement 1 is correct: Central Electricity Authority (CEA) is an organization originally constituted under Section 3(1) of the repealed Electricity (Supply) Act, 1948, since substituted by Section 70 of the Electricity Act, 2003.

**Statement 2 is correct**: Formulate **National Electricity Plan every five years** for Optimum Utilization of available resources for power generation is one of the quality objectives of CEA.

Q.17) "Azeotropic Distillation Technology" is related to which of the following?

- a) Shale gas
- b) Natural gas
- c) Methane extraction
- d) Ethanol production

#### ANS) D

**Explanation:** The **technology for manufacture of ethanol** (dehydrated/Anhydrous Alcohol) involves special processing of alcohol/rectified spirit. The technology for ethanol production from rectified spirit using **azeotropic distillation** is well established in India as a number of plants exist in the country based on this technology. This technology involves distillation system employing benzene as the third component has been in use in India since World War II.

Q.18) "Linear Fresnel technology" is related to which of the following?

- a) Wind energy
- b) Solar energy
- c) Thermal energy
- d) Geo-thermal energy

#### ANS) B

**Explanation:** The Linear Fresnel technology uses long, flat or slightly curved mirrors to focus **sunlight** onto a linear receiver located at a common focal point of the reflectors. The

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receiver runs parallel to and above the reflectors and collects the heat to boil water in the tubes, generating high-pressure steam to power the steam turbine (water/direct steam generation, no need for heat exchangers). The reflectors make use of the Fresnel lens effect, which allows for a **concentrating mirror with a large aperture and short focal length**. This reduces the plant costs since sagged-glass parabolic reflectors are typically much more expensive. Since the optical efficiency as well as the working temperatures is considerably lower than with other CSP concepts, saturated steam conditions have to be considered for this technology.

Q.19) Which of the following statements is/are correct about "Fuel Cells technology"?

- 1. Fuel cells avoid the thermal bottleneck.
- 2. Direct emissions from a fuel cell vehicle are just water and a little heat.
- 3. A PEM (Proton Exchange Membrane) cell uses hydrogen gas (H2) and oxygen gas (O2) as fuel.

Select the correct answer using the code given below:

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

# ANS) D

**Explanation:** A fuel cell is a device that converts chemical potential energy (energy stored in molecular bonds) into electrical energy. By converting chemical potential energy directly into electrical energy, **fuel cells avoid the "thermal bottleneck" (a consequence of the 2nd law of thermodynamics**) and are thus inherently more efficient than combustion engines, which must first convert chemical potential energy into heat, and then mechanical work. **Direct emissions from a fuel cell vehicle are just water and a little heat**. This is a huge improvement over the internal combustion engines litany of greenhouse gases. **A PEM (Proton Exchange Membrane) cell uses hydrogen gas (H2) and oxygen gas (O2) as fuel**.

Q.20) "Hague Express Database" is related to which of the following?

- a) International criminal database
- b) Terrorist database
- c) Industrial designs database
- d) Trade disputes database

#### ANS) C

**Explanation:** The weekly updated Hague Express Database includes bibliographical data and – as far as international registrations governed exclusively or partly by the 1999 and/or by the 1960 Act(s) of the Hague Agreement are concerned – **reproductions of industrial designs relating to published international registrations** bearing a registration date as from January 3, 1985.

**Q.21)** Which of the following statements is/are correct about "**Biotechnology Innovation Organization (BIO)**"?

- 1. BIO is the world's largest trade association representing biotechnology companies, academic institutions, and state biotechnology centers.
- 2. It is hosted by UN WIPO.

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

#### ANS) A

Explanation: BIO is the world's largest trade association representing biotechnology companies, academic institutions, state biotechnology centers and related organizations across the United States and in more than 30 other nations. BIO members are involved in the research and development of innovative healthcare, agricultural, industrial and environmental biotechnology products. BIO also produces the BIO International Convention, the world's largest gathering of the biotechnology industry, along with industry-leading investor and partnering meetings held around the world.

Q.22) The term "SODAR" is related to which of the following?

- a) Ocean Depth
- b) River erosion
- c) Wind speed
- d) None

#### ANS) C

**Explanation:** As the wind energy industry expands and larger-scale projects are developed, wind turbines are becoming larger in rotor diameter as well as in hub height. Accordingly it is becoming difficult to accurately assess the wind resource with standard cup anemometers mounted on standard height (60m) meteorological (met) towers. For this reason, attention is being directed to other methods of **wind speed measurement**, such as **SODAR (Sonic Detection and Ranging)**. Since the SODAR can measure wind speed as a function of height and is relatively easy to transport and assemble, the technology is very appealing.

Q.23) Which of the following statements is/are correct about "National Atmospheric Research Laboratory (NARL)"?

1. NARL is an autonomous research laboratory fully funded by the Department of Earth Science.

2. It is located at Kochi, Kerala.

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

#### ANS) D

**Explanation: Statement 1 is incorrect**: NARL is an **autonomous research laboratory fully funded by the Department of Space**, Government of India and involved in carrying out fundamental and applied research in Atmospheric and Space Sciences. It had its humble beginning in 1992 as the National Mesosphere-Stratosphere-Troposphere (MST) Radar Facility. Over the years several complementary techniques such as Rayleigh/Mie lidars, wind profilers have been added.

Statement 2 is incorrect: National Atmospheric Research Laboratory (NARL) located at Gadanki near Tirupati, Andhra Pradesh.



Q.24) Which of the following statements is/are correct about "Multi Application Solar Telescope (MAST)"?

- 1. MAST is be used for detailed observation of the solar activity and magnetic field.
- 2. The MAST is located in the Udaipur Solar Observatory which comes under the Physical Research Laboratory (PRL).

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

# ANS) C

**Explanation:** The Multi Application Solar Telescope (MAST).

Statement 1 is correct: Multi Application Solar Telescope (MAST), a telescope for the detailed study of the solar activity including its magnetic field.

Statement 2 is correct: MAST has recently been operationalised at the Udaipur Solar Observatory (USO) of Physical Research Laboratory (PRL), an autonomous unit of the Department of Space. MAST is an off-axis Gregorian-Coude telescope with a 50 cm aperture.

Q.25) Which of the following country/countries is/are part of the "**Thirty Meter Telescope** (TMT)"?

- 1. USA
- 2. India
- 3. Russia
- 4. Belgium
- 5. Japan

Select the correct answer using the code given below:

- a) 1, 2 and 5 only
- b) 2, 3 and 4 only
- c) 1, 2, 3 and 4 only
- d) 1, 2, 3, 4 and 5

# ANS) A

Explanation: The Thirty Meter Telescope is being designed and developed by the TMT International Observatory LLC (TIO). The TIO is а nonprofit international partnership between the California Institute of Technology, the University of California, the National Institutes of Natural Sciences of Japan, the National Astronomical Observatories of the Chinese Academy of Sciences, the Department of Science and Technology of India, and the National Research Council (Canada). The Association of Universities for Research in Astronomy (AURA) is a TIO Associate and major funding for TMT has been provided by the Gordon & Betty Moore Foundation. The TIO will also run the TMT operations once the telescope is completed.

# Q.26) The term "Honey Bee Network (HBN)" is related to which of the following?

- a) Honey Production Centres
- b) Pollinators network
- c) Disaster prediction network
- d) Traditional Knowledge and Innovative Ideas

#### ANS) D

**Explanation:** Established in 1986-87, the **Honey Bee Network (HBN) is a volunteer based network that seeks innovative ideas and Traditional Knowledge (TK) produced at the grassroots level by individuals and communities and disseminates them to the wider ecosystem**. HBN is an amalgamation of like-minded people, be it innovators, farmers, scholars, academicians, policy makers and entrepreneurs, institutions and civil society. The Network signifies a philosophy of discourse that stands on the three pillars: the discourse that is authentic, accountable and fair.

# Q.27) Consider the following statements regarding "Trade Related Intellectual Property Rights (TRIPS) and TRIPS Plus":

- 1. Trade Related Intellectual Property Rights (TRIPS) Agreement is related to minimum standards in the international rules governing patents.
- 2. TRIPs Plus is higher levels of protection norms demanded by the developed countries.
- 3. Like TRIPs, TRIPs Plus also covers under WTO guidelines.
- Which of the statements given above is/are correct?
- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

#### ANS) B

Explanation: Trade Related Intellectual Property Rights (TRIPS) and TRIPs Plus.

Statement 1 is correct: TRIPs Agreement stipulates minimum standards in the international rules governing patents, including that on pharmaceuticals or medicines. Member countries have to enact the necessary legal framework by including these minimum regulations. These standards include, amongst others, a minimum patent period of 20 years; provision for product patents; and the protection to pharmaceutical test data from 'unfair commercial use'.

Statement 2 is correct: TRIPs Plus are higher levels of protection norms demanded by the developed countries that are not prescribed by the WTO's TRIPs regime.

Statement 3 is incorrect: Although they are named as 'TRIPS-Plus,' they are not formally related to TRIPS. Rather, the term is used to indicate that these requirements go beyond the minimum standards imposed by TRIPS. Many developing countries who are members of FTAs are under pressure to enact these tougher conditions in their patent laws.

Q.28) The term "Bioprospecting" is related to which of the following?

- a) Nagoya Protocol
- b) Montreal Protocol
- c) Kyoto Protocol
- d) None

#### ANS) A

**Explanation:** Biodiversity prospecting or bioprospecting is the systematic search for biochemical and genetic information in nature in order to develop commercially-valuable products for pharmaceutical, agricultural, cosmetic and other applications. The Nagoya Protocol potentially helps enforcing rights over genetic resources and associated Traditional Knowledge (TK) in user countries and improves transparency and clarity in the access legislation of provider countries. In turn, these measures could indirectly help to generate additional funds and incentives for biodiversity conservation at the national and local levels.



**Q.29)** Which of the following statements is/are correct about "**Nuclear Power Programme**" of India?

- 1. Nuclear Power programme of India consists of four-stages.
- 2. The second stage of the Nuclear Programme consists of setting up of fast breeder reactors backed by thorium-based fuel fabrication plants.

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

# ANS) D

**Explanation:** Nuclear Power Programme.

**Statement 1 is incorrect**: India's **three-stage nuclear power programme** was formulated by Homi Bhabha in the 1950s to secure the country's long term energy independence, through the use of uranium and thorium reserves found in the monazite sands of coastal regions of South India.

Statement 2 is incorrect: In the second stage, fast breeder reactors (FBRs)[moderators not required] would use plutonium-239, recovered by reprocessing spent fuel from the first stage, and natural uranium. In FBRs, plutonium-239 undergoes fission to produce energy, while the uranium-238 present in the fuel transmutes to additional plutonium-239.

**Q.30)** Arrange the following acts regarding electricity supply and power generation in chronological order:

- 1. The Indian Electricity Act
- 2. The Electricity (Supply) Act
- 3. The Energy Conservation Act
- 4. The Electricity Regulatory Commission Act

Select the correct answer using the code given below:

- a) 1-2-3-4
- b) 2-3-1-4
- c) 1-3-4-2
- d) 1-2-4-3

# ANS) D

**Explanation:** Historical Background of Legislative Initiatives regarding electricity and energy supply in India are:

- The Indian Electricity Act, 1910,
- The Electricity (Supply) Act, 1948,
- The Electricity Regulatory Commission Act, 1998 and
- The Energy Conservation Act, 2001.

# Q.31) Consider the following statements about "National Mission for Enhanced Energy Efficiency (NMEEE)":

- 1. Performance, Achieve and Trade (PAT) Scheme aims to accelerate the shift to energyefficient appliances in designated sectors through innovative measures.
- 2. Market Transformation for Energy Efficiency (MTEE) aims to enhance cost-effectiveness in improving the energy efficiency in energy-intensive industries through certification of energy savings.

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

#### ANS) D

Explanation: National Mission for Enhanced Energy Efficiency (NMEEE).

Statement 1 is incorrect: PAT scheme is a market based mechanism to enhance costeffectiveness in improving the energy efficiency in energy-intensive industries through the certification of energy savings, which can be traded.

Statement 2 is incorrect: MTEE aims to accelerate the shift to energy-efficient appliances in designated sectors through innovative measures to make the products more affordable.

Q.32) The term "Coradia iLint" is related to which of the following?

- a) Passenger Train
- b) Rocket Launch Vehicle
- c) Deep sea submersible vehicle
- d) Drones

#### ANS) A

**Explanation:** The **Coradia iLint is the world's first passenger train powered by a hydrogen fuel cell, which produces electrical power for traction**. This zero-emission train emits low levels of noise, with exhaust being only steam and condensed water. The iLint is special for its combination of different innovative elements: clean energy conversion, flexible energy storage in batteries, and smart management of traction power and available energy. Specifically designed for operation on non-electrified lines, it enables clean, sustainable train operation while ensuring high levels of performance. The iLint was designed by Alstom teams in Salzgitter (Germany), our centre of excellence for regional trains, and in Tarbes (France), centre of excellence for traction systems.

# Q.33) Which of the following statements is/are correct about "Electronic Vaccine Intelligence Network (eVIN)"?

- 1. It is a unique innovation that brings together technology, people and processes to strengthen the vaccine supply chain by digitizing information on vaccine stocks and storage temperatures.
- 2. It is designed and implemented by UNDP with the partnership of Ministry of Health and Family Welfare.

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

#### ANS) C

**Explanation:** In partnership with the **Ministry of Health and Family Welfare, Government of India, UNDP aims to support the Universal Immunization Programme** through designing and implementing the Electronic Vaccine Intelligence Network (eVIN), a **unique innovation that brings together technology, people and processes to strengthen the vaccine supply chain by digitising information on vaccine stocks** and storage temperatures. Supported by GAVI-the Vaccine Alliance, the health systems strengthening project aims to streamline and regularize the vaccine flow network by



ensuring data-driven and efficient management of the immunization supply chain. The goal is to ensure equity in easy and timely availability of vaccines to all children.

# Q.34) The "Advanced Technology Vessel (ATV) Project" is related to which of the following?

- a) INS Arihant
- b) Tejas aircraft
- c) Air-craft carrier
- d) Brahmos Missile project

#### ANS) A

**Explanation:** The plan for the **Advanced Technology Vessel (ATV) until the late 1980s was to build an SSN - a fast-moving deep-diving nuclear-powered attack submarine**, which would hunt surface ships. Around the time India leased a Charlie-I class nuclearpowered attack submarine from the Soviet Union, which happened in 1988, planning veered towards building a submarine carrying ballistic missiles. The hull design was lengthened and the SSN quietly transformed into an SSBN. The **Project code named Advanced Technology Vessel (ATV) Project took 25 years for completion**. It spawned a new era in the field of cooperation between DRDO, BARC, Navy, PSUs and private industry in which these organizations synergized their efforts to achieve a significant technological and strategic milestone. The Arihant class( nuclear-powered ballistic missile submarines)-INS Arihant (S73), INS Aridhaman (S74) are built for the Indian Navy by Navy Shipbuilding Centre, Visakhapatnam. The miniaturised naval version of the reactor was designed and built by the Bhabha Atomic Research Centre (BARC) at the Indira Gandhi Centre for Atomic Research (IGCAR) in Kalpakkam.

Q.35) Which of the following statements is/are correct about the Airborne Warning and Control System (AWACS)?

1. It is an airborne radar system designed to detect aircraft at short range and command and control, battle space management and communications.

2. PHALCON AWACS is indigenously developed by DRDO and Centre for Airborne Systems. 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

#### ANS: A

**Explanation:** Airborne Warning and Control System (AWACS).

**Statement 1 is correct**: AWACS is **distinctive radar domes mounted on the fuselage of the aircraft, which provide the Alliance with air surveillance**, command and control, battle space management and communications.

**Statement 2 is incorrect**: PHALCON AWACS is **developed by Israel** and it is used by Indian Air Force.

Q.36) Which of the following event/events produces the "Gravitational Waves"?

- 1. Colliding black holes.
- 2. Massive stars exploding at the end of their lifetimes.
- 3. Colliding neutron stars.

Select the correct answer using the code given below:

a) 1, 2 and 3



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

#### ANS) A

**Explanation:** The strongest gravitational waves are produced by cataclysmic events such as colliding black holes, supernovae (massive stars exploding at the end of their lifetimes), and colliding neutron stars. Other waves are predicted to be caused by the rotation of neutron stars that are not perfect spheres, and possibly even the remnants of gravitational radiation created by the Big Bang.

Q.37) Which of the following statements is/are correct about "Sublimation"?

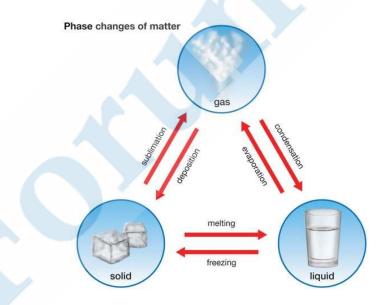
- 1. It is a process in which solids directly change to gases.
- 2. Camphor is an example of solids that undergo sublimation.

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

#### ANS) C

**Explanation:** The process in which solids directly change to gases is known as sublimation. This occurs when solids absorb enough energy to completely overcome the forces of attraction between them. Dry ice and Camphor are examples of solids that undergo sublimation.



Q.38) Which of the following statements is/are correct about "Oxides of Nitrogen"?

- 1. Nitrous oxide is a white colour gas with a mild, pleasant odour and a sweet taste is used as an anesthetic for minor operations.
- 2. Nitric oxide is one of the environmental pollutants generated by internal-combustion engines.

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

#### ANS) B

Explanation: Oxides of Nitrogen.

**Statement 1 is incorrect**: Nitrogen (N) forms oxides in which nitrogen exhibits each of its positive oxidation numbers from +1 to +5. Nitrous oxide (dinitrogen oxide), N2O, is formed when ammonium nitrate, NH4NO3, is heated. **This oxide, which is a colourless gas with a mild, pleasant odour and a sweet taste**, is used as an anesthetic for minor operations, especially in dentistry. It is called laughing gas because of its intoxicating effect. It is also widely used as a propellant in aerosol cans of whipped cream.

**Statement 2 is correct**: Gaseous nitric oxide is the most thermally stable oxide of nitrogen and is also the simplest known thermally stable paramagnetic molecule—i.e., a molecule with an unpaired electron. It is one of the environmental pollutants generated by internal-combustion engines, resulting from the reaction of nitrogen and oxygen in the air during the combustion process.

Q.39) Which of the following statements is/are correct about "Styrene"?

- 1. It is primarily a synthetic material and easily dissolves in water.
- 2. It is used in making plastics, paints, automobile parts, food containers and disposal cups.
- 3. Low levels of styrene also occur naturally in a variety of foods such as fruits, vegetables, nuts, beverages, and meats.

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) 1, 2 and 3

#### ANS) B

**Explanation: Styrene is primarily a synthetic chemical**. It is also known as vinyl benzene, ethenyl benzene, cinnamene, or phenyl ethylene. It's a colorless liquid that evaporates easily and has a sweet smell. It often contains other chemicals that give it a sharp, unpleasant smell. It dissolves in some liquids but doesn't dissolve easily in water. Billions of pounds are produced each year to make products such as rubber, plastic, insulation, fiberglass, pipes, automobile parts, food containers, and carpet backing. Most of these products contain styrene linked together in a long chain (polystyrene) as well as unlinked styrene. Low levels of styrene also occur naturally in a variety of foods such as fruits, vegetables, nuts, beverages, and meats.

Q.40) Which of the following statements is/are correct about "Lithium"?

- 1. Lithium along with Hydrogen and Helium are the only elements created at the birth of the Universe.
- 2. Lithium salts were the first drugs approved by the Food and Drug Administration to treat mania and depression.

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

ANS) C



**Explanation:** Lithium.

**Statement 1 is correct**: The only chemical elements created at the beginning of our universe were hydrogen, helium and lithium, the three lightest atoms in the periodic table. These elements were formed throughout the universe as a hot gas.

**Statement 2 is correct**: Lithium makes up a mere 0.0007 percent of the Earth's crust, according to the Jefferson Lab of USA, and it's only found locked up in minerals and salts. **Those salts have the power to change the brain: Lithium salts were the first drugs approved by the Food and Drug Administration to treat mania and depression**, according to the National Institute of Mental Health.

Q.41) Which of the following statements is/are correct about "Arthropod"?

- 1. They are the smallest animal phylum-about 0.5% of all known animals in the world is part of this class.
- 2. Arthropods are warm blooded animals.

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

#### ANS) D

**Explanation:** Arthropod.

Statement 1 is incorrect: Arthropods are everywhere and are the largest animal phylum -- about 85% of all known animals in the world are part of this class. There are far more species of arthropods than there are species in all the other phylum's (phyla) combined. They are spiders, insects, centipedes, mites, ticks, lobsters, crabs, shrimp, crayfish, krill, barnacles, scorpions and many, many others.

**Statement 2 is incorrect**: Arthropods are **cold blooded** -- which means, their body temperature depends on the temperature of the environment surrounding them.

Q.42) Which of the following disease(s) primarily spread through "air"?

- 1. SARS-CoV-2
- 2. Chicken Pox
- 3. Diphtheria

Select the correct answer using the codes given below:

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

#### ANS) D

**Explanation:** Airborne diseases are those caused by pathogens and transmitted through the air as very small or aerosolized particles. Disease-causing pathogens are organisms that spread from an infected person to another through coughing, talking, and sneezing - even breathing and laughing! According to the U.S. Centers for Disease Control, flu droplets can travel up to six feet away! There are three main types of organisms that can cause airborne diseases, including viruses, bacteria, and fungi. Some examples of airborne diseases include the flu, tuberculosis, and valley fever. SARS-CoV-2, Chickenpox, Diphtheria and the measles can also be caused by airborne pathogens.



Q.43) Which of the following micro-organism(s) is/are "unicellular"?

- 1. Bacteria
- 2. Fungi
- 3. Protozoa

Select the correct answer using the code given below:

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

# ANS) D

**Explanation:** Unicellular Organisms.

- Bacteria are tiny, single-celled organisms that get nutrients from their environments.
- **Fungi live as either single-celled organisms or multi-cellular organisms**. Single-celled fungi are referred to as yeasts. The vast majority of fungi are multi-cellular. A fungus gets nutrition from plants, food, and animals in damp, warm environments.
- **Protozoa are one-celled organisms**, like bacteria. But they are bigger than bacteria and contain a nucleus and other cell structures, making them more like plant and animal cells.

Q.44) Which of the following statement is NOT correct about "Leishmaniasis"?

- a) There are 3 main forms of leishmaniases visceral (also known as kala-azar), cutaneous (the most common), and mucocutaneous.
- b) Leishmaniasis is caused by the bacterium Leishmania which are transmitted by the bite of infected female phlebotomine sandflies.
- c) The disease affects some of the poorest people on earth, and is associated with malnutrition, population displacement, poor housing, a weak immune system and lack of financial resources.
- d) Leishmaniasis is linked to environmental changes such as deforestation, building of dams, irrigation schemes, and urbanization.

# ANS) B

#### Explanation: Leishmaniasis.

- There are **3 main forms of leishmaniases** visceral (also known as kala-azar, which is and the most serious form of the disease), cutaneous (the most common), and mucocutaneous.
- Leishmaniasis is caused by the **protozoan Leishmania parasites** which are transmitted by the bite of infected female phlebotomine sandflies.
- The **disease affects some of the poorest people** on earth, and is associated with malnutrition, population displacement, poor housing, a weak immune system and lack of financial resources.
- **Leishmaniasis is linked to environmental changes** such as deforestation, building of dams, irrigation schemes, and urbanization.
- An estimated 700 000 to 1 million new cases aoccur annually.
- Only a small fraction of those infected by Leishmania parasites will eventually develop the disease.

Q.45) Which of the following statements is/are correct about "Campylobacter species"?

1. It is considered to be the most common bacterial cause of human gastroenteritis in the world.

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# **ForumIAS**

2. Campylobacter species can be killed by heat and thoroughly cooking food. 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

# ANS) C

**Explanation:** Campylobacter species.

**Statement 1 is correct**: The burden of food-borne diseases, including Campylobacteriosis, is substantial: every year almost 1 in 10 people fall ill and 33 million of healthy life years are lost. Food-borne diseases can be severe, especially for young children. Diarrhoeal diseases are the most common illnesses resulting from unsafe food, with 550 million people falling ill yearly (including 220 million children under the age of 5 years). Campylobacter is 1 of the 4 key global causes of diarrhoeal diseases. It is considered to be the most common bacterial cause of human gastroenteritis in the world.

Statement 2 is correct: Campylobacter species can be killed by heat and thoroughly cooking food. To prevent Campylobacter infections, make sure to follow basic food hygiene practices when preparing food.



# Reports & commissions

Q.1) The "Raleigh Commission" is related to which of the following?

- a) Universities
- b) Primary health
- c) Army reforms
- d) Tribal uprisings

#### ANS) A

**Explanation:** The Viceroy filled with imperialistic design was not in favor of giving any power to the Indians. He concluded the Indian Universities and the colleges were slowly becoming cradle of Propaganda against the Government. So, with an **idea to bring the Universities under control, Lord Curzon appointed Raleigh Commission under Sir Thomas Raleigh**. The Raleigh Commission had only one Indian member, Syed Hussain Belgrami. But when the Hindus protested about this, Justice Guru Das Banerjee was called from the High Court of Calcutta and made a member. This commission submitted its report in 1902 and this followed introduction of a Bill called Raleigh Bill. The **Raleigh Bill when became an act, it was called Indian Universities Act 1904**.

#### **Q.2)** Consider the following pairs:

Name of the Commission							
1. Campbell Commission	:	Education					
2. Fraser Commission	:	Currency					
3. Fowler Commission : Agriculture							
Which of the above given pair/pairs is/are correct?							
a) 1 only							
b) 2 and 3 only							
c) 1 and 3 only							
d) Nome							

d) None

#### ANS) D

**Explanation: Campbell Commission**: In 1865-66, a famine engulfed Orissa, Bengal, Bihar, and Madras and took a toll of nearly 20 lakhs of lives with Orissa alone loosing 10 lakh lives, since the famine was most severe in Orissa; it is called the Orissa famine. The Government officers though forewarned took no steps to meet the calamity. The Government adhered to the principles of free trade and the law of demand and supply, the Government did provide employment to the table booked men leaving the work of charitable relief to voluntary agency. But the famine proved a turning point in the **history of Indian** famines for it was followed by the appointment of a committee under the chairmanship of Sir George Campbell.

**Fraser Commission**: Lord Curzon set up a **Police Commission** under Sir Andrew Frazer in 1902-03. On the basis of recommendation of this commission, a basic structure of Indian domestic intelligence developed and remained almost same till 1947. He attached Department of Criminal Intelligence (DCI) to the Government of India while set up the Criminal Investigation Departments (CIDs) in the provinces of British India. In 1903, the Thugi and Dakaiti Department was abolished.

**Fowler commission**: The **Indian Currency Committee** or Fowler Committee was a government committee appointed by the British-run Government of India on 29 April 1898 to examine the currency situation in India.



**Q.3)** Which of the following committee/committees is/are related to **"Small Scale Industries"**?

- 1. S.S Kohli Committee
- 2. P L Tondon Committee
- 3. R N Malhotra Committee

Select the correct answer using the code given below:

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

#### ANS) A

**Explanation:** Small Scale Industries.

**S.S Kohli Committee**: To tackle the problem of **rehabilitation of potentially viable sick SSI units**, the RBI constituted a working group on November 25, 2000 under the chairmanship of Shri S.S. Kohli, the then chairman of Indian Banks Association, to look into the issue. The Working Group submitted its report in May, 2001. All the major recommendations of the working group have been accepted by the RBI, including a change in the definition of Sick SSI units, norms for deciding on the viability of sick units, etc. The revised definition would enable banks to take action at an early stage for revival of the units.

**P L Tondon Committee**: In 1974, a study group under the chairmanship of Mr. P. L. Tandon was constituted for framing guidelines for commercial banks for follow-up & supervision of bank credit for ensuring proper end-use of funds. The group submitted its report in August 1975, which came to be popularly known as Tandon Committee Report on Working Capital. Its main recommendations related to norms for inventory and receivables, the approach to lending, style of credit, follow ups & information system.

**R N Malhotra Committee**: In 1993, the Govt. of India set up a committee under the chairmanship of Shri. R N Malhotra, former Governor of **RBI** to propose recommendations for reforms in the insurance sector. The objective was to complement the reforms initiated in the financial sector.

**Q.4)** Which of the following is/are major "**sub-group of Chief Ministers**" constituted by NITI aayog?

- 1. Sub-group on Rationalization of Centrally Sponsored Schemes
- 2. Sub-group on Skill Development
- 3. Sub-group on Renewable energy
- Select the correct answer using the code given below:

a) 1 only

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

#### ANS) B

**Explanation:** The first meeting of the Governing Council of the NITI Aayog was held on 8th February, 2015 where the Hon'ble Prime Minister urged all Chief Ministers to work with the Centre to forge a model of cooperative federalism, whereby the Centre and the States – Team India – can come together to resolve differences, and chart a common course to progress and prosperity. In the spirit of cooperative federalism, therefore, the **Governing Council had decided that the NITI Aayog would constitute three major Sub-Groups of Chief Ministers**:



- RATIONALISATION OF CENTRALLY SPONSORED SCHEMES
- SKILL DEVELOPMENT
- SWACHH BHARAT ABHIYAN

In addition, it was also decided that the States will set up two Task Forces under the leadership of the NITI Aayog:

- Agriculture Development
- Poverty Elimination

#### Q.5) The "Tarkunde Committee" is related to which of the following?

- a) Agriculture
- b) Primary Health
- c) Financial Inclusion
- d) Electoral reforms

# ANS) D

**Explanation:** Jayprakash Narayan on behalf of the Citizens For Democracy had appointed a committee to study and report on scheme for **electoral reforms** in 1974. The members of the committee were V.M. Tarkunde, M.R. Masai, etc. and it is known as J.P. Committee or Tarkunde committee. The important recommendations of the **Tarkunde Committee** are as follows:

- The election commission should be a three member body.
- The minimum age of voting should be 18 years.
- The TV and radio should be placed under the control of autonomous statutory corporation.
- A **voter's council should be formed in as many constituencies** as possible which can help in free and fair election.

**Q.6)** Which of the following Standing Committee/Committees has the "**tenure of one** year"?

- 1. Business Advisory Committee
- 2. Committee of Privileges
- 3. Committee on Empowerment of Women
- 4. Committee on Government Assurances
- Select the correct answer using the code given below:
- a) 1, 2 and 3 only
- b) 2 and 3 only
- c) 3 and 4 only
- d) 1, 2, 3 and 4

#### ANS) C

**Explanation:** Broadly, the Parliamentary Committees may be classified into the following categories: (a) Financial Committees (b) Departmentally Related Standing Committees; (c) Other Parliamentary Standing Committees; and (d) Ad hoc Committees.



SI. No.	Name of Committee	No. of Members	Tenure	Members nominated or elected.
1.	Business Advisory Committee	15	Not fixed. Can continue in office till reconstituted.	
2.	Committee of Privileges	15	Not fixed. Can continue in office till reconstituted.	Do
3.	Committee on Absence of Members from the Sittings of the House.	15	1 year	Do
4.	Committee on Empowerment of Women		1 year	Nominated by the Speaker, Lok Sabha and the Chairman, Rajya Sabha
5.	Committee on Government Assurances	15	1 year	Nominated by the Speaker, Lok Sabha
6.	Committee on Papers Laid on the Table	15	1 year	Do
7.	Committee on Petitions	15	Not fixed. Can continue in office till reconstituted.	Do
8.	Committee on Private Members' Bills and Resolutions	15	1 year	Do

#### C. Other Standing Committees

Q.7) Which of the following statements is/are NOT correct about "International Science Council (ISC)"?

- 1. The ISC was created in 2018 as the result of a merger between the International Council for Science (ICSU) and the International Social Science Council (ISSC).
- 2. It is the only international non-governmental organization bringing together the natural and social sciences and the largest global science organization of its type.

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

#### ANS) D

**Explanation:** The **International Science Council (ISC)** is a non-governmental organization with a unique global membership that brings together 40 international scientific Unions and Associations and over 140 national and regional scientific organizations including Academies and Research Councils. The **ISC was created in 2018** as the result of a merger between the International Council for Science (ICSU) and the International Social Science Council (ISSC). It is the **only international non-governmental organization bringing together the natural and social sciences** and the largest global science organization of its type.

Q.8) "Budapest Treaty" is related to which of the following?

- a) Inventions involving microorganisms
- b) Olympics

c) Automobiles



d) Authors rights

# ANS) A

**Explanation:** Adopted in 1977, the **Budapest Treaty concerns a specific topic in the international patent process: microorganisms**. All states party to the Treaty are obliged to recognize microorganisms deposited as a part of the patent procedure, irrespective of where the depository authority is located. In practice this means that the requirement to submit microorganisms to each and every national authority in which patent protection is sought no longer exists.

Q.9) Which of the following statements is/are correct about the "Global Land Outlook (GLO)"?

- 1. It is published by UNCCD secretariat.
- 2. The GLO aims to communicate a new and transformative vision for land management policy, planning and practice at global and national scales.

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

# ANS) C

Explanation: Global Land Outlook (GLO).

**Statement 1 is correct**: The **Global Land Outlook (GLO)** is a strategic communications platform and associated publications of the **UNCCD secretariat** that demonstrates the central importance of land quality to human well-being. The **first edition of the Global Land Outlook was launched in September 2017 at the thirteenth Conference of the Parties to the UNCCD (COP13) in Ordos, China**.

**Statement 2 is correct**: The GLO aims to communicate a new and transformative vision for land management policy, planning and practice at global and national scales.

Q.10) The "World Wildlife Crime Report" is published by which of the following?

- a) United Nations Environmental Programme (UNEP)
- b) United Nations Office on Drugs and Crime (UNODC)
- c) International Union for Conservation of Nature (IUCN)
- d) Convention on International Trade in Endangered Species (CITES)

#### ANS) B

**Explanation:** The trafficking of wildlife is increasingly recognized as both a specialized area of organized crime and a significant threat to many plant and animal species. **The World Wildlife Crime Report (UNODC) takes stock of the present wildlife crime situation** with a focus on illicit trafficking of specific protected species of wild fauna and flora, and provides a broad assessment of the nature and extent of the problem at the global level. It includes a quantitative market assessment and a series of in-depth illicit trade case studies.

