# **ForumIAS**

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# **Prelims Marathon**

July, 2020

HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT

### History

- Q.1) Consider the following statements regarding the Mahalvari (Land Revenue Settlement) system:
- 1. It involved detailed surveys of fields and classification of lands according to soil.
- 2. The land assessments were fixed for a definite period.

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:** when the Company's rule was m ore securely established, the view gained ground that the State would benefit more from periodical settlements.

- Further, in certain parts of the Company's territories, viz., the U.P. (now Uttar Pradesh) and the Punjab, there were well organised village communities and, barring a portion of the U.P., there were no local chieftains or large farmers of land in this area.
- These areas thus presented a different problem, and settlement was concluded with village communities and the villagers were held jointly and severally responsible for the payment of revenue. This came to be known as the **Mahalwari system** of land revenue, as the land revenue was assessed on the 'mahal'.
- In some parts of Madras, the land revenue was directly settled with individual ryots in view of, the difficulty of making settlements with the whole villages. This initiated the ryotwari system which was later introduced in Bombay and other neighboring provinces.
- Both these systems—mahalwari and ryotwari involved detailed surveys of fields and classification of lands according to soil. The assessments were fixed not in perpetuity but for a definite period.
- **Q.2)** "We place a resident, who really is king of the country, whatever injunctions of non-interference he may act under. As long as the prince acts in perfect subservience, and does what is agreeable to the residents, that is, to the British Government, things go on quietly; they are managed without the resident appearing much in the administration of affairs ... but when anything of a different nature happens, the moment the prince takes a course which the British Government think wrong, then comes clashing and disturbance"- was said by which of the following?
- a) David Ricardo
- b) James Mill
- c) Lord Cornwallis
- d) Lord Wellesley

#### ANS: B

**Explanation:** This is what **James Mill**, the famous economist and political philosopher from Scotland, wrote about the **residents appointed by the Company**.

"We place a resident, who really is king of the country, whatever **injunctions** of non-interference he may act under. As long as the prince acts in perfect **subservience**, and does what is agreeable to the residents, that is, to the British Government, things go on quietly; they are managed without the resident appearing much in the administration of affairs ...

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but when anything of a different nature happens, the moment the prince takes a course which the British Government think wrong, then comes clashing and disturbance".

**Q.3)** The "**Policy of Paramountacy**" was initiated under which of the following Governor-General?

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

#### ANS: C

**Explanation:** Under **Lord Hastings** (Governor General from 1813 to 1823) a new policy of "paramountcy" was initiated.

- Now the Company claimed that its authority was paramount or supreme, hence its power was greater than that of Indian states.
- In order to protect its interests it was justified in annexing or threatening to annex any Indian kingdom.
- This view continued to guide later British policies as well.

Q.4) Who among the following is called as "Liberator of the Indian Press"?

- a) John Adams
- b) Lord William Bentinck
- c) Charles Metcalfe
- d) Lord Rippon

#### ANS: C

**Explanation: Charles Metcalfe** (Governor General – 1835 – 36) known as the "liberator of the Indian press".

- He repealed the Licensing regulation, 1823.
- During his tenure Printing Press grew rapidly.
- The new Metcalfe act 1835 required the publisher to follow a registration procedure and give a precise account of premises of publication.

Q.5) Which of the following pair (s) is/are correctly matched?

Organization : Founder

Dharma Sabha
 Raja Radhakant Deb
 Tattvabodhini Sabha
 Rabindranath Tagore
 Brahmo Samaj of India
 Rammohan Roy

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: A

**Explanation: Dharma Sabha**: The orthodox Hindu led by **Raja Radhakant Deb** organised the 'Dharma Sabha' with the object of countering the propaganda of BrahmoSamaj.

**Tatvabodhini Sabha**: **Debendranath Tagore**, father of Rabindranath Tagore founded the Tatvabodhini Sabha in 1839 to propagate Rammohun Roy's ideas. The Tatvabodhini Sabha and its organ the Tatvabodhini Patrika promoted a systematic study of India's past in Bengali language and helped spread rational outlook.

**Brahmo Samaj of India**: **Keshubsen** and his followers broke away from Brahmo samaj in 1866 and established what was called the 'Brahmo Samaj of India'.

Q.6) The "Life of Shivaji" book/publication was written by which of the following?

- a) Jyotirao Phule
- b) Bal Gangadhar Tilak
- c) Gopala Krishna Gokhale
- d) B. R. Ambedkar

#### ANS: A

**Explanation: Jyotirao Phule**, a gardener by caste who was fascinated by the founding principles of the United States, espoused a radical view of social change.

- Shivaji, to him, stood up not only to the tyranny of Aurangzeb that emanated from Agra, but also to the tyranny within Hindu society of its hereditary elite.
- Phule in his book/publication Life of Shivaji wanted the ordinary peasant to emulate Shivaji and stand up against every variety of oppression, domestic as well as foreign.

Q.7) "Swadesh Sevak Home" is related to which of the following National freedom initiative?

- a) Home rule movement
- b) Swadeshi movement
- c) Ghadr movement
- d) Non-cooperation movement

#### ANS: C

**Explanation:** The Ghadr Party was a revolutionary group organised around a weekly newspaper The Ghadr with its headquarters at San Francisco and branches along the US coast and in the Far East.

- These revolutionaries included mainly ex-soldiers and peasants who had migrated from the Punjab to the USA and Canada in search of better employment opportunities.
- They were based in the US and Canadian cities along the western (Pacific) coast.
- Pre-Ghadr revolutionary activity had been carried on by Ramdas Puri, G.D. Kumar, Taraknath Das, Sohan Singh Bhakna and Lala Hardayal who reached their in1911.
- To carry out revolutionary activities, the earlier activists had set up a 'Swadesh Sevak Home' at Vancouver and 'United India House' at Seattle. Finally in 1913, the Ghadr was established.

Q.8) Consider the following statements regarding the Karachi session (1931) of Congress:

- 1. Gandhi-Irwin pact was endorsed.
- 2. Goal of Purna Swaraj was reiterated.
- 3. Resolution on fundamental rights was adopted.

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: D

**Explanation:** In March 1931, a special session of the Congress was held at Karachi **to endorse the Gandhi-Irwin Pact**.

- Six days before the session (which was held on March 29) Bhagat Singh, Sukhdev and Rajguru were executed.
- Throughout Gandhi's route to Karachi, he was greeted with black flag demonstrations by the Punjab Naujawan Bharat Sabha, in protest against his failure to secure commutation of the death sentence for Bhagat and his comrades.
- While disapproving of and dissociating itself from political violence, the Congress admired the 'bravery' and 'sacrifice' of the three martyrs.
- The Delhi Pact or Gandhi-Irwin Pact was endorsed.
- The goal of purna swaraj was reiterated.
- Two resolutions were adopted-one on Fundamental Rights and the other on National Economic Programme- which made the session particularly memorable.

#### Q.9) Consider the following statements regarding the August Offer:

- 1. Complete independence as the objective for India.
- 2. Expansion of viceroy's executive council which would have a majority of Indians.
- 3. No future constitution to be adopted without the consent of minorities.

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: C

**Explanation:** Hitler's astounding success and the fall of Belgium, Holland and France put England in a conciliatory mood.

- As the war in Europe had undertaken a new turn, the dominant Congress leadership was again in a dilemma.
- Both Gandhi and Nehru strongly opposed the idea of taking advantage of Britain's position. The Congress was ready to compromise, asking the
- British government to let it form an interim government during the war period but the government was not interested.

The government came up with its own offer to get the cooperation of India in the war effort. Linlithgow announced the August Offer (August 1940) which proposed:

- **Dominion status** as the objective for India;
- **Expansion of viceroy's executive council** which would have a majority of Indians (who would be drawn from major political parties);
- **Setting up of a constituent assembly** after the war where mainly Indians would decide the constitution according to their social, economic and political conceptions, subject to fulfillment of the obligation of the government regarding defense, minority rights, treaties with States, all India services; and
- **No future constitution** to be adopted without the consent of minorities.

#### **Q.10)** Consider the following statements regarding the **Home Rule Movement**:

- 1. Tilak was set up his Home Rule League in April 1916 and it was restricted to Maharashtra (except Bombay city), Karnataka, Central Provinces and Berar.
- 2. Annie Besant was set up her league in September 1916 in Madras and covered the rest of India (including Bombay city).

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:** By early 1915, Annie Besant had launched a campaign to demand self-government for India after the war on the lines of white colonies.

- She campaigned through her newspapers, New India and Commonweal, and through public meetings and conferences.
- At the annual session of the Congress in 1915, the efforts of Tilak and Besant met with some success. It was decided that the Extremists be admitted to the Congress.
- Although Besant failed to get the Congress to approve her scheme of Home Rule Leagues, the Congress did commit itself to a programme of educative propaganda and to a revival of local-level Congress committees.
- Not willing to wait for too long, Besant laid the condition that if the Congress did not implement its commitments, she would be free to set up her own league—which she finally had to, as there was no response from the Congress.
- Tilak and Besant set up their separate leagues to avoid any friction.
- There was an informal understanding between both the leagues wherein Tilak's league worked in Maharashtra (except Bombay), Karnataka, Berar and the Central Provinces. Besant's league worked in the rest of the country.
- Tilak's league had its headquarters in Delhi. It had 6 branches. Besant's league had 200 branches and was a looser organisation compared to Tilak's.

#### Q.11) Which of the following is/are Paleolithic site (s) in India?

- 1. Pallavaram
- 2. Hunsgi valley
- 3. Bhimbetka

Select the correct answer using the code given below:

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

#### ANS: A

**Explanation:** Lower Palaeolithic tools are found in most parts of India, except in a few regions of the Ganges valley, southern Tamil Nadu and in the hilly areas of the Western Ghats.

Athirampakkam, Pallavaram and Gudiyam near Chennai, Hunsgi valley and Isampur in Karnataka, and Bhimbetka in Madhya Pradesh are some important Palaeolithic sites where the Acheulian tools are found.

**Q.12)** Which pre-historic **period** marked the beginning of agriculture and animal domestication?

- a) Paleolithic
- b) Mesolithic
- c) Neolithic
- d) Chalcolithic

#### ANS: C

**Explanation:** The Neolithic period marked the beginning of agriculture and animal domestication.

- It is an important phase in Indian history.
- Early evidence of Neolithic culture is found in the Fertile Crescent region of Egypt and Mesopotamia, the Indus region, the Ganges valley of India and also in China.
- Between 10,000 BCE to 5000 BCE, agriculture emerged in these regions, which led to several cultural developments.

#### Q.13) Which of the following feature (s) is/are prevalent in harappan towns?

- 1. Fortification
- 2. Grid pattern
- 3. Drainage system

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:** Harappa (Punjab, Pakistan), Mohenjo-Daro (Sindh, Pakistan), Dholavira, Lothal, and Surkotada (Gujarat, India), Kalibangan and Banawali (Rajasthan, India), and Rakhigarhi (Haryana, India) are the major cities in the Harappan period.

- Fortification, wellplanned streets and lanes and drainages are noticed in the Harappan towns.
- A civic authority perhaps controlled the planning of the towns.
- The Harappans used baked and unbaked bricks, and stones for construction.
- The towns had a grid pattern and drainages were systematically built.
- The houses were built of mud bricks while the drainages were built with burnt bricks. Houses had more than one floor.

#### **Q.14)** Which of the following sequence is correct about **Vedic literature**?

- a) Vedas Samhitas Brahmanas Upanishad
- b) Vedas Samhitas Upanishad Brahmanas
- c) Vedas Brahmanas Samhitas Upanishad
- d) Vedas Brahmanas Upanishad Samhitas

#### ANS: A

**Explanation:** The **Vedas** (Vid = to know, Vidya) are one of the earliest known texts to have been composed in India.

- The language of the Vedas is described as Vedic Sanskrit.
- The main collections of Vedic hymns are called **samhitas**. The Rig Vedic samhita is the earliest text.
- Each samhita has added texts called **brahmanas**, which have commentaries on the hymns and rituals.
- Each brahmana has an **aranyaka** (forest text) and an **upanishad**.

#### **Q.15)** Arrange the following **pottery ware culture** in chronological order:

- 1. Ochre Coloured Pottery Culture
- 2. Northern Black Polished Ware Culture
- 3. Painted Grey Ware Culture

Select the correct answer using the code given below:

- a) 1 2 3
- b) 2 3 1

- c) 1 3 2
- d) 2 1 3

#### ANS: C

**Explanation:** Ochre Coloured Pottery Ware culture is found in northern India dating to the Chalcolithic period.

- The **OCP** culture dates to 2600- 1200 BCE and is found in the Indo-Gangetic plain and may have had some associations with early Vedic culture.
- The Iron Age in North India coincides with the painted Grey Ware culture.
- The painted grey ware is dated to from 1100 to 800 BCE. The pottery was fine grey in colour with painted geometric designs.
- The painted grey ware laid the foundation of the early political formations. It correlates with the Kuru-Panchala kingdom known from the Vedic texts.
- The Painted Grey Ware cultural phase is followed by Northern Black Polished Ware culture (NBPW), which is associated with the Mahajanapada and Mauryan periods.

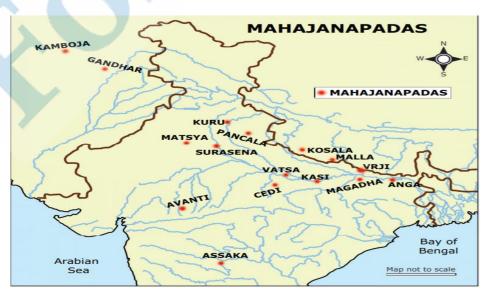
#### **Q.16)** Consider the following statements regarding the *Mahajanapadas*:

- 1. According to Buddhist and Jaina traditions, there were sixteen mahajanapadas.
- 2. Both monarchy and oligarchy nature of polity prevailed in mahajanapadas. 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: According to Puranic, Buddhist and Jaina traditions, there were sixteen mahajanapadas.

- The proto-states of the Gangetic region were known as janapadas and comprised chiefdoms, republics and small kingdoms.
- There were also ganasanghas or oligarchies, which were centred on clans. The Vrijjis were one of the best known of the gana-sanghas, and Vaishali was their capital in the Mithila region.
- The mahajanapadas on the Gangetic plains were all monarchies. Vedic orthodoxy was an established practice in these kingdoms.



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**Q.17)** Which of the following is/are **sect (s)** of Buddhism?

- 1. Mahasanghikas
- 2. Sthaviravadins
- 3. Sarvastivadins

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 course of time, Sthaviravadins, Mahasanghikas and Sarvastivadins emerged as major sects of Buddhism.

- New ideas emerged among the Sarvastivadins and Mahasanghikas. It led to the emergence of Mahayana and Hinayana (the Great and Lesser Vehicles) in Buddhism.
- Mahayana or the Great Vehicle became popular and influential in India. Nalanda University was an important centre of Buddhist learning and was patronised by the Palas. Mahayana spread to China and Japan.
- Hinayana or the Lesser Vehicle became popular in Sri Lanka, Burma, Thailand and other South-east Asian countries.
- By the end of the Gupta period, Vajrayana or the Vehicle of the Thunderbolt emerged. It was popular in Bengal and Bihar.
- It was influenced by primitive local cults and spread to Tibet in the 11th century CE. The Vikramasila University in Bihar was an important centre of Vajrayana Buddhism.

**Q.18)** Which Delhi Sultanate relied on **Bandagan** (elite military class) to consolidate the kingdom?

- a) Qutu-ud-din Aibak
- b) Shams-ud-din Iltutmish
- c) Balban
- d) Raziya Sultana

#### ANS: B

**Explanation:** The consolidation of a kingdom as vast as the Delhi Sultanate needed reliable governors and administrators.

- Rather than appointing aristocrats and landed chieftains as governors, the early Delhi Sultans, especially Iltutmish, favoured their special slaves purchased for military service, called bandagan in Persian.
- They were carefully trained to man some of the most important political offices in the kingdom.
- Since they were totally dependent upon their master, the Sultan could trust and rely upon them.

**Q.19)** Who among the following abolished the **"Group of Forty"** (Turkan-i-Chahalgani) system?

- a) Raziya Sultan
- b) Iltutmish
- c) Balban
- d) Tughril Khan

#### ANS: C

**Explanation:** The nobles occupied a position next only to the king in status and rank.

- Enjoying high social status and commanding vast resources they at times became strong enough to challenge the king.
- In the Delhi Sultanate, nobles were drawn from different tribes and nationalities like the Turkish, Persian, Arabic, Egyptian and Indian Muslims.
- Iltutmish organized a Corps of Forty, all drawn from Turkish nobility and selected persons from this Forty for appointments in military and civil administration.
- The nobles were organized into several factions and were constantly engaged in conspiracies.
- Balban therefore abolished the Corps of Forty and thereby put an end to the domination of "Turkish nobles".
- Alauddin Khalji also took stern measures against the "Turkish nobles" by employing spies to report to him directly on their clandestine and perfidious activities.

#### **Q.20)** Consider the following statements regarding the **Jizya tax**:

- 1. It was introduced by Qutb-ud-din Aibak for the first time in India.
- 2. It was levied on both individuals and agriculture land.

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:** Jizya is a tax levied and **collected per head (not on agriculture land)** by Islamic states on non-Muslim subjects living in their land.

- In India, Qutb-ud-din Aibak imposed jizya on non-Muslims for the first time.
- Jizya was abolished by the Mughal ruler Akbar in 16th century but was re-introduced by Aurangzeb in the 17th century.

#### **Q.21)** Consider the following statements regarding the **Champaran Satyagraha**:

- 1. Gandhiji was requested by rajkumar shuklato look into problems of farmers.
- 2. Tinkathia system was practiced by European planters around champaran area.
- 3. Peasants sell their produce at market prices.

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:** Gandhiji was requested by Rajkumar Shukla, a local man, to look into the problems of the farmers in context of indigo planters of Champaran in Bihar.

- The European planters had been forcing the peasants to grow indigo on 3/20 part of the total land (called tinkathia system).
- When towards the end of the nineteenth century German synthetic dyes replaced indigo, the European planters demanded high rents and illegal dues from the peasants in order to maximise their profits before the peasants could shift to other crops.
- Besides, the peasants were forced to sell the produce at prices fixed by the Europeans.

- When Gandhi, joined now by Rajendra Prasad, Mazharul- Haq, Mahadeo Desai, Narhari Parekh, and J.B. Kripalani, reached Champaran to probe into the matter, the authorities ordered him to leave the area at once.
- Gandhi defied the order and preferred to face the punishment. This passive resistance or civil disobedience of an unjust order was a novel method at that time.
- Finally, the authorities retreated and permitted Gandhi to make an enquiry.

**Q.22) Ripon's Resolution** has a great historical significance on which of the following given below fields?

- a) Educational reforms
- b) Health reforms
- c) Financial reforms
- d) Decentralization

#### ANS: D

**Explanation:** The Government of Ripon desired the provincial governments to apply in case of **local bodies** the same principle of financial decentralization which Lord Mayo's Government had begun towards them. For his contributions, Lord Ripon is called father of local self-government in India.

Q.23) Which of the following Princely States is/are annexed by British under "Doctrine of Lapse"?

- 1. Satara
- 2. Junagarh
- 3. Mysore

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 simple terms, the doctrine stated that the adopted son could be the heir to his foster father's private property, but not the state; it was for the paramount power (the British) to decide whether to bestow the state on the adopted son or to annex it.

- The doctrine was stated to be based on Hindu law and Indian customs, but Hindu law seemed to be somewhat inconclusive on this point, and the instances of an Indian sovereign annexing the state of his vassal on account of 'lapse' (i.e., leaving no issue as heir) were rather rare.
- Maharaja Ranjit Singh had annexed a few of his feudatory principalities on account of 'lapse'. Likewise, the Company in 1820 acquired a few petty Cis-Sutlej states on the absence of heirs.
- Nonetheless, there was no clear-cut instance of an adopted son being deprived of an entire state or of such a state being regarded as a 'lapse'.
- Though this policy is attributed to Lord Dalhousie (1848-56), he was not its originator. It was a coincidence that during his governor-generalship several important cases arose in which the 'Doctrine' could be applied.
- Dalhousie showed too much zeal in enforcing this policy which had been theoretically enunciated on some previous occasions.

- His predecessors had acted on the general principle of avoiding annexation if it could be avoided; Dalhousie in turn acted on the general principle of annexing if he could do so legitimately.
- It was a matter of chance that during Lord Dalhousie's term many rulers of states died without a male issue and seven states were annexed under the Doctrine of Lapse.
- The most important of these were Satara (1848), Jhansi and Nagpur (1854). The other small states included Jaitpur (Bundelkhand), Sambhalpur (Orissa), and Baghat (Madhya Pradesh).

Q.24) Which of the following are the aims and objectives of Indian National Congress (INC)?

- 1. Found a democratic, nationalist movement.
- 2. Politicize and politically educate people.
- 3. Establish the headquarters for a movement.
- 4. Fight for immediate and complete independence.

Select the correct answer using the 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:** The main aims of the Indian National Congress in the initial stage were to

- found a democratic, nationalist movement
- politicize and politically educate people
- establish the headquarters for a movement
- promote friendly relations among nationalist political workers from different parts of the country
- develop and propagate an anti-colonial nationalist ideology
- formulate and present popular demands before the government with a view to unifying the people over a common economic and political programme
- Develop and consolidate a feeling of national unity among people irrespective of religion, caste or province.
- Carefully promote and nurture Indian nationhood.

Q.25) Who among the following headed by the Surat session of Indian National Congress?

- a) Dada Bhai Naoroji
- b) Bal Gangadhar Tilak
- c) Rashbehari Ghosh
- d) Lala Lajpat Rai

#### ANS: C

**Explanation:** Rash Behari Ghosh was born on 23 December 1845 in Burdwan, West Bengal. After a short spell in the local pathshala, Rashbihari was educated in the Burdwan Raj Collegiate School.

- Passing the entrance examination from Bankura, he entered Presidency College, Calcutta and obtained a first class in the M.A. examination in English. In 1871 he passed with honours the Law examination and in 1884 was awarded the degree of Doctor of Laws.
- Ghosh was closely associated with Calcutta University. From 1887 to 1899 he was a member of the Syndicate. Gokhale's scheme of compulsory primary education received

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his warm support and during the Swadeshi movement he supported the move for national education, becoming the first President of the National Council of Education (1906 - 21).

- He did not associate himself publicly with the Indian National Congress until 1906. His first important appearance in politics was in 1905 when he presided over a meeting held in the Calcutta Town Hall to protest against the offensive remarks of Lord Curzon at the Convocation ceremony of Calcutta University.
- In 1906 he was the Chairman of the Reception Committee when the Congress held its annual session in Calcutta. **Next year (1907) he presided over the Surat session which ended in pandemonium**. In 1908 he presided over the Madras session.

#### Q.26) "Lothian committee" is related to which of the following reforms?

- a) Separate Electorates
- b) Rural Development
- c) Financial decentralization
- d) Civil Service reforms

#### ANS: A

**Explanation:** The Communal Award, based on the findings of the Indian Franchise Committee (also called the Lothian Committee), **established separate electorates** and reserved seats for minorities, including the depressed classes which were granted seventy-eight reserved seats.

#### Q.27) Which of the following conditions is/are issued under "Delhi Manifesto"?

- 1. The purpose of the round table conference should be to determine whether or when dominion status was to be reached.
- 2. Congress should have a majority representation at the conference.
- 3. General amnesty for political prisoners.

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: C

**Explanation:** On November 2, 1929, a conference of prominent national leaders issued a 'Delhi Manifesto' which put forward certain conditions for attending the Round Table Conference:

- that the **purpose of the Round Table Conference should be not** to determine whether or when dominion status was to be reached but to formulate a constitution for implementation of the dominion status (thus acting as a constituent assembly) and the basic principle of dominion status should be immediately accepted;
- That the Congress should have majority representation at the conference; and
- There should be a general amnesty for political prisoners and a policy of conciliation;
- Gandhi along with Motilal Nehru and other political leaders met Lord Irwin in December 1929 (after the viceroy had narrowly escaped after a bomb was detonated meaning to hit the train he was travelling in).
- They asked the viceroy for assurance that the purpose of the round table conference was to draft a constitutional scheme for dominion status.

• That was not the purpose of the conference, said Irwin. Viceroy Irwin rejected the demands put forward in the Delhi Manifesto.

**Q.28)** which of the following proposals is/are put forwarded by the **Cripps Mission**:

- 1. An Indian Union with a dominion status would be set up.
- 2. A constituent assembly would be convened to frame a new constitution.
- 3. Defense of India would be in the hands 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: B

**Explanation:** In March 1942, a mission headed by Stafford Cripps was sent to India with constitutional proposals to seek Indian support for the war.

Stafford Cripps was a left-wing Laborite, the leader of the House of Commons and a member of the British War Cabinet who had actively supported the Indian national movement.

The main proposals of the mission were as follows.

- An **Indian Union with a dominion status would be set up**; it would be free to decide its relations with the Commonwealth and free to participate in the United Nations and other international bodies.
- After the end of the war, a constituent assembly would be convened to frame a new constitution.
- Members of this assembly would be partly elected by the provincial assemblies through proportional representation and partly nominated by the princes.
- The British government would accept the new constitution subject to two conditions: (i) any province not willing to join the Union could have a separate constitution and form a separate Union, and (ii) the new constitution making body and the British government would negotiate a treaty to effect the transfer of power and to safeguard racial and religious minorities.
- In the meantime, defense of India would remain in British hands and the governor-general's powers would remain intact.

Q.29) Consider the following statements regarding the Minto-Morley Reforms:

- 1. Indians were allowed to participate in legislative councils.
- 2. Separate electorates for Muslims and depressed sections.
- 3. One Indian was appointed to Viceroys Executive Council.

Which of the statements given above is/are correct?

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

#### ANS: B

**Explanation:** The viceroy, Lord Minto, and the Secretary of State for India, John Morley, agreed that some reforms were due so as to placate the Moderates as well as the Muslims.

• They worked out a set of measures that came to be known as the Morley- Minto (or Minto-Morley) Reforms that translated into the Indian Councils Act of 1909.

- The elective principle was recognised for the nonofficial membership of the councils in India.
- Indians were allowed to participate in the election of various legislative councils, though on the basis of class and community.
- For the first time, **separate electorates for Muslims** for election to the central council was established—a most detrimental step for India.
- The number of elected members in the Imperial Legislative Council and the Provincial Legislative Councils was increased. In the provincial councils, non-official majority was introduced, but since some of these non-officials were nominated and not elected, the overall non-elected majority remained.
- One Indian was to be appointed to the viceroy's executive council.

Q.30) The Rampa revolt is a famous tribal revolt took place in which of the following state?

- a) Telangana
- b) Kerala
- c) Tamil Nadu
- d) None

#### ANS: D

Explanation: Rampa Revolts led by Alluri Sitarama Raju of the Koyas (1916, 1922-1924; Rampa region in Andhra Pradesh); against British interference; capture and execution of Raju in 1924.

Q.31) The "Urn System" in ancient period is related to which of the following?

- a) Irrigation system
- b) Housing methods
- c) Burial system
- d) Barter exchange

#### ANS: C

**Explanation:** The burial system followed by the people of Neolithic period continued into the Megalithic period.

- A circular tomb using big stone slabs built upon the place of burials known as a megalith. Such megaliths have been found in many parts of Tamil Nadu.
- **The urn burial system** was another type of practice and is evidenced in Adichanallur (present Thoothukudi district).
- Black-ware is peculiar to burial sites in Tamil Nadu.
- Interestingly, black-ware is found mostly in burial mounds and not in human habitations. In a majority of urn burials, the use of stone is almost non-existent.
- However, urn burials are grouped under megalithic because the materials the pottery, iron objects, beads of semi-precious stones kept in them are identical to those found in the stone burials.

**Q.32)** Recently which of the following country was declared **Theravada Tripitaka** as national heritage?

- a) Cambodia
- b) Sri Lanka
- c) Nepal
- d) Thailand

#### ANS: B

**Explanation:** Sri Lankan President Maithripala Sirisena today handed over a proposal seeking to declare the Theravada Tripitaka, the sacred ure of Buddhists, as a UNESCO World Heritage.

- The proposal was officially handed over during a national ceremony held in Kandy to the UN resident coordinator in Sri Lanka, Hanaa Singer.
- The Theravada Tripitaka was declared a National heritage of Sri Lanka by President in January 2019.
- Buddha's teachings were initially propagated through word of mouth for generations till the Tripitaka was finally written down in Sri Lanka about 100 years BC.
- The teachings are contained in three volumes titled 'Sutta, Vinaya and Abhidhamma'.
- They were first compiled and written on palm leaves with more than 1000 monks involved in the task in Aluvihare near Matale.

**Q.33)** The **Digha Nikaya** is the compilation of the long discourses of Buddha - was translated in English by which of the following?

- a) James Prinsep
- b) Max Mueller
- c) Sir Charles Wilkins
- d) Alexander Cunningham

#### ANS: B

**Explanation:** The Digha Nikaya is the compilation of the long discourses of Buddha. The book is translated in English as part of Max Mueller's 50-volume Sacred Books of the East. Muller himself studied Sanskrit, Persian, Arabic, French, German and English, and of course Latin and ancient Greek.

Q.34) Which of the following are the Buddhist schools of thought?

- 1. Mahayana
- 2. Hinayana
- 3. Vajrayana
- 4. Tantrayana
- 5. Sahajayana

Select the correct answer using the code given below:

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

#### ANS: D

**Explanation:** Buddhism faced divisions from time to time. Division into various splinter groups like 'Hinayana', 'Mahayana', 'Vajrayana', 'Tantrayana' and 'Sahajayana' led Buddhism to lose its originality.

**Q.35)** The **Takshashila or Taxila** is an important centre of learning and culture in ancient period was **excavated** by which of the following?

- a) Sir John Marshall
- b) Alexander Cunningham
- c) Mortimer Wheeler
- d) Iravatham Mahadevan

#### ANS: A

**Explanation:** Takshashila or Taxila is situated in present day Pakistan.

- Between the fifth century and fourth century BCE, it was part of the Achaemenid Empire of Persia.
- Because of its strategic location on the trade route between the East and the West, it emerged as an important centre of learning and culture.
- Students came from far and wide to Taxila in search of knowledge.
- The city was brought to light by the excavation carried out in the 1940s by Sir John Marshall.
- Taxila is considered "one of the greatest intellectual achievements of any ancient civilization".
- Panini seems to have compiled his well-known work, Ashtadhyayi, here.

#### Q.36) The "Padayani folk dance" is famous in which of the following state?

- a) Tamil Nadu
- b) Karnataka
- c) Goa
- d) Kerala

#### ANS: D

## Explanation: Padayani dance is the traditional dance form and is linked up with many festivals and events of Kerala.

- This dance form is even performed in various districts of Kerala such as Kollam, Alappuzha, Kottayam and Pathanamthitta.
- Also this dance is connected with folk art and even it is mainly associated with series of semi divine and divine impersonations in their dance.
- Padayani dance includes various distinctive steps and movements. The costumes uses in the dance are more of kolams which represent the situation of devil killing.
- Furthermore in this dance form the musical instruments used in it are known as Thappu and Chendas. Also the dancers in this Padayani dance form decorate themselves in most attractive way.
- They wear most colorful masks with unique images. This dance is worth watching and surprising as the performers make few movements with their eyes and ears.
- Even the accessories in this dance play a vital role as they create a real image in the battle field of dance.
- This dance requires lot of energy and boost as wearing heavy mask and then performing with it is not an easy task.
- In numerous temples of Kerala this dance is widely enjoyed and performed.

#### **Q.37)** Consider the following statements regarding the **Chhau dance**:

- 1. It is a tradition from North Eastern India that enacts episodes from epics including the Mahabharata and Ramayana.
- 2. The dance movement includes mock combat techniques, stylized gaits of birds and animals and movements modeled on the chores of village housewives.

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: Chhau dance is a tradition from eastern India that enacts episodes from epics including the Mahabharata and Ramayana, local folklore and abstract themes.

- Its three distinct styles hail from the regions of Seraikella, Purulia and Mayurbhanj, the first two using masks.
- Chhau dance is intimately connected to regional festivals, notably the spring festival Chaitra Parva. Its origin is traceable to indigenous forms of dance and martial practices.
- Its vocabulary of movement includes mock combat techniques, stylized gaits of birds and animals and movements modelled on the chores of village housewives.
- Chhau is taught to male dancers from families of traditional artists or from local communities.
- The dance is performed at night in an open space to traditional and folk melodies, played on the reed pipes mohuri and shehnai.
- The reverberating drumbeats of a variety of drums dominate the accompanying music ensemble. Chhau is an integral part of the culture of these communities.
- It binds together people from different social strata and ethnic background with diverse social practices, beliefs, professions and languages.
- However, increasing industrialization, economic pressures and new media are leading to a decrease in collective participation with communities becoming disconnected from their roots.

Q.38) "Kathi Samu" is an ancient and historical martial art is related to which of the following state?

- a) Odisha
- b) Tamil Nadu
- c) Andhra Pradesh
- d) Karnataka

#### ANS: C

# Explanation: Kathi Samu is an ancient and historical martial art which originated in Andhra Pradesh, India.

- Kathi basically means sword and Kathi Samu is a martial art which is fighting with swords.
- Kathi Samu is an ancient skill which was mastered by the royal armies of Andhra Pradesh.
- The Royal Kings practiced this skill as it was used in wars against their enemies and also it was considered to be a matter of pride to master Kathi Samu.
- The soldiers of the army were taught this martial art for the sole purpose of wars against enemies.
- According to research, Kathi Samu is said to be in existence for over 7000 years even before Aryan dynasty came into India.

**Q.39)** The "Kurumba Art" is recently in news is related to which of the following state?

- a) Odisha
- b) Karnataka
- c) Andhra Pradesh
- d) None

#### ANS: D

# Explanation: Kurumba art is a unique tribal art form found in the Nilgiris. It was discovered by the C.P.Ramaswami Aiyar Foundation and presented to the world.

- Eluthu paarai is an ancient 3000-year-old rock-art site in the Kothagiri region of the Nilgiris.
- The Kurumbas a tribe of hunters and medicine men believe that the art were the work of their ancestors.
- In the late 20th century during the course of a project of the C. P. Ramaswami Aiyar Foundation to survey and document the art and craft traditions of four Nilgiri tribes, the existence of an old artist the only one left in the tribe was discovered.
- The art are primarily ritualistic, describing various facets of tribal life in the remote forests of the Nilgiris.
- The Kurumbas love the hills and have an exquisite style of art. Originally, they drew with burnt twigs and coloured the art with a resin extracted from the bark of the Kino tree (Pterocarpus marsupium).
- Some of the art still use this method, which is slow and cumbersome, but beautiful. On paper, they have learned to use water and poster colours, which flow easier.
- The figures are flat and similar to Warli, with rectangular bodies. However, in spite of the 2-dimensional nature of the stick figures, the Kurumba artists are able to create lines of simple and fluids movements.
- The Kurumba trainees made large art on handmade paper and board, besides painted cards, notepad covers, etc.
- The choice of themes became more versatile as they gained confidence, and their choice varied from the vegetables and tubers to weddings and functions in their community.
- The depictions were of nature trees and mountains, driving away bees while gathering honey, weddings and festivals.
- The solemnity of tribal life with prayers to the forefathers and communal participation at every stage of life was also brought out in the art.

**Q.40)** The "Pattachitra paintings" is recently in news is related to which of the following state?

- a) Odisha
- b) Maharashtra
- c) Uttar Pradesh
- d) Nagaland

#### ANS: A

# Explanation: Pattachitra or Patachitra is a general term for traditional, cloth-based scroll painting, based in the eastern Indian states of Odisha and West Bengal.

- Pattachitra art form is known for its intricate details as well as mythological narratives and folktales inscribed in it.
- The name Pattachitra has evolved from the Sanskrit words patta, meaning canvas, and chitra, meaning picture.
- Pattachitra is thus a painting done on canvas, and is manifested by rich colourful application, creative motifs, and designs, and portrayal of simple themes, mostly mythological in depiction.
- The traditions of pattachitra paintings are more than thousand years Most of these paintings depict stories of Hindu deities.
- A traditional per formative art from eastern India- the patachitra tradition is an integral part of intangible heritage and is an important essence of folk and traditional media.

### Economy

- **Q.1)** The International Monetary Fund (IMF) defines the **Balance of Payments (BoP)** as a statistical statement that summarizes economic transactions between residents and non-residents during a specific time period. Which of the following **transactions** is/are consists of BoP?
- 1. Transactions in goods, services and income between an economy and the rest of the world.
- 2. Changes of ownership and other changes in economy's monetary gold, special drawing rights (SDRs), and financial claims on and liabilities to the rest of the world.
- 3. Unrequited transfers.

Select the correct answer using the codes given below:

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

#### ANS: D

**Explanation:** The Balance of Payments and International Investment Position Manual (BPM6) of the International Monetary Fund (IMF) defines the Balance of Payments (BoP) as a statistical statement that summarizes economic transactions between residents and non-residents during a specific time period.

The BoP, thus, includes all transactions showing:

- **transactions in goods, services** and income between an economy and the rest of the world,
- **changes of ownership and other changes** in that economy's monetary gold, special drawing rights (SDRs), and financial claims on and liabilities to the rest of the world, and
- Unrequited transfers.

These transactions are categorized into

- The "current account" including "goods and services", the "primary income", and the "secondary income",
- The "capital account", and
- The "financial account".
- Q.2) Consider the following statements regarding the Directorate General of Commercial Intelligence and Statistics (DGCI&S):
- 1. It compiles and releases monthly export & import data on merchandise trade.
- 2. It comes under Ministry of Statistics and Programme Implementation.

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:** The chequered history of evolution, developments, transformations and coming of age of the Directorate General of Commercial Intelligence And Statistics (Ministry of Commerce and Industry) has been a mammoth exercise spread over a span of one hundred and forty years and carried out under the stewardship of capable and pragmatic visionaries.

- The Organization traces its origin to a statistical branch established in the Finance Department of the Government of India way back in 1862. Sir William W. Hunter was the first DG of the DGCI & S or the Director General of Statistics as he was designated, back in 1871.
- The DGCI&S compiles and releases monthly export & import data on merchandise trade.
- It also compiles and releases yearly data on inter-state movement of goods in India by river, rail & air; customs & excise revenue collections of the Indian union, inland coasting trade consignments of India and foreign coastal cargo movements of India.

# Q.3) Consider the following statements regarding the Directorate General of Foreign Trade (DGFT) organization:

- 1. Its mandate is to formulating and implementing the Foreign Trade Policy with the main objective of promoting India's exports.
- 2. It is an attached office of the Ministry of Commerce and Industry.

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:** Directorate General of Foreign Trade (DGFT) **organization is an attached office of the Ministry of Commerce and Industry** and is headed by Director General of Foreign Trade.

- Right from its inception till 1991, when liberalization in the economic policies of the Government took place, this organization has been essentially involved in the regulation and promotion of foreign trade through regulation.
- Keeping in line with liberalization and globalization and the overall objective of increasing of exports, DGFT has since been assigned the role of "facilitator".
- The shift was from prohibition and control of imports/exports to promotion and facilitation of exports/imports, keeping in view the interests of the country.
- This Directorate, with headquarters at New Delhi, is responsible for formulating and implementing the Foreign Trade Policy with the main objective of promoting India's exports.
- The DGFT also issues scrips/authorization to exporters and monitors their corresponding obligations through a network of 38 regional offices and an extension counter at Indore.

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

Committee/Panel : Significance

Ranga Rajan Committee : Balance of Payments
 Vijay Kelkar Committee : Goods & Service Tax
 Tarapore Committee : Currency Convertibility

Select the correct answer using the codes given below:

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

#### ANS: A

**Explanation:** Besides, economic reforms in various sectors, various Committees were set up from time to time (by the Government of India and by RBI) to discuss policy issues related to international trade and balance of payments.

Some of the important Committees were -

- Committee on Export Import Policies & Procedures (Alexander Committee, 1978),
- Committee on Trade policy (Abid Hussain Committee, 1984),
- High level Committee on Balance of Payments (Rangarajan Committee 1993), and
- Committee on Capital Account Convertibility (Tarapore Committee I 1997 & Tarapore Committee II 2006).
- In 2003, the Vajpayee government forms a task force under Vijay Kelkar to recommend tax reforms. In 2004, Vijay Kelkar, then advisor to the Finance Ministry, recommends GST to replace the existing tax regime.
- **Q.5)** The Export-Import Bank of India (EXIM) extends Lines of Credit (LOCs) to promote export and imports. Which of the following is/are **eligible** for EXIM Lines of Credits?
- 1. Overseas financial institutions
- 2. Regional development banks
- 3. Sovereign governments

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: D

**Explanation:** Export-Import Bank of India (EXIM Bank) is a specialized financial institution, wholly owned by Government of India, set up in 1982, for financing, facilitating and promoting foreign trade of India.

EXIM Bank extends Lines of Credit (LOCs) to

- overseas financial institutions,
- regional development banks,
- sovereign governments and
- other entities overseas,

to enable buyers in those countries to import developmental and infrastructure projects, equipments, goods and services from India, on deferred credit terms.

- **Q.6)** Which of the following **state taxes** is/are subsumed under Goods and Service Tax (GST)?
- 1. Luxury Tax
- 2. Entertainment tax and Amusement tax levied by local bodies
- 3. Taxes on advertisements

Select the correct answer using the codes given below:

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

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

#### ANS: D

**Explanation:** The introduction of the Goods and Services Tax (GST) is a very significant step in the field of indirect tax reforms in India.

By amalgamating a large number of Central and State taxes into a single tax, GST will mitigate ill effects of cascading or double taxation in a major way and pave the way for a common national market.

The government rolled out GST with effect from 1st July 2017. State taxes that would be subsumed within the GST are:-

- State VAT
- Central Sales Tax
- Purchase Tax
- Luxury Tax
- Entry Tax (All forms)
- Entertainment Tax and Amusement Tax (except those levied by the local bodies)
- Taxes on advertisements
- Taxes on lotteries, betting and gambling
- State cesses and surcharges in so far as they relate to supply of goods and services.

#### Q.7) Consider the following statements regarding the buyback tax:

- 1. The government of India amended the Section 115QA of the Income Tax Act 1961 to introduce tax on buyback of shares.
- 2. It includes both listed and unlisted companies.

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:** In simple terms, buyback of shares means a situation when the company repurchases its own shares. A company may opt to buy back the shares under any one of the following situations:

- When the quoted price on the stock exchange for the company's share does not represent the true value of the shares; or
- When the company doesn't have paths to invest its accumulated funds, and it goes for buyback of shares with a view to return the capital; or
- When the promoters are planning to increase their shareholding in the company.

A company which has distributable surplus has the following two options:

- Declare dividend; or
- Purchase its own shares (i.e. buyback its shares).

The declared dividend is chargeable to Dividend Distribution Tax, whereas, earlier, the amount distributed as buy-back of shares was chargeable to capital gains. Being treated as capital gains, the income tax was paid at lower rates on buyback of shares.

In order to avoid the tax, unlisted companies started resorting to buyback of shares instead of declaring dividends. As an anti-tax avoidance measure, the government introduced Section 115QA under the Income Tax Act vide the Finance Act, 2013.

Provisions of Section 115QA were initially applicable only to unlisted companies. However, vide the Finance (No. 2) Act, 2019, the provisions of Section 115QA were amended and the same is made applicable to the listed companies also. The amended Section 115QA basically aims to bring the tax on dividend and the tax on buyback of shares at par.

**Q.8)** The "Operation Twist" often seen in news is related to which of the following?

- a) Buy and sale of government securities
- b) Foreign trade
- c) Lines of Credit
- d) Buying foreign assets

#### ANS: A

Explanation: The Reserve Bank of India (RBI) will simultaneously buy and sale government securities worth ₹10,000crore each in December 2019 under its open market operations — a move aimed at managing the yields.

- The RBI will purchase the longer-term maturities, that are trading at a spread of 150 bps (basis points) over the repo rate, so that the yield of these papers will soften and sell the shorter duration ones.
- The central bank said it will buy ₹10,000 crore of 6.45% government bonds maturing in 2029 and simultaneously sell ₹10,000 crore of short-term bonds maturing in 2020.
- Operation Twist is a move taken by U.S. Federal Reserve in 2011-12 to make long-term borrowing cheaper.

**Q.9)** The **Silver line project,** sometimes seen in news is related to which of the following state?

- a) Kerala
- b) Karnataka
- c) Andhra Pradesh
- d) Tamil Nadu

#### ANS: A

**Explanation:** The Kerala Rail Development Corporation (KRDCL) is confident that the ₹66,405-crore Thiruvananthapuram-Kasaragod semi-high-speed rail corridor project (named Silver Line) for which year 2024 has been set as the deadline, will be economically feasible and attain operational break-even within 10 years of being commissioned.

- Of the total cost of the 532-km project, around 50% will be loan at less than 1% interest from multilateral lending agencies such as KfW, AIIB (Asian Infrastructure Investment Bank), JICA (Japan International Cooperation Agency), or ADB (Asian Development Bank).
- Repayment is assured since there will be a rate of return of 8.1% on the investment. The balance amount will be raised from equity and (subordinate) debt from from the State and Central governments.



Q.10) The Utkarsh 2022, sometimes seen in news is related to which of the following?

- a) Regulation and functions of Central Bank
- b) Foreign Trade
- c) Skill development
- d) Doubling farmer's income

#### ANS: A

Explanation: The Reserve Bank of India (RBI) board finalized a three- year roadmap to improve regulation and supervision, among other functions of the central bank.

This medium term strategy — named **Utkarsh 2022** — is in line with the global central banks' plan to strengthen the regulatory and supervisory mechanism.

- Q.11) Consider the following statements regarding the strategic disinvestment or strategic sale:
- 1. It implies the sale of the Government shareholding of central public sector enterprises (CPSE) of up to 50%, or such higher percentage.
- 2. It is approved by the Ministry of Finance.

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:** When the government decides to transfer the ownership and control of a public sector entity to some other entity, either private or public, the process is called strategic disinvestment.

• The Department of Investment and Public Asset Management (DIPAM) which comes under the Finance Ministry defines Strategic disinvestment as follows:

- "Strategic disinvestment would imply the sale of a substantial portion of the Government shareholding of central public sector enterprises (CPSE) of up to 50%, or such higher percentage as the competent authority may determine, along with transfer of management control."
- The Cabinet Committee on Economic Affairs (CCEA) approves the strategic divestment of government holdings.

**Q.12)** With reference to the **new Non-Performing Assets (NPA) recognition norms**, which of the following statements is/are correct?

- 1. The new norms replace all the earlier resolution plans except Joint Lenders Forum (JLF).
- 2. The lenders can initiate the process of a resolution plan (RP) even before a default.
- 3. The lenders shall undertake a prima facie review of the borrower account within 30 days from the day of default.

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: C

**Explanation:** The Reserve Bank of India (RBI) on June 7, 2019 issued a new framework for resolution of bad loans, replacing the previous norms quashed by the Supreme Court in April, offering a 30-day gap for stress recognition instead of the one-day default earlier.

- The **new norms replaces all the earlier resolution plans such** as the framework for revitalising distressed assets, corporate debt restructuring scheme, flexible structuring of existing long-term project loans, strategic debt restructuring scheme (SDR), change in ownership outside SDR, and scheme for sustainable structuring of stressed assets (S4A), and **the joint lenders' forum** with immediate effect.
- The central bank said lenders shall recognise incipient stress in loan accounts, immediately on default, by classifying such assets as special mention accounts (SMA).
- Since default with any lender is a lagging indicator of financial stress faced by the borrower, it is expected that the lenders initiate the process of implementing a resolution plan (RP) even before a default.
- The central bank said once a borrower is reported to be in default by any lenders, financial institutions, small finance banks or NBFCs, the lenders shall undertake a prima facie review of the borrower account within 30 days from the day of default.

**Q.13)** Recently the Reserve Bank of India (RBI) has **slapped restrictions on withdrawal** on Punjab and Maharashtra Cooperative Bank Ltd (PMC Bank). Under which Act does the RBI has imposed restrictions?

- a) Reserve Bank of India Act, 1934
- b) Banking Regulation Act, 1949
- c) The Deposit Insurance and Credit Guarantee Corporation Act, 1961
- d) Payment and Settlement Systems Act, 2007

#### ANS: B

**Explanation:** The RBI has slapped restrictions on Punjab and Maharashtra Cooperative Bank Ltd (PMC Bank).It has also appointed an administrator and superseded its board of directors.

- The PMC had been placed under 'directions' of the Reserve Bank of India (RBI) for six months, after irregularities had been found in lending.
- The RBI has issued directions in exercise of powers vested in it under **sub section (1) of Section 35 A of the Banking Regulation Act**, 1949, read with Section 56 of the Banking Regulation Act, 1949 (AACS).

**Q.14)** Which of the following **financial institutions/banks** are covered under deposit insurance of Deposit Insurance and Credit Guarantee Corporation (DICGC)?

- 1. All Commercial Banks
- 2. Regional Rural Banks
- 3. Co-operative Banks
- 4. Non-Banking Financial institutions

Select the correct answer using the code given below:

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

#### ANS: A

**Explanation:** The functions of the DICGC are governed by the provisions of 'The Deposit Insurance and Credit Guarantee Corporation Act, 1961' (DICGC Act) and 'The Deposit Insurance and Credit Guarantee Corporation General Regulations, 1961' framed by the Reserve Bank of India in exercise of the powers conferred by sub-section (3) of Section 50 of the said Act.

Banks covered by Deposit Insurance Scheme are:

- All commercial banks including the branches of foreign banks functioning in India, Local Area Banks and Regional Rural Banks.
- **Co-operative Banks** All eligible co-operative banks as defined in Section 2(gg) of the DICGC Act are covered by the Deposit Insurance Scheme.
- All State, Central and Primary co-operative banks functioning in the States/Union Territories which have amended their Co-operative Societies Act as required under the DICGC Act, 1961, empowering RBI to order the Registrar of Co-operative Societies of the respective States/Union Territories to wind up a co-operative bank or to supersede its committee of management and requiring the Registrar not to take any action for winding up, amalgamation or reconstruction of a co-operative bank without prior sanction in writing from the RBI, are treated as eligible banks.
- At present all Co-operative banks are covered by the Scheme. The Union Territories of Lakshadweep and Dadra and Nagar Haveli do not have Co-operative Banks.

**Q.15)** Which of the following are the **trigger points** that invite corrective action from the central bank under Prompt Corrective Action (PCA)?

- 1. Capital to Risk weighted Asset Ratio (CRAR)
- 2. Net Non-Performing Assets (NPA)
- 3. Return on Assets (RoA)
- 4. Leverage ratio (LR)

Select the correct answer using the code given below:

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

#### ANS: A

**Explanation:** RBI's Prompt Corrective Action (PCA) Framework is a set of guidelines for banks that are weak in terms of identified indicators including – poor asset quality, insufficient capital and insufficient profit or losses.

- The Reserve Bank of India initiated the Scheme of Prompt Corrective Action (PCA) in 2002 to discipline banks when they report poor and risky financial performance.
- PCA is a policy action guideline (first in May 2014 and revised effective from April 1, 2017) if a commercial bank's financial condition worsens below a mark.
- The PCA framework **specifies the trigger points** or the level in which the RBI will intervene with corrective action. This trigger points are expressed in terms of parameters for the banks.

The parameters that invite corrective action from the central bank are:

- Capital to Risk weighted Asset Ratio (CRAR)
- Net Non-Performing Assets (NPA)
- Return on Assets (RoA) and
- Leverage ratio

Q.16) The term **Economic Capital Framework**, sometimes seen in news is related to which of the following?

- a) Commercial Banks
- b) Reserve Bank of India
- c) New Development Bank
- d) International Monetary Fund

#### ANS: B

**Explanation:** Bimal Jalan Committee was set up to review the **economic capital** framework of the RBI.

- Its mandate was to review global best practices followed by the central banks in making assessment and provisions.
- It has suggested that the framework may be periodically reviewed after every five years.
- The panel recommended to align the central bank's accounting year with the financial year which could reduce the need for paying interim dividend.
- The panel also suggested a clearer distinction between the two components of economic capital realized equity and revaluation balances mainly because of the volatile nature of the revaluation balances.

**Q.17)** The central bank (RBI) has **three different funds** that together comprise its reserves. Arrange the following funds in **ascending order** with respect to the reserves?

- 1. The Currency and Gold Revaluation Account (CGRA)
- 2. The Contingency Fund (CF)
- 3. The Asset Development Fund (ADF)

Select the correct answer using the code given below:

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

#### ANS: B

**Explanation:** The central bank has three different funds that together comprise its reserves. These are the Currency and Gold Revaluation Account (CGRA), the Contingency Fund (CF) and the Asset Development Fund (ADF).

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- Of these, the **CGRA** is by far the largest and makes up the significant bulk of the RBI's reserves.
- The fund, which in essence is made up of the gains on the revaluation of foreign exchange and gold, stood at ₹6.91 lakh crore as of financial year 2017-18.
- The CGRA has grown quite significantly since 2010, at a compounded annual growth rate of 25%.
- The **CF** is the second biggest fund, amounting to ₹2.32 lakh crore in 2017-18.
- It is designed to meet contingencies from exchange rate operations and monetary policy decisions and is funded in large part from the RBI's profits.
- The ADF makes up a much smaller share of the reserves.

**Q.18)** The proper definition of **FARMER** is provided by which of the following?

- a) NITI Aayog
- b) National Commission of Farmers 2007
- c) NABARD Act, 1981
- d) Model Agricultural Produce Market Committee (APMC) Act, 2003

#### ANS: B

Explanation: According to the National Commission of Farmers 2007, the term "FARMER" will refer to a person actively engaged in the economic and/or livelihood activity of growing crops and producing other primary agricultural commodities and will include all agricultural operational holders, cultivators, agricultural labourers, sharecroppers, tenants, poultry and livestock rearers, fishers, beekeepers, gardeners, pastoralists, non-corporate planters and planting labourers, as well as persons engaged in various farming related occupations such as sericulture, vermin-culture, and agro-forestry. The term will also include tribal families / persons engaged in shifting cultivation and in the collection, use and sale of minor and non-timber forest produce.

**Q.19)** The **Protected Special Agricultural Zone (PSAZ)**, sometimes seen in news is related to which of the following state?

- a) Andhra Pradesh
- b) Tamil Nadu
- c) Kerala
- d) Uttar Pradesh

#### ANS: B

**Explanation:** The Tamil Nadu Government has introduced a Bill in the Legislative Assembly seeking to declare the Cauvery delta region a Protected Special Agriculture Zone (PSAZ).

- The Bill said, since certain non-farming activities were adversely affecting agriculture in the region, threatening the State's food security, "to protect the agriculture in this region, it is proposed to prohibit certain activities in the region."
- The Bill also sought to establish a 30-member Tamil Nadu Protected Agricultural Zone Authority headed by the Chief Minister to advise the government on various measures to protect and improve farming activities to increase farm production and farm productivity to serve the interest of farmers.
- The proposed PSAZ would comprise of Thanjavur, Tiruvarur and Nagapattinam districts and five blocks each in Cuddalore and Pudukkottai districts.
- These areas have been listed under the First Schedule of the Act, to which the government may add or omit any area in the future.
- The government has identified zinc smelter; iron ore process plants, copper smelter, aluminum smelter, tannery, and ship breaking industries among others as industries

that adversely affect agriculture developments in the PSAZ. This list in the Second Schedule of the Act too, is subject to omission and addition subsequently.

**Q.20)** Which of the following **crops are monitored** under Market Intelligence and Early Warning System (MIEWS) Portal?

- 1. Sugar crane
- 2. Onions
- 3. Pulses
- 4. Tomato
- 5. Potato

Select the correct answer using the code given below:

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

#### ANS: D

**Explanation:** The MIEWS Dashboard and Portal is a 'first-of-its-kind' platform for 'real time monitoring' of **prices of tomato, onion and potato (TOP)** and for simultaneously generating alerts for intervention under the terms of the Operation Greens (OG) scheme.

- This portal is a novel initiative of MoFPI leveraging IT tools and furthering the goals of Digital India.
- The portal would disseminate all relevant information related to TOP crops such as Prices and Arrivals, Area, Yield and Production, Imports and Exports, Crop Calendars, Crop Agronomy, etc in an easy to use visual format.

Q.21) Consider the following statements regarding the **Asset Monetisation Framework**:

- 1. It is prepared by Reserve bank of India.
- 2. It helps to monetise stressed debts of banking system.

Which of the statements given above is/are correct?

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

#### ANS: D

Explanation: The framework is being drafted by the Department of Investment and Public Asset Management (DIPAM). The policy framework lays down the Institutional framework for monetization of the following:

- Identified non-core assets of CPSEs under strategic disinvestment;
- Immovable Enemy Property under the custody of Custodian of Enemy Property (CEPI), MHA as per sub section 6 of section 8A of the Enemy Property Act, 1968;
- This framework is also available for use to monetize assets of other CPSEs/PSUs/other Government Organizations with the approval of the Competent Authority;
- Sick/Loss making CPSEs under closure normally follow the DPE closure guidelines dated 14.06.2018 in this regard. However, any sick/loss making CPSE can also adopt this framework with the approval of Competent Authority.

The objective of the asset monetization programme of the Government of India is to unlock the value of investment made in public assets which have not yielded appropriate or potential returns so far.

**Q.22)** Which of the following enterprises is/are funded mostly under Venture Capital funds?

- 1. Start-ups.
- 2. Small and medium enterprises.
- 3. Large enterprises.

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:** Venture capital funds are investment funds that manage the money of investors who seek private equity stakes in startup and small- to medium-sized enterprises with strong growth potential.

- These investments are generally characterized as high-risk/high-return opportunities.
- In the past, venture capital investments were only accessible to professional venture capitalists, although now accredited investors have a greater ability to take part in venture capital investments.

Q.23) Consider the following statements regarding the **Market Stabilization Scheme** (MSS):

- 1. It is a tool used by central bank (RBI) to increase the liquidity and bringing the money market under control.
- 2. It was initiated by Raghuram Rajan in 2013.

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:** Market Stabilisation Scheme or MSS is a tool used by the Reserve Bank of India to **suck out excess liquidity from the market** through issue of securities like Treasury Bills, Dated Securities etc. on behalf of the government.

- The money raised under MSS is kept in a separate account called MSS Account and not parked in the government account or utilized to fund its expenditures.
- The Reserve Bank under Governor YV Reddy initiated the MSS scheme in 2004, to control the surge of US dollars in the Indian market; RBI started buying US dollars while pumping in rupee.
- This eventually led to over-supply of the domestic currency raising inflationary expectations. MSS was introduced to mop up this excess liquidity.

**Q.24)** Which of the following is/are **type (s)** of Government Securities (G-Sec)?

- 1. Treasury Bills (T-bills)
- 2. Cash Management Bills (CMBs)
- 3. Dated Government Securities

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 Government Security (G-Sec) is a tradeable instrument issued by the Central Government or the State Governments. It acknowledges the Government's debt obligation.

Such securities are short term (usually called treasury bills, with original maturities of less than one year) or long term (usually called Government bonds or dated securities with original maturity of one year or more).

In India, the Central Government issues both, treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs).

G-Secs carry practically no risk of default and, hence, are called risk-free gilt-edged instruments.

- **Treasury Bills (T-bills):** Treasury bills or T-bills, which are money market instruments, are short term debt instruments issued by the Government of India and are presently issued in three tenors, namely, 91 day, 182 day and 364 day.
- Cash Management Bills (CMBs): In 2010, Government of India, in consultation with RBI introduced a new short-term instrument, known as Cash Management Bills (CMBs), to meet the temporary mismatches in the cash flow of the Government of India. The CMBs have the generic character of T-bills but are issued for maturities less than 91 days.
- **Dated G-Secs:** Dated G-Secs are securities which carry a fixed or floating coupon (interest rate) which is paid on the face value, on half-yearly basis. Generally, the tenor of dated securities ranges from 5 years to 40 years.

Q.25) "Mission Purvodaya" is often seen in news is related to which of the following?

- a) Steel sector
- b) Coal sector
- c) Refinery sector
- d) Cement sector

#### ANS: A

**Explanation: Mission Purvodaya in steel sector** envisions creating an integrated steel hub in Eastern India.

- With abundance of raw materials, strategic geographical location and strong and developing connectivity, Odisha is well poised to be the heart of this eastern steel hub.
- The Mission is rolled out by Union Petroleum and Natural Gas & Steel Ministry.
- More than 75% of India's envisioned incremental steel capacity will come from eastern India, with Odisha alone crossing 100 MTPA.
- In Odisha, Kalinganagar will be developed as the epicenter of Mission Purvodaya.

# Q.26) Consider the following statements regarding the Vizag-Chennai Industrial Corridor (VCIC):

- 1. It is part of Kolkata-Kanyakumari East Coast Economic Corridor.
- 2. It is funded by Asian Infrastructure Investment Bank (AIIB).

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: Asian Development Bank (ADB) had prepared Conceptual Development Plan (CDP) for Vizag-Chennai Industrial Corridor (VCIC).

- The Andhra Pradesh government has mooted development of nodes in Visakhapatnam, Machilipatnam, Donakonda and on the Yerpedu-Srikalahasti stretch.
- The VCIC has been identified for development in the first phase of Kolkata-Kanyakumari East Coast Economic Corridor.
- The ADB, which prepared the concept paper, has agreed to give \$500 million towards multi-tranch financing facility and policy-based loan worth \$125 million.

Q.27) Consider the following statements regarding the Farmer Producer Organization (FPO):

- 1. Farmers, Local representatives and other interested parties are the shareholders of FPO.
- 2. NABARD has dedicated funds to promote FPOs.

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:** An FPO, formed by a **group of farm producers**, is a registered body with producers as shareholders in the organization.

- It deals with business activities related to the farm produce and it works for the benefit of the member producers.
- Small Farmers' Agribusiness Consortium (SFAC) is providing support for promotion of FPOs.
- NABARD has dedicated Funds like Producer Organisation Development Fund (PODF) and PRODUCE for promotion of FPOs.
- Financing FPOs through NABARD's subsidiary NABKISAN Finance Ltd., digitisation of FPO data, development of performance measurement tool, etc. have also contributed to the ongoing efforts.
- Besides, NABARD is running an awareness campaign on the role of FPOs in building resilience against climate change, increase in productivity and optimal efficiency in the agri value chain.

Q.28) "Apiary on Wheels" is sometimes seen in news is related to which of the following?

- a) Poultry development
- b) Pulses production
- c) Fast moving consumer goods (FMCG)
- d) Honey bees development

#### ANS: D

**Explanation:** The Ministry of Micro, Small and Medium Enterprises has flagged off "Apiary on Wheels".

- Apiary on Wheels is a unique concept designed by the Khadi and Village Industries Commission (KVIC) for the easy upkeep and migration of Bee Boxes having live Bee colonies.
- It is a holistic approach to address the challenges faced by the beekeepers.

**Q.29)** Which of the following **crops** are covered under minimum support price (MSP)?

- 1. Paddy
- 2. Wheat
- 3. Cotton
- 4. Jute
- 5. Sugar crane

Select the correct answer using the code given below:

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

#### ANS: C

**Explanation:** The Government's price policy for agricultural commodities seeks to ensure remunerative prices to the growers for their produce with a view to encourage higher investment and production and to safeguard the interest of consumers by making available supplies at reasonable prices with low cost of intermediation.

- The price policy also seeks to evolve a balanced and integrated price structure in the perspective of the overall needs of the economy.
- Towards this end, the Government announces, Minimum Support Prices (MSP) for 25 major agricultural commodities each year in both the Crop seasons after taking into account the recommendations of the Commission for Agricultural Costs and Prices (CACP).
- CACP recommends MSP for twenty two (22) crops and Fair & Remunerative Price (FRP) for sugarcane.
- Apart from Sugarcane for which FRP is declared by the Department of Food &Public Distribution, twenty two crops covered under MSP are Paddy, Jowar, Bajra, Maize, Ragi, Arhar, Moong, Urad, Groundnut-in-shell, Soyabean, Sunflower, Seasamum, Nigerseed, Cotton, Wheat, Barley, Gram, Masur (lentil), Rapeseed/Mustardseed, Safflower, Jute and Copra.
- In addition, MSP for Toria and De-Husked coconut is fixed by the Department on the basis of MSP's of Rapeseed/Mustardseed and Copra respectively.

**Q.30)** Which of the following is/are **procurement agency/agencies** for agriculture commodities?

- 1. Food Corporation of India (FCI).
- 2. Cotton Corporation of India (CCI).
- 3. National Consumer Cooperative Federation of India Ltd. (NCCF).

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: Besides, announcement of MSP, the Government also organizes procurement operations of these agricultural commodities through various public and cooperative agencies such as Food Corporation of India (FCI), Cotton Corporation of India (CCI), Jute Corporation of India (JCI), Central Warehousing Corporation (CWC), National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED), National

### Consumer Cooperative Federation of India Ltd. (NCCF), and Small Farmers Agro Consortium (SFAC).

Besides, State Governments also appoint state agencies to undertake PSS operations. While deciding the MSP for various agricultural commodities, the recommendations of CACP, the views of Central Ministries and State Governments and such other relevant factors which are important in the opinion of the Government are considered.

The CACP, while recommending the Minimum Support Price keeps in view

- the need to provide incentives to the producers for adopting improved technology and for developing a production pattern broadly in the light of national requirements
- the need to ensure rational utilization of land, water and other production resources and
- the likely effect of the price policy on the rest of the economy, particularly, on the cost of living, level of wages, industrial cost structure etc.

NAFED, Central Warehousing Corporation (CWC), National Consumer Cooperative Federation of India Ltd. (NCCF), Small Farmers Agro Consortium (SFAC) are the central agencies for procurement of oilseeds & pulses.

However, NAFED is also an additional central agency for procurement of cotton, in addition to Cotton Corporation of India (CCI) under the DAC.

### Q.31) Consider the following statements regarding the National Payments Corporation of India (NPCI):

- 1. It was created under the provisions of the Payment and Settlement Systems Act, 2007.
- 2. It has been incorporated as a not for profit organization under the provisions of Societies Registration Act, 1860.

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:** National Payments Corporation of India (NPCI), an umbrella organisation for operating retail payments and settlement systems in India, is an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment & Settlement Infrastructure in India.

- Considering the utility nature of the objects of NPCI, it has been incorporated as a "Not for Profit" Company under the provisions of Section 25 of Companies Act 1956 (now Section 8 of Companies Act 2013), with an intention to provide infrastructure to the entire Banking system in India for physical as well as electronic payment and settlement systems.
- The Company is focused on bringing innovations in the retail payment systems through the use of technology for achieving greater efficiency in operations and widening the reach of payment systems.
- The ten core promoter banks are State Bank of India, Punjab National Bank, Canara Bank, Bank of Baroda, and Union Bank of India, Bank of India, ICICI Bank, HDFC Bank, Citibank N. A. and HSBC.
- In 2016 the shareholding was broad-based to 56 member banks to include more banks representing all sectors.

Q.32) Consider the following statements regarding the **National Productivity Council** (NPC):

- 1. It is headed by Prime Minister of India.
- 2. It was established after economic reforms of 1991 to promote research and growth of Indian economy.
- 3. NPC is a constituent of the Asian Productivity Organization (APO).

Which of the statements given above is/are correct?

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

#### ANS: D

Explanation: National Productivity Council of India (NPC), established in the year 1958, is an autonomous organization under Department for Promotion of Industry & Internal Trade, Ministry of Commerce and Industry, Government of India (Chairman of NPC).

- Besides undertaking research in the area of productivity, NPC has been providing consultancy and training services in areas of Industrial Engineering, Agri-Business, Economic Services, Quality Management, Human Resources Management, Information Technology, Technology Management, Energy Management, Environmental Management etc., to the Government and Public & Private sector organizations.
- NPC is a constituent of the Tokyo-based Asian Productivity Organization (APO), an Inter-Governmental Body of which the Government of India is a founding member.

Q.33) Consider the following statements regarding the Merger of Banks in India:

- 1. The merger of public sector banks was proposed by Sukhamoy Chakravarty committee.
- 2. Merger of banks can do by Cabinet approval without referring to parliament.

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: Maidavolu Narasimham, the 13th governor of the Reserve Bank of India (RBI), in 1991 recommended merger of public sector banks to make them stronger.

- It had envisaged a three-tier banking structure with three large banks with international presence at the top, eight to 10 national banks at tier two, and a large number of regional and local banks at the bottom.
- Bank consolidation procedures are laid out in the Banking Regulation Act, 1949.
- Any two public sector banking entities can initiate merger talks, but the scheme
  of the merger must be finalized by the government in consultation with the
  central bank and it must be placed in Parliament.
- Parliament reserves the right to modify or reject the scheme. In case of a merger between a public sector bank and a private bank too, parliamentary approval is a must.

**Q.34)** The "**Draft Scheme of Reconstruction**" is recently in news is related to which of the following?

a) Banking

- b) Retail business
- c) Agriculture reforms
- d) Employment

#### ANS: A

Explanation: RBI has placed the financially troubled Yes Bank under a moratorium (temporary suspension).

- After placing this bank under a moratorium, the RBI announced a draft Scheme of Reconstruction.
- This scheme entails the State Bank of India (SBI) investing capital to acquire a 49% stake in the restructured private lender.

Q.35) Consider the following statements regarding the Circuit breakers of stock market:

- 1. It halts trading in all equity and equity derivative markets nationwide for a specified time.
- 2. It is applicable to both Company stocks and individual stocks.
- 3. It is introduced by SEBI in 2018 to control unprecedented rise in Stock markets of India. 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: In the stock markets, the circuit breaker halts trading in all equity and equity derivative markets nationwide for a specified time, when the index hits predefined levels.

- Circuit breakers are applicable for individual securities as well.
- The market regulator, Securities and Exchange Board of India (SEBI) has introduced circuit breakers to curb severe market selling/volatility in the stock markets, with effect from July 2, 2001.
- The market-wide circuit breakers would be triggered by the movement of either BSE Sensex or NSE S&P CNX Nifty, whichever is breached earlier.
- Circuit breakers are triggered when either of the indices moves either ways (upside/downside) by 10 per cent or 15 per cent and 20 per cent, compared to the previous day's closing level of the index.

**Q.36)** Recently which of the following country **removed India from its list of countries** that are classified as **"developing" economies** for trade purposes?

- a) China
- b) United States of America
- c) France
- d) United Kingdom

#### ANS: B

Explanation: On February 10 - 2020, the U.S. removed more than a dozen countries, including India, from its list of countries that are classified as "developing" for trade purposes.

- These countries will now be classified instead as "developed" economies, thus stripping them of various trade benefits.
- The office of the United States Trade Representative (USTR) maintains a list of countries that it classifies as "developing", "developed", and "least-developed".

- Countries that are classified as "developing" are allowed to export certain goods to the U.S. without being hit by punitive tariffs that are usually imposed on goods from "developed" countries.
- The "developing country" status owes its origin to **the U.S. Trade Act of 1974**, which authorised the Generalized System of Preferences (GSP) to help poor countries develop faster.
- These benefits were extended further under the World Trade Organization wherein rich countries agreed to grant trade benefits to countries that classified themselves as poor.
- It is worth noting that about two-thirds of countries that are members of the WTO classify themselves as "developing" countries and avail benefits.

**Q.37)** Recently which international institution announced the **first global consortium** focused on designing a framework for the **governance of digital currencies**?

- a) International Monetary Fund
- b) World Bank
- c) Asian Infrastructure Investment Bank
- d) World Economic forum

#### ANS: D

**Explanation:** The World Economic Forum on Friday announced the first global consortium focused on designing a framework for the governance of digital currencies, including stablecoins.

- The Global Consortium for Digital Currency Governance will aim to increase access to the financial system through innovative policy solutions that are inclusive and interoperable.
- This is the first initiative to bring together leading companies, financial institutions, government representatives, technical experts, academics, international organizations, NGOs and members of the Forum's communities on a global level.
- This consortium will focus on solutions for a fragmented regulatory system. Efficiency, speed, interoperability, inclusivity and transparency will be at the heart of this initiative.
- It will call for innovative regulatory approaches to achieve these goals and build trust.
- A set of guiding principles will be co-designed to support public and private actors exploring the opportunities that digital currencies present.

Q.38) "Nirvik Scheme" is often seen in news is related to which of the following?

- a) Export sector
- b) Rural self-employment
- c) Wage employment in urban areas
- d) Horticulture sector

## ANS: A

**Explanation:** The Export Credit Guarantee Corporation of India (ECGC) is optimistic that the Nirvik scheme announced by the Union Government would give a fillip to export lending and insurance cover for export credit.

- Under the Nirvik scheme, ECGC will provide 90% cover.
- The additional outgo, if any, due to the enhanced cover would be supported by the government and the scheme would be valid for five years.
- Currently, the average cover given to banks by the ECGC is 60%.

Q.39) The "PRAKASH portal", sometimes seen in news is related to which of the following?

- a) Renewable energy
- b) Coal availability to railways
- c) Domestic supply of coal
- d) Self-help groups

#### ANS: B

**Explanation:** The ministries of Power, Coal and Railways have formed a web portal to track the movement of coal from the coal mines to power plants.

- The portal is named PRAKASH an abbreviation for Power Rail Koyla Availability through Supply Harmony.
- Speaking at the launch event, Minister for Coal, Mines and Parliamentary Affairs, said: "This portal will help avoid any blame game between ministries on the supply and availability of coal. It will also help coal better plan better coal supplies."
- "Coal supplies this year were disrupted because of unprecedented rains and strikes. Coal India has been increasing its supplies considerably and we expect to meet all demands of power plants".
- This portal is designed to help in mapping and monitoring entire the coal supply chain for power plants, through coal stock at the supply end (mines), coal quantities/rakes planned, coal quantity in transit and coal availability at power generating station.
- It aims at bringing better coordination for coal supplies among all stakeholders, namely the Ministry of Power, Ministry of Coal, Coal India, Railways and power utilities.

Q.40) The "Acceptance Development Fund (ADF)" is often seen in news is related to which of the following?

- a) To promote bank credit culture
- b) To promote cashless transactions
- c) To promote health insurance
- d) To promote startups

## ANS: B

**Explanation:** An RBI concept paper (March 2016) on expanding the card acceptance infrastructure in the country had suggested that besides card issuers (banks) and card payment networks (such as Visa, MasterCard and RuPay), the government and the RBI to consider contributing to the Acceptance Development Fund (ADF).

- ADF is to develop debit and credit card acceptance infrastructure in the country.
- While the government's contribution to the ADF could be routed through the Financial Inclusion Fund (FIF), which is operated by the National Bank for Agriculture and Rural Development (Nabard), the RBI's contribution could come from the Depositors' Education and Awareness (DEA) Fund.

## Polity

## Q.1) Consider the following statements regarding the Agreement on Prohibition of Attacks against Nuclear Installations and Facilities:

- 1. It is a multilateral agreement between the nuclear weapon states.
- 2. It is entered into force in 1971.

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:** Both India and Pakistan have exchanged their list of nuclear installations under the bilateral agreement.

- The list was handed over in accordance with Article-II of the **Agreement on**Prohibition of Attacks against Nuclear Installations and Facilities between

  Pakistan and India, signed on December 31, 1988, the Foreign Office (FO).
- The agreement was **entered into force on January 27, 1991**, provides, inter alia, that the two countries inform each other of nuclear installations and facilities to be covered under the agreement on the first of January of every calendar year.

**Q.2)** The term "**Protecting Power**" is recently in news is related to which of the following?

- a) Diplomatic relations
- b) Foreign exchange reserves
- c) Defense treaties
- d) Bilateral defense exercises

#### ANS: A

**Explanation:** Following the killing of Iranian military and intelligence commander Major General Qassem Soleimani in Baghdad in a drone attack carried out by the United States, the Iranian government registered its protest with the Swiss Embassy in Tehran.

- Switzerland represents the interests of the US in Iran. This is because the US itself does not have an embassy there. Iran's interests in the United States, on the other hand, are represented by the Pakistan Embassy in Washington.
- In an arrangement such as this, Switzerland is the "Protecting Power" of the United States' interests in Iran. The instrument of Protecting Powers is provided for under the 1961 and 1963 Vienna Conventions on Diplomatic Relations.
  - "If diplomatic relations are broken off between two States, or if a mission is permanently or temporarily recalled... the sending State may entrust the protection of its interests and those of its nationals to a third State acceptable to the receiving State," the 1961 Vienna Convention states.
  - And the 1963 Convention reiterates: "A sending State may with the prior consent of a receiving State, and at the request of a third State not represented in the receiving State, undertake the temporary protection of the interests of the third State and of its nationals."

- **Q.3)** Which of the following are the **priority areas of regional cooperation** within the framework of the East Asia Summit (EAS)?
- 1. Environment and energy
- 2. Pandemic diseases
- 3. Finance
- 4. Natural Disaster Management
- 5. Security

Select the correct answer using the code given below:

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

#### ANS: B

**Explanation:** The East Asia Summit is a **unique Leaders-led forum of 18 countries** of the Asia-Pacific region formed to further the objectives of regional peace, security and prosperity.

- It has evolved as a forum for strategic dialogue and cooperation on political, security and economic issues of common regional concern and plays an important role in the regional architecture.
- Established in 2005, EAS allows the principal players in the Asia-Pacific region to discuss issues of common interest and concern, in an open and transparent manner, at the highest level.
- The membership of EAS consists of ten ASEAN Member States (i.e. Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, the Philippines and Vietnam), Australia, China, India, Japan, New Zealand, Republic of Korea, Russian Federation and the USA.
- EAS is an initiative of ASEAN and is based on the premise of the centrality of ASEAN.
- There are six priority areas of regional cooperation within the framework of the EAS. These are Environment and Energy, Education, Finance, Global Health Issues and Pandemic Diseases, Natural Disaster Management, and ASEAN Connectivity.
- India endorses regional collaboration in all six priority areas.

**Q.4)** Which of the following are the **founder members** of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)?

- 1. Bangladesh
- 2. India
- 3. Sri Lanka
- 4. Myanmar
- 5. Bhutan
- 6. Nepal
- 7. Thailand

Select the correct answer using the code given below:

- a) 1, 2, 3, 4 and 7 only
- b) 1, 2, 5, 6 and 7 only
- c) 1, 2, 3 and 7 only
- d) 1, 2 and 3 only

#### ANS: C

**Explanation:** The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a regional organization comprising seven Member States lying in the littoral and adjacent areas of the Bay of Bengal constituting a contiguous regional unity.

- This sub-regional organization came into being on 6 June 1997 through the Bangkok Declaration.
- It constitutes seven Member States: five deriving from South Asia, including Bangladesh, Bhutan, India, Nepal, Sri Lanka, and two from Southeast Asia, including Myanmar and Thailand.
- Initially, the economic bloc was formed with four Member States with the acronym 'BIST-EC' (Bangladesh, India, Sri Lanka and Thailand Economic Cooperation).
- Following the inclusion of Myanmar on 22 December 1997 during a special Ministerial Meeting in Bangkok, the Group was renamed 'BIMST-EC' (Bangladesh, India, Myanmar, Sri Lanka and Thailand Economic Cooperation).
- With the admission of Nepal and Bhutan at the 6th Ministerial Meeting (February 2004, Thailand), the name of the grouping was changed to 'Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation' (BIMSTEC).

Q.5) Which of the following country is recently re-joined the Commonwealth group?

- a) Sri Lanka
- b) Syria
- c) Omen
- d) Maldives

#### ANS: D

**Explanation:** The **Maldives re-joined the Commonwealth**, more than three years after the Indian Ocean island nation quit the association amid mounting criticism of its human rights record then.

- In 2016, the Maldives pulled out of the Commonwealth terming "unjust" the grouping's decision to penalise the country over former President Mohamed Nasheed's controversial ouster in 2012.
- It followed the Commonwealth Ministerial Action Group (CMAG)'s warning to Maldives of suspension from the bloc, voicing "deep disappointment" over the country's lack of progress in resolving the political crisis during former President Abdulla Yameen's presidency, whose authoritarian slant sparked concern domestically and internationally.

## **Q.6)** Consider the following statements regarding the **G-20**:

- 1. It is an inter-governmental treaty between 19 member countries and European Union.
- 2. It was created after the collapse of Soviet Russia to promote economic growth among developing and developed countries.
- 3. It has members from every continent.

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

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

#### ANS: B

**Explanation:** The Group of Twenty, or the G20, is the **premier forum for international** economic cooperation.

- The G20 brings together the leaders of both developed and developing countries from every continent.
- Collectively, G20 members represent around 80% of the world's economic output, two-thirds of global population and three-quarters of international trade.
- Throughout the year, representatives from G20 countries gather to discuss financial and socioeconomic issues.
- **Originated in 1999** at the level of Finance Ministers and Central Bank Governors, the G20 gathered for high-level discussions on macro-financial issues.
- In the wake of the 2008 global financial crisis, the G20 was elevated to include the leaders of member countries.
- The first G20 Leaders' Summit took place in Washington D.C. in November 2008.
- Consequently, the G20 agenda expanded beyond macro-financial issues, to include socio-economic and development issues.

## **Q.7)** Which of the following country is **NOT** part of QUAD?

- a) Australia
- b) South Korea
- c) Japan
- d) India

#### ANS: B

**Explanation:** In a significant development for the region, the Quadrilateral Strategic Dialogue ("the Quad") between **India**, **Australia**, **Japan and the U.S**. held its first Minister-level meeting since it was revived in 2017.

- The group is seen as a regional counter-weight to China and has only met at the Joint or Assistant Secretary level since 2017.
- Members of the Quad, barring Australia, are currently engaged in the annual Malabar exercises military exercises that started between India and the U.S. in 1994 and became trilateral (with Japan) in 2015.
- India has not permitted Australia to participate in these exercises, concerned about what message it would send to China, which is wary of the exercise.

## Q.8) Consider the following statements regarding the Association of World Election Bodies (A-WEB):

- 1. It is the largest association of Election Management Bodies (EMBs) worldwide.
- 2. The permanent secretariat of A-WEB is located at Seoul.
- 3. Election Commission of India hosted the 4th General Assembly of Association of World Election Bodies (A- WEB) at Bengaluru.

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: D

Explanation: The Association of World Election Bodies (A-WEB) is the largest association of Election Management Bodies (EMBs) worldwide.

- It is established on October 14, 2013 in Song-do, South Korea and the **permanent** secretariat is located at Seoul.
- Representatives from election bodies in over 50 countries will congregate in Bengaluru to share their electoral experience with programmes connected to the Fourth General Assembly of the Association of World Election Bodies (A-WEB).
- Currently, the A-WEB has 115 members and 20 regional associations/ organizations as associate members.
- The members include 24 from Asia, 37 from Africa, 31 from America, 17 from Europe, and six from Oceania.
- The ECI will continue to remain on the executive board of the A-WEB for 2021–23 in its capacity as immediate former chair of the A-WEB.

## Q.9) Which of the following Multilateral Export-Control Regime is also called as **London** Club?

- a) Nuclear Suppliers Group
- b) MTCR
- c) Wassenaar arrangement
- d) Australia Group

#### ANS: A

Explanation: The Nuclear Suppliers Group (NSG) first met in November 1975 in London, and is thus popularly referred to as the "London Club". It is a Group of nuclear supplier countries that seek to prevent nuclear proliferation by controlling the export of materials, equipment and technology that can be used to manufacture nuclear weapons.

## **Q.10)** Which of the following countries are **Baltic nations?**

- 1. Estonia
- 2. Latvia
- 3. Lithuania

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: Baltic States, the northeastern region of Europe, includes the countries of Estonia, Latvia, and Lithuania, on the eastern shores of the Baltic Sea.

- Vice President M Venkaiah Naidu concluded his 5-day tour to the three Baltic nations Lithuania, Latvia and Estonia in August 2019.
- The visit was aimed at strengthening the bilateral engagements with the three nations, besides giving the relationships a fresh impetus in the context of a changing global order.
- Besides considering the strategic interests, the focus of the visit was also on improving cooperation in the fields of security, especially countering terrorism.

## **Q.11)** The **Abdul Kuddus v Union of India 2019** case, sometimes seen in news is related to which of the following?

- a) Citizenship
- b) Preventive Detention
- c) Environmental Concern

#### d) Fake encounters

#### ANS: A

**Explanation:** On May 17, 2019 in a very short hearing, a three-judge Bench of the Supreme Court (the Chief Justie of India Ranjan Gogoi and Justices Deepak Gupta and Sanjiv Khanna) decided a batch of 15 petitions under the title **Abdul Kuddus v Union of India**.

The case involved the status of an "opinion" rendered by a Foreigners Tribunal, as to the citizenship (or the lack thereof) of any individual. The issue arose because, in the State of Assam, there are two ongoing processes concerning the question of citizenship.

- The first includes proceedings before the Foreigners Tribunals, which have been established under an executive order of the Central government.
- The second is the NRC, a process overseen and driven by the Supreme Court. While nominally independent, both processes nonetheless bleed into each other, and have thus caused significant chaos and confusion for individuals who have found themselves on the wrong side of one or both.

In short, the petitioners' case was that the two processes — that of the Foreigners Tribunal and of the NRC — should be kept entirely independent of each other, and without according primacy to one over the other.

**Q.12)** The term **Principle of Non-Refoulement** often seen in news is related to which of the following?

- a) Economic offender
- b) Refugees
- c) Right to property
- d) Polluter pay principle

## ANS: B

**Explanation:** Non-refoulement is a fundamental principle of international law. It prohibits states from forcibly returning **refugees** to conditions that caused them to flee their homes in the first place, where they would be likely in danger of persecution based on race, religion, nationality, membership of a particular social group or political opinion.

# Q.13) Consider the following statements regarding the Controller General of Accounts (CGA):

- 1. It is a Constitutional body.
- 2. It derives its mandate from Article 150 of the Constitution.

Which of the statements given above is/are correct?

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

## ANS: B

**Explanation:** The CGA is the Principal Accounting Adviser to the Government of India. The office is in the Department of Expenditure, Ministry of Finance. **Controller General of Accounts derives his mandate from Article 150 of the Constitution**. This statutory mandate as incorporated in the Allocation of Business Rules 1961.

- The office of the CGA has the mandate to establish and maintain a technically sound Management Accounting system.
- It also prepares and submits the accounts of the Central Government.

• It is also in charge of the exchequer control and internal audits.

The difference between the CAG and the CGA are summed up in the table:

Office of CAG	Office of CGA
It is an independent body.	It is under the Department of Expenditure in the Finance Ministry.
It is a constitutional body.	It is not a constitutional body.
It audits the accounts and related activities of the 3 tiers of government: Federal, Provincial and Local.	It is the Principal Acco <mark>unting</mark> Adviser to the Gover <b>n</b> ment of India.

## Q.14) Consider the following statements regarding the **Financial Action Task Force** (FATF):

- 1. It is an inter-governmental body set up in 1989 by the G7 countries.
- 2. It ensures a coordinated global response to prevent organized crime, corruption and terrorism.

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:** In response to mounting concern over money laundering, the Financial Action Task Force on Money Laundering (FATF) was **established by the G-7 Summit that was held in Paris in 1989**. The Financial Action Task Force (FATF) is the global money laundering and terrorist financing watchdog.

- The **inter-governmental body** sets international standards that aim to prevent these illegal activities and the harm they cause to society.
- As a policy-making body, the FATF works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas.
- With more than 200 countries and jurisdictions committed to implementing them.
- The FATF has developed the FATF Recommendations, or FATF Standards, which ensure a coordinated global response to prevent organized crime, corruption and terrorism.
- They help authorities go after the money of criminals dealing in illegal drugs, human trafficking and other crimes. The FATF also works to stop funding for weapons of mass destruction.
- The FATF reviews money laundering and terrorist financing techniques and continuously strengthens its standards to address new risks, such as the regulation of virtual assets, which have spread as crypto-currencies gain popularity.
- The FATF monitors countries to ensure they implement the FATF Standards fully and effectively, and holds countries to account that do not comply.

## **Q.15)** Consider the following statements regarding the **International Criminal Court (ICC)**:

- 1. It is the world's first permanent, international judicial body and it is a court of last resort.
- 2. It prosecutes both individuals and states.

Which of the statements given above is/are correct?

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

#### ANS: A

Explanation: The ICC is the world's first permanent, international judicial body capable of bringing perpetrators to justice and providing redress to victims when states are unable or unwilling to do so.

- This represents a major stride for international justice. On July 17, 1998, at a diplomatic conference in Rome, the international community adopted the **Rome**Statute of the International Criminal Court.
- The ICC can prosecute and bring to justice individuals accused of genocide, war crimes and crimes against humanity. These crimes are defined in the Rome Statute, and reflect existing international law.
- The **ICC** is located in The Hague, the Netherlands. The Court is composed of three branches: the judiciary, which is made up of 18 judges, the Office of the Prosecutor and the Office of the Registrar, which runs the administration of the Court.
- The **ICC** is a court of last resort. It acts essentially as a safety net when national courts are unable to prosecute, either because the criminal justice system is unequipped or collapsed, or because the perpetrators continue to wield influence over the government.
- The International Court of Justice (ICJ) is a civil court that hears disputes between countries. The ICC is a criminal court that prosecutes individuals.
- Other international criminal tribunals, namely the ad hoc tribunals for Rwanda and the former Yugoslavia, are similar to the ICC but are temporary and have a limited geographical scope. The ICC is a permanent court, and is global in its reach.

**Q.16)** The **Umbrella Movement** is recently in news is related to which of the following?

- a) Hong Kong
- b) Taiwan
- c) Tunisia
- d) North Korea

#### ANS: A

**Explanation:** Umbrella movement is the first ever homegrown pro-democracy movement in Hong Kong (2014), which is the semi-autonomous Chinese city.

- The name has its origin from the use of umbrellas as a tool against the Hong Kong Police's use of pepper spray to disperse the crowd.
- It was a British colony from 1841 until sovereignty was returned to China in 1997.
- Hong Kong is now part of China under the "one country, two systems" principle.
- Huge crowds had gathered to mark the fifth anniversary (September 2019) of the "Umbrella Movement", the failed pro-democracy campaign that laid the groundwork for the massive protests currently engulfing the finance hub.

**Q.17)** Recently which of the following country published a "**dirty list**" of employers that have engaged in slave labour?

- a) Argentina
- b) Brazil
- c) United States of America
- d) Canada

#### ANS: B

**Explanation: Brazil's "dirty list" of employers** that have engaged in slave labour is considered one the country's best tools in its efforts to end slave labor.

- It is a registry of employers that have been found by the government to have engaged in slave labour.
- It gives transparency to a decision already reached by the Brazilian state.
- Created in 2004, it has been hailed by the United Nations as a key tool in Brazil's anti-slavery drive.

**Q.18)** The **Operation Peace Spring,** recently seen in news, was launched by which of the following?

- a) France
- b) United Kingdom
- c) Ukraine
- d) Turkey

## ANS: D

**Explanation:** Operation Peace Spring is a military operation **launched by Turkey** against the Syrian Democratic Forces in Northeast Syria.

- The Turkish Armed Forces together with the Syrian National Army launched this after U.S. troops pulled back from the border area last week.
- It is to prevent the creation of a terror corridor across border, and to bring peace to the area.
- It is to create a safe zone to ensure that Syrian refugees return to their home countries.

**Q.19)** The Yuelu Proclamation made by the UNESCO at Changsha, the People's Republic of China, in 2018 is related to which of the following?

- a) Language
- b) Child rights
- c) Women rights
- d) Education rights

#### ANS: A

**Explanation:** Yuelu Proclamation was adopted at the first international conference on language resources protection in Changsha, Central China's Hunan province in 2018 by UNESCO. It is a document on protection and promotion of the **world's linguistic diversity**. The Yuelu Proclamation, says: "The protection and promotion of linguistic diversity helps to improve social inclusion and partnerships, helps to reduce the gender and social inequality between different native speakers, guarantee the rights for native speakers of endangered, minority, indigenous languages, as well as non-official languages and dialects to receive education, enhance the social inclusion level and social decision-making ability by encouraging them to participate in a series of actions to promote cultural diversity, endangered language protection, and the protection of intangible cultural heritage..."

**Q.20)** The "**Section 124-A**" of Indian Penal Code is often seen in news is related to which of the following?

- a) Transgender
- b) Domestic Violence
- c) Sedition
- d) Extra marital affairs

#### ANS: C

**Explanation:** The **section 124-A deals with the offence of sedition**, a term that covers speech or writing, or any form of visible representation, which brings the government into hatred or contempt, or excites disaffection towards the government, or attempts to do so.

- It is punishable with three years in prison or a life term. "Disaffection", it says, includes disloyalty and feelings of enmity.
- However, it also says expressing disapproval of government measures or actions, with a view to getting them changed by lawful means, without promoting hatred or disaffection or contempt towards the government will not come under this section.
- Sedition was introduced in the penal code in 1870; a decade after the Indian Penal Code came into force. It was a colonial law directed against strong criticism of the British administration.
- Its most famous victims included Bal Gangadhar Tilak and Mahatma Gandhi. Gandhi called it "the prince among the political sections of the IPC designed to suppress the liberty of the citizen".
- Two high courts had found it unconstitutional after Independence, as it violated the freedom of speech and expression. The Constitution was amended to include 'public order' as one of the 'reasonable restrictions' on which free speech could be abridged by law.
- Thereafter, the Supreme Court, in **Kedar Nath Singh v. State of Bihar (1962) upheld its validity**. At the same time, it limited its application to acts that involve "intention or tendency to create disorder" or incitement to violence.
- Thus, even strongly worded remarks, as long as they do not excite disloyalty and enmity, or incite violence, are not offences under this section.

**Q.21)** Which of the following Article (s) of Indian Constitution is/are deals with the reservation in services/posts?

- 1. Article 16
- 2. Article 46
- 3. Article 335

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: D

**Explanation:** The relevant Articles of the Constitution which govern the entire reservation set up are the following:

- **Article 16(4)**: Nothing in this Article shall prevent the State from making any provision for the reservation of appointments or posts in favour of any backward class of citizens which, in the opinion of the State, is not adequately represented in the services under the State.
- **Article 46**: The State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation.
- **Article 335**: The claims of the members of the Scheduled Castes and the Scheduled Tribes shall be taken into consideration, consistently with the maintenance of efficiency of administration, in the making of appointments to services and posts in connection with the affairs of the Union or of a State.

Q.22) "One is not born, but rather becomes, woman" was said by which of the following?

- a) Karl Marx
- b) Simone de Beauvoir
- c) Margaret Mead
- d) Phyllis Kaberry

#### ANS: B

**Explanation:** "One is not born, but rather becomes, woman." So wrote Simone de Beauvoir in her landmark 1949 book, The Second Sex.

- De Beauvoir's statement still remains an important principle for women and health.
- March 8 marks International Women's Day—a day that celebrates the social, economic, cultural, and political achievements of women worldwide.
- But International Women's Day also signals a moment to reflect not only on what has been achieved, but also what remains to be done.
- And there is, indeed, much more to be done if the goal of gender equity, Sustainable Development Goal 5, is to be won.

**Q.23)** Which of the following is/are **Socialistic Principles** of Directive Principles of State Policy (DPSP)?

- 1. State to secure a social order for the promotion of welfare of the people.
- 2. State shall strive to secure equal justice and free legal aid.
- 3. State shall endeavour to organize agriculture and animal husbandry on modern and scientific lines.

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:** The Constitution does not contain any classification of Directive Principles. However, on the basis of their content and direction, they can be classified into three broad categories, viz, socialistic, Gandhian and liberal–intellectual.

Socialistic principles reflect the ideology of socialism. They lay down the framework of a democratic socialist state, aim at providing social and economic justice, and set the path towards welfare state. They direct the state:

A. 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 (Article 38).

## B. To secure

- The right to adequate means of livelihood for all citizens;
- The equitable distribution of material resources of the community for the common good;
- Prevention of concentration of wealth and means of production;
- Equal pay for equal work for men and women;
- Preservation of the health and strength of workers and children against forcible abuse; and
- Opportunities for healthy development of children (Article 39).
- C. To promote equal justice and to provide free legal aid to the poor (Article 39 A).
- D. To secure the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement (Article 41).

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- E. To make provision for just and humane conditions of work and maternity relief (Article 42).
- F. To secure a living wage, a decent standard of life and social and cultural opportunities for all workers (Article 43).
- G. To take steps to secure the participation of workers in the management of industries (Article 43 A).
- H. To raise the level of nutrition and the standard of living of people and to improve public health (Article 47).

**NOTE**: Article 48 - The State shall endeavour to organise agriculture and animal husbandry on modern and scientific lines and shall, in particular, take steps for preserving and improving the breeds, and prohibiting the slaughter, of cows and calves and other milch and draught cattle – represent both Gandhian and liberal–intellectual principles.

**Q.24)** The "Global Social Mobility Index" is released by which of the following International Institution?

- a) UNESCO
- b) United Nations Development Programme (UNDP)
- c) World Economic Forum (WEF)
- d) UNICEF

#### ANS: C

**Explanation:** India has been ranked very low at 76th place out of 82 countries on a **new** Social Mobility Index compiled by the World Economic Forum, while Denmark has topped the charts.

The report, released ahead of the 50th Annual Meeting of the WEF, also lists India among the five countries that stand to gain the most from a better social mobility score that seeks to measure parameters necessary for creating societies where every person has the same opportunity to fulfill his potential in life irrespective of socioeconomic background.

Q.25) The *Time to Care* report, sometimes in news is related to which of the following?

- a) Wealth Inequality
- b) Climate change
- c) Financial exclusion
- d) Refugees

#### ANS: A

**Explanation:** India's richest 1% hold more than four-times the wealth held by 953 million people who make up for the bottom 70% of the country's population, while the total wealth of all Indian billionaires is more than the full-year budget.

- Releasing the study **Time to Care**, ahead of the 50th Annual Meeting of the World Economic Forum (WEF), rights group **Oxfam** also said the world's 2,153 billionaires have more wealth than the 4.6 billion people who make up 60 per cent of the planet's population.
- The report flagged that global inequality is shockingly entrenched and vast and the number of billionaires has doubled in the last decade, despite their combined wealth having declined in the last year.

**Q.26)** The "Bru/Reang community", sometimes seen in news is related to which of the following state?

- a) Manipur
- b) Jharkhand

- c) Chhattisgarh
- d) Mizoram

#### ANS: D

**Explanation:** Twenty-three years after ethnic clashes in **Mizoram** forced 37,000 people of the **Bru (or Reang) community** to flee their homes to neighbouring **Tripura**, an agreement has been signed to allow them to remain permanently in the latter state.

The agreement among the Bru leaders and the governments of India, Tripura, and Mizoram, signed in New Delhi on January 16, gives the Bru the choice of living in either state. In several ways, the agreement has redefined the way in which internal displacement is treated in India.

## Q.27) Consider the following statements regarding the World Population Prospects 2019 report:

- 1. It is published and released by United Nations (UN).
- 2. According to the report, India is projected to overtake China as the world's most populous country by 2050.

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:** The key message from the **UN's World Population Prospects 2019 report** is that national leaders must redouble their efforts to raise education, health and living standards for people everywhere.

- India is projected to become the most populous country by 2027 surpassing China, and host 1.64 billion people by 2050;
- The world as a whole could be home to 8.5 billion people in just over a decade from now, and the number could go up to 9.7 billion by mid-century.
- The largest increases in population between 2019 and 2050 will take place in: India, Nigeria, Pakistan, the Democratic Republic of the Congo, Ethiopia, the United Republic of Tanzania, Indonesia, Egypt and the United States of America (In descending order of the expected increase).
- The UN report shows migration to countries with a falling ratio of working-age people to those above 65 will be steady, as those economies open up to workers to sustain economic production.
- Japan has the lowest such ratio, followed by Europe and the Caribbean; in over three decades, North America, Eastern and Southeastern Asia will join this group.
- India meanwhile will have a vast number of young people and insufficient natural resources left for exploitation. Preparing for the changes and opportunities migration offers will depend on a skills revolution.

# Q.28) Consider the following statements regarding the National Safai Karamcharis Finance & Development Corporation (NSKFDC):

- 1. It is a government undertaking owned by both Central and state governments.
- 2. It is an apex corporation for the all-round socio-economic upliftment of the Safai Karamcharis, Scavengers and their dependants throughout India.
- 3. It is the nodal agency for implementation of the Central Sector Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS).

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: C

**Explanation:** National Safai Karamcharis Finance & Development Corporation(NSKFDC), A **wholly owned Govt. of India Undertaking** under the Ministry of Social Justice & Empowerment (M/o SJ&E) was set up on 24th January 1997 as a Company "Not for Profit" under Section 25 of the Companies Act, 1956.

- NSKFDC is in operation since October, 1997, as an **Apex Corporation** for the all round socio-economic upliftment of the Safai Karamcharis, Scavengers and their dependants throughout India, through various loan and non-loan based schemes.
- Apart from operating various loan and non-loan based schemes for the upliftment of the target group, NSKFDC is playing a vital role in elimination of manual scavenging the worst surviving symbol of untouchability.
- NSKFDC has been designated as the **Nodal Agency for implementation of the Central Sector Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS)** under the aegis of the Ministry of Social Justice & Empowerment.

## Q.29) Consider the following statements regarding the Dr. Ambedkar scheme for Social integration through Inter Caste Marriages:

- 1. It is applicable to 1000 couples annually.
- 2. Each couple gets 5 lakh rupees.
- 3. To avail the scheme, one of the couple should belong to either schedule caste or schedule tribes.

Which of the statements given above is/are correct?

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

## ANS: D

**Explanation:** Under the Dr. Ambedkar scheme for Social integration through Inter Caste Marriages scheme, **500 couples can apply annually. Each couple gets Rs 2.5 lakh, of which Rs 1.5 lakh is paid up-front. The balance amount** is kept as a fixed deposit and released to the couple after three years

- The number of couples who can avail the scheme in a state depends on its Scheduled Caste population as per the 2011 census.
- Among the beneficiary couple, one of the spouses should belong to Scheduled Caste and the other to a Non-Scheduled Caste.
- It shall be the discretion of the Minister of Social Justice & Empowerment & Chairman of Dr. Ambedkar Foundation to sanction the incentive to the Couple.

**Q.30)** The **Sanitation** is related to which of the following List of Schedule 7 of Indian Constitution?

- a) Union list
- b) State List
- c) Concurrent list
- d) None

#### ANS: B

**Explanation:** The **State List** lists subjects under which the legislature of a state may make laws. Public order, police, public health and **sanitation**; hospitals and dispensaries, betting and gambling are some of the subjects that come under the state.

## Q.31) Which of the following pension scheme (s) is/are run by the **Pension Fund** Regulatory & Development Authority (PFRDA)?

- 1. National Pension System (NPS)
- 2. Atal Pension Yojana
- 3. Pradhan Mantri Shram Yogi Maandhan (PM-SYM) 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 Pension Fund Regulatory & Development Authority Act was passed on 19th September, 2013 and the same was notified on 1st February, 2014.

- PFRDA is regulating NPS, subscribed by employees of Govt. of India, State Governments and by employees of private institutions/organizations & unorganized sectors.
- Atal Pension Yojana (APY), a pension scheme launched by Government of India and run by PFRDA is focused on the unorganized sector workers.
- Under the APY, minimum guaranteed pension of Rs. 1,000/- or 2,000/- or 3,000/- or 4,000 or 5,000/- per month will start after attaining the age of 60 years depending on the contributions by the subscribers for their chosen pension amount.

Q.32) The "eShakti" initiative, sometimes seen in news is related to which of the following?

- a) Self Help Groups (SHG)
- b) Old age pension
- c) Women entrepreneurship
- d) Women skill development

#### ANS: A

**Explanation: eShakti or Digitization of SHGs** is an initiative of Micro Credit and Innovations Department of NABARD in line with our Hon'ble PM statement, 'we move with the dream of electronic digital India...'

- Digital India is an Rs 1.13-lakh crore initiative of Government of India to integrate the government departments and the people of India and to ensure effective governance. It is to "transform India into digital empowered society and knowledge economy".
- Keeping in view the Government of India's mission for creating a digital India, NABARD launched a project for digitization of all Self Help Group (SHG) in the country.
- The project is being implemented in 250 districts across the country.

Q.33) Consider the following statements regarding the Good Governance Index (GGI):

- 1. Kerala tops the Good Governance Index.
- 2. Country is divided into five zones for the purpose of rankings.

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: Tamil Nadu has bagged the top position** in the composite ranking for good governance index (GGI), followed by Maharashtra and Karnataka, according to data provided by the Personnel Ministry.

- The **states and union territories have been divided into three groups** big states, north-east and hill states, and union territories for the rankings based on certain indicators separately.
- The objectives of GGI are to provide quantifiable data to compare the state of governance in all states and union territories, enable them to formulate and implement suitable strategies for improving governance and shift to result oriented approaches and administration.

Q.34) Consider the following statements regarding the **National Health Profile (NHP)** 2019:

- 1. It is a biennial report released by the Central Bureau of Health Intelligence (CBHI).
- 2. According to NHP 2019, life expectancy has increased from 49.7 years in 1970-75 to 70.2 in 2012-16.

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:** The 14th edition of National Health Profile and its e-book (digital version) has been released by the Central Bureau of Health Intelligence (CBHI).

- **CBHI has been publishing (annually)** the National Health Profile since 2005 and its digital version since 2015.
- Life expectancy in India has increased from 49.7 years in 1970-75 to 68.7 years in 2012-16, as per the National Health Profile 2019.
- For the same period, the life expectancy for females is 70.2 years and 67.4 years for males.

**Q.35)** The "**Empowered Action Group (EAG) States**" often seen in news, which of the following states are under EAG?

- 1. Bihar
- 2. Uttar Pradesh
- 3. West Bengal
- 4. Madhya Pradesh
- 5. Odisha
- 6. Assam

Select the correct answer using the code given below:

- a) 1, 2, 3, 4 and 5 only
- b) 1, 2, 4 and 5 only
- c) 1, 2, 4, 5 and 6 only
- d) 1, 2, 3, 4, 5 and 6 only

#### ANS: B

**Explanation:** India's MMR has declined from 130 per 1 lakh live births in 2014-2016 to 122 per 1 lakh live births in 2015-2017 as per the recently released Sample Registration System (SRS) 2015-2017 bulletin for MMR. A decline of 8 points (6.2%) has been observed.

- The bulletin categorizes the country into three groups: Empowered Action Group (EAG), Southern States and other states.
- The following states are comes under EAG are Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, Orissa and Rajasthan.

Q.36) The Healthy States, Progressive India report 2019 is released by which of the following?

- a) NITI Aayog
- b) Central Bureau of Health Intelligence (CBHI)
- c) Sample Registration System
- d) National Sample Survey Office (NSSO)

#### ANS: A

**Explanation:** Healthy States, Progressive India is **an annual report of Niti Aayog** ranks states and Union territories innovatively on their year-on-year incremental change in health outcomes, as well as, their overall performance with respect to each other.

The report has been prepared by Niti Aayog in collaboration with the Ministry of Health and Family Welfare and technical assistance from the World Bank.

Q.37) The Global Education Monitoring Report is released by which of the following?

- a) United Nations Children's Fund (UNICEF)
- b) United Nations Educational, Scientific and Cultural Organization (UNESCO)
- c) World Bank
- d) World Economic Forum

#### ANS: B

Explanation: The Global Education Monitoring Report is released by the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Q.38) The Bhilwara model is recently seen in news is related to which of the following?

- a) CoVID-19 tackling
- b) Controlling locust attack
- c) Migrants mobilization
- d) None

#### ANS: A

**Explanation:** The **Bhilwara COVID-19 containment "model" refers** to the steps taken by the administration in Rajasthan's Bhilwara district to contain the disease, after it emerged as a hotspot for coronavirus positive cases.

- The measures taken by the Rajasthan government include imposing a curfew in the district which also barred essential services, extensive screening and house-to-house surveys to check for possible cases, and detailed contact tracing of each positive case so as to create a dossier on everybody they met ever since they got infected.
- The Bhilwara model (in Rajasthan) has become a successful example for the world to emulate in tackling the Covid-19 crisis **because of the efforts of local bureaucracy**.

• This earmarks the importance of the role of civil services in containing the spread of disease at community level.

**Q.39)** The **IS 10500:2012** of Bureau of Indian Standards (BIS) deals with which of the following?

- a) Drinking water
- b) Air quality
- c) Packed food standards
- d) Electric appliances

#### ANS: A

**Explanation:** The report of the Ministry of Consumer Affairs, Food and Public Distribution red-flagging **tap water quality** in major Indian cities comes as no surprise, given that many official water distribution agencies routinely advise consumers to consume only boiled water.

- Going by the matrix of tests carried out by the Bureau of Indian Standards for the Ministry, Delhi has abysmal water quality, Chennai and Kolkata rank very low, and Mumbai is the only city with acceptable results.
- City water systems are normatively required to comply with the national standard for drinking water IS 10500:2012, but most obviously feel no compulsion to do so.

Q.40) Consider the following statements regarding the Comptroller and Auditor General of India (CAG):

- 1. He is the guardian of the public purse and controls the entire financial system of the country.
- 2. He is appointed by the President of India.

Which of the statements given above is/are correct?

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

## ANS: C

**Explanation:** The Constitution of India (Article 148) provides for an independent office of the Comptroller and Auditor General of India (CAG).

- He is the head of the Indian Audit and Accounts Department.
- He is the guardian of the public purse and controls the entire financial system of the country at both the levels—the Centre and the state.
- His duty is to uphold the Constitution of India and laws of Parliament in the field of financial administration.
- The **CAG** is appointed by the president of India by a warrant under his hand and seal.

**Q.41)** Which of the following matters both the houses of Parliament is/are **equal in powers**?

- 1. Election of the President.
- 2. Approving the proclamation of emergency.
- 3. Proclamation regarding failure of constitutional machinery in States.

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:** Under article 75(3) of the Constitution, the Council of Ministers is collectively responsible to Lok Sabha which means Rajya Sabha cannot make or unmake the Government.

- It can, however, exercise control over the Government and this function becomes quite prominent, particularly when the Government does not enjoy majority in Rajya Sabha.
- Ministers may belong to either House of Parliament. The Constitution does not make any distinction between the Houses in this regard.
- Every Minister has the right to speak and take part in the proceedings of either House but he is entitled to vote only in the House of which he is a member.
- Similarly, with regard to powers, privileges and immunities of the Houses of Parliament, their members and committees thereof, the two Houses are placed absolutely on equal footing by the Constitution.
- Other important matters in respect of which both Houses enjoy equal powers are
  election and impeachment of the President, election of the Vice-President,
  approving the Proclamation of Emergency, the proclamation regarding failure of
  constitutional machinery in States and financial emergency. In respect of
  receiving reports and papers from various statutory authorities, etc., both Houses
  have equal powers.

**Q.42)** With reference to the **Parliamentary Standing Committees**, which of the following statements is/are correct?

- 1. Committee meetings are held in 'closed door'.
- 2. Members of the committee are bound by their party whips.

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:** In a parliamentary democracy, Parliament has broadly two functions, which are lawmaking and oversight of the executive branch of the government.

- Parliament is the embodiment of the people's will. Committees (Parliamentary standing committees) are an instrument of Parliament for its own effective functioning.
- Given the volume of legislative business, discussing all Bills under the consideration of Parliament in detail on the floor of the House is impossible.
- Committees are platforms for threadbare discussion on a proposed law.
- At least in principle, the assumption is that the smaller cohort of lawmakers, assembled on the basis of the proportional strength of individual parties and interests and expertise of individual lawmakers, could have more open, intensive and better informed discussions.
- Committee meetings are 'closed door' and members are not bound by party whips, which allows them the latitude for a more meaningful exchange of views as against discussions in full and open Houses where grandstanding and party positions invariably take precedence.

## Q.43) "The cabinet is a hyphen that joins the buckle that binds the executive and legislative departments together"- is said by?

- a) Ivor Jennings
- b) Bagehot
- c) Montesquieu
- d) Herbert Marrison

#### ANS: B

**Explanation:** In the parliamentary system, the legislature and the executive are together and inseparable.

- The cabinet acts as the leader of legislature as well as the executive.
- As Bagehot points out, 'the cabinet is a hyphen that joins the buckle that binds the executive and legislative departments together.'
- Hence, the whole system of government goes against the letter and spirit of the theory of separation of powers. In fact, there is a fusion of powers.

**Q.44)** Which of the following are the **criteria** for declaring any area as a "Scheduled Area" under the Fifth Schedule?

- 1. Preponderance of tribal population.
- 2. Compactness and reasonable size of the area.
- 3. Economic backwardness of the area as compared to the neighbouring areas.
- 4. Area surrounded by forests.

Select the correct answer using the code given below:

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

#### ANS: C

**Explanation:** As per the Constitutional provision under Article 244 (1) of the Constitution of India, the 'Scheduled Areas' are defined as 'such areas as the President may by order declare to be Scheduled Areas' – as per paragraph 6(1) of the Fifth Schedule of the Constitution of India.

- The specification of "Scheduled Areas" in relation to a State is by a notified order of the President, after consultation with the Governor of that State.
- In accordance with the provisions of paragraph 6(2) of the Fifth Schedule of the Constitution of India, the President may increase the area of any Scheduled Area in a State after consultation with the Governor of that State; and make fresh orders redefining the areas which are to be Scheduled Areas in relation to any State.
- The same applies in the case of any alteration, increase, decrease, incorporation of new areas, or rescinding any Orders relating to "Scheduled Areas".
- At present, Scheduled Areas have been declared in the States of Andhra Pradesh (including Telangana), Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha and Rajasthan.

The criteria for declaring any area as a "Scheduled Area" under the Fifth Schedule are:

- Preponderance of tribal population,
- Compactness and reasonable size of the area.
- A viable administrative entity such as a district, block or taluk, and
- Economic backwardness of the area as compared to the neighbouring areas.

These **criteria are not spelt out in the Constitution of India** but have become well established. Accordingly, since the year 1950 to 2007 Constitutional Order relating to Scheduled Areas has been notified.

**Q.45)** According to Article 348 (1) of Indian Constitution, which of the following area (s) is/are **English language** officially used?

- 1. Supreme Court
- 2. High Court
- 3. Drafting bills

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 higher judiciary appeared to be the sole exception to this English-to-Hindi journey as Article 348(1) stipulates the use of English in the Supreme Court and High Courts as well as for drafting Bills, Acts and Orders.

But Article 348(2) read with Section (7) of the Official Languages Act 1963 provides for Hindi or other official languages to be used in High Courts "in addition to English".

**Q.46)** Arrange the following stages of **budget presentation** in Parliament:

- 1. Presentation of budget
- 2. General discussion
- 3. Voting on demands for grants
- 4. Scrutiny by departmental committees
- 5. Passing of appropriation bill

Select the correct answer using the code given below:

- a) 1-2-3-4-5
- b) 1 2 4 3 5
- c) 1-2-3-5-4
- d) 1 3 2 4 5

#### ANS: B

**Explanation:** The budget goes through the following six stages in the Parliament:

- Presentation of budget.
- General discussion.
- Scrutiny by departmental committees.
- Voting on demands for grants.
- · Passing of appropriation bill.
- · Passing of finance bill.

Q.47) Consider the following statements regarding **Tribal Advisory Council** (**TAC**):

- 1. Each state having scheduled areas has to establish a tribal advisory council.
- 2. It is to consist of 20 members, three-fourths of whom are representatives of the scheduled tribes in the state assembly.

Which of the statements given above is/are correct?

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

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d) Neither 1 nor 2

#### ANS: C

Explanation: Each state having scheduled areas has to establish a tribal advisory council to advice on welfare and advancement of the scheduled tribes.

- It is to consist of 20 members, three-fourths of whom are to be the representatives of the scheduled tribes in the state legislative assembly.
- A similar council can also be established in a state having scheduled tribes but not scheduled areas therein, if the president so directs.

## Q.48) Consider the following statements regarding Central Administrative Tribunal (CAT):

- 1. CAT exercises original jurisdiction in relation to recruitment and all service matters of public servants.
- 2. CAT is not bound by the procedure laid down in the Civil Procedure Code of 1908. 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: D

**Explanation:** The Central Administrative Tribunal (CAT) was set up in 1985 with the principal bench at Delhi and additional benches in different states.

- At present, it has 17 regular benches, 15 of which operate at the principal seats of high courts and the remaining two at Jaipur and Lucknow.
- These benches also hold circuit sittings at other seats of high courts.
- The CAT exercises original jurisdiction in relation to recruitment and all service matters of public servants covered by it.
- Its jurisdiction extends to the all-India services, the Central civil services, civil posts under the Centre and civilian employees of defence services.
- However, the members of the defence forces, officers and servants of the Supreme Court and the secretarial staff of the Parliament are not covered by it.
- The CAT is not bound by the procedure laid down in the Civil Procedure Code of 1908. It is guided by the principles of natural justice.
- These principles keep the CAT flexible in approach. Only a nominal fee of 50 is to be paid by the applicant. The applicant may appear either in person or through a lawyer.

### Q.49) Consider the following statements regarding the National Emergency (Article 352):

- 1. President proclaims a national emergency only after receiving a written recommendation from the cabinet.
- 2. President can declare a national emergency only on the actual occurrence of war or external aggression.

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:** Under Article 352, the President can declare a national emergency when the security of India or a part of it is threatened by war or external aggression or armed rebellion.

- It may be noted that the president can declare a national emergency even before the actual occurrence of war or external aggression or armed rebellion, if he is satisfied that there is an imminent danger.
- The President, however, can proclaim a national emergency only after receiving a written recommendation from the cabinet.
- This means that the emergency can be declared only on the concurrence of the cabinet and not merely on the advice of the prime minister.
- In 1975, the then Prime Minister, Indira Gandhi advised the president to proclaim emergency without consulting her cabinet. The cabinet was informed of the proclamation after it was made, as a fait accompli.
- The 44th Amendment Act of 1978 introduced this safeguard to eliminate any possibility of the prime minister alone taking a decision in this regard.

## Q.50) Consider the following statements regarding the qualifications of Supreme Court Judge:

- 1. He should be a citizen of India.
- 2. He should have been a Judge of a High Court for 5 years.
- 3. He should have been Advocate of a High Court for 7 years.

Which of the statements given above is/are correct?

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

#### ANS: B

**Explanation:** A person to be appointed as a judge of the Supreme Court should have the following qualifications:

- 1. He should be a citizen of India.
- 2. **(A)** He should have been a judge of a High Court (or high courts in succession) for five years; or **(B)** He should have been an advocate of a High Court (or High Courts in succession) for ten years; or **(C)** He should be a distinguished jurist in the opinion of the president.

From the above, it is clear that the Constitution has not prescribed a minimum age for appointment as a judge of the Supreme Court.

**Q.51)** The term "hometown diplomacy" is a bilateral relation between India and which of the following country?

- a) China
- b) United States of America
- c) Japan
- d) Russia

#### ANS: A

**Explanation:** On April 1, 2020, China and India usher in the important moment of the 70th anniversary of the establishment of diplomatic relations.

- Looking back at the past 70 years, China-India relations have moved ahead despite wind and rain and gone through an extraordinary development path.
- In the 1950s, the leaders of the older generation of the two countries made the historical decision to establish diplomatic relations between China and India, and jointly advocated the Five Principles of Peaceful Coexistence.

- "Hindi Chini Bhai Bhai" (Indians and Chinese are brothers) resounded throughout our two countries.
- From the 1980s, the two sides agreed to solve the boundary question through peaceful and friendly consultation, established strategic and cooperative partnership for peace and prosperity, and achieved all-round development of bilateral relations.

After 2013, Chinese President Xi Jinping and Indian Prime Minister Narendra Modi initiated the "hometown diplomacy", held two informal summits in Wuhan and Chennai respectively, carried out strategic communication on overarching, long-term and strategic issues of global and regional importance, and agreed to strengthen the closer partnership for development between the two countries.

Q.52) Consider the following statements regarding the Eastern Economic Forum (EEF):

- 1. EEF was established in 2010 and forum conducts its meetings biannually.
- 2. India pledged to extend \$ 10 billion line of credit to Russia's far eastern region at 5<sup>th</sup> EEF. 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: The Eastern Economic Forum was established by decree of the President of the Russian Federation Vladimir Putin in 2015 to support the economic development of Russia's Far East and to expand international cooperation in the Asia-Pacific region.

Unveiling the Russian edition of India's 'Look East, Act East' policy, Prime Minister Narendra Modi pledged on September 2019 to extend a \$1 billion Line of Credit to Russia's Far East region (RFE).

Q.53) The Global Forum on Remittances, Investment and Development (GFRID) is related to which of the following?

- a) The United Nations Conference on Trade and Development
- b) The United Nations Industrial Development Organization
- c) World Economic Forum
- d) International Fund For Agricultural Development (IFAD)

## ANS: D

**Explanation:** The Global Forum on Remittances, Investment and Development (GFRID) brings together key decision makers, stakeholders and practitioners who are engaged in the field of remittances and migration for development.

- Since its first forum in 2007, IFAD has gathered over 1,000 participants from the public and private sector, and the civil society, to facilitate the creation of partnerships and the exchange of best practices in maximizing the impact of remittances to the benefit of migrants' communities of origin.
- In doing so, IFAD partners with key international financial institutions and other prominent organizations, such as the European Commission (2015) and the United Nations Department of Economic and Social Affairs (2017).
- The forum is held biannually, in conjunction with the observance of the International Day of Family Remittances (IDFR) on 16 June.

**Q.54)** The "Lucknow Declaration" is sometimes seen in news is related to which of the following?

- a) Indo-African joint declaration on terrorism
- b) Indo-African joint declaration on climate change
- c) Indo-China declaration on bilateral investment
- d) Indo-European Union declaration on bilateral investment

#### ANS: A

**Explanation:** India and several African countries on February 2020 pledged to deepen cooperation to combat the growing threat of terrorism and preserve maritime security by sharing information, intelligence and surveillance, in a joint deceleration (lucknow declaration) adopted at the first India- Africa Defence Ministers conclave at the ongoing Defexpo.

**Q.55)** The "Sagarmatha Sambaad" is sometimes seen in news is an initiative of which of the following country?

- a) Bhutan
- b) India
- c) Nepal
- d) Pakistan

#### ANS: C

**Explanation:** Nepal has invited the Prime Ministers of India and Pakistan along with several other heads of government and heads of state for the **Sagarmatha Sambaad**.

The first ever multi-stakeholder dialogue event is expected to be the biggest diplomatic initiative in Nepal's recent history that will be attended by many global figures apart from the leaders of the member countries of the South Asian Association for Regional Cooperation (SAARC).

# Q.56) Consider the following statements regarding the Migration and Mobility Partnership Agreement:

- 1. It is a bilateral agreement between India and United States of America.
- 2. It enhances people-to-people contacts, fostering mobility of students and strengthening cooperation on issues related to irregular migration and human trafficking between the two sides.
- 3. It is valid for 7 years and it also incorporates automatic approval after 7 years.

Which of the statements given above is/are correct?

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

#### ANS: C

Explanation: The Union Cabinet has ratified the Migration and Mobility Partnership Agreement between India and France aimed at enhancing people-to-people contacts, fostering Mobility of students, academics, researchers and skilled professionals.

- The Agreement was actually signed in March, 2018 during the State Visit of the French President to India.
- The **Agreement is initially valid for a period of seven years**, incorporates provision for automatic renewal and a monitoring mechanism through a Joint Working Group.

**Q.57)** The "**West Asia Peace Plan**" is sometimes seen in news is an initiative of which of the following?

- a) United States of America
- b) Permanent Security Council Countries (P5 members)
- c) Russia
- d) China and Russia

#### ANS: A

**Explanation:** The West Asia peace plan unveiled by U.S. President Donald Trump on January 2020 seeks to give the Israelis what they have long wanted — an expansive state with Jerusalem as its "undivided capital" and tight security control over a future Palestinian state.

- With his plan, Mr. Trump is actually pushing to revive the stalled two-state talks between the Israelis and the Palestinians, but on his own terms.
- Israeli Prime Minister Benjamin Netanyahu, who had earlier spoken against the twostate solution, has accepted the Trump plan, while appearing beside the President in the White House.
- The Palestinians were absent.

**Q.58)** The term "**Principle of Jus Cogens**" is recently in news is related to which of the following?

- a) Right against torture
- b) Right to conservation of environment
- c) Right to privacy
- d) Right to migration

## ANS: A

**Explanation:** The opposition party in December, 2019 claimed that the Citizenship (Amendment) Act not only "violates" provisions of the Constitution but also falls afoul of an international convention to which India is a signatory.

- India was a signatory to the international convention on torture that talks about "providing shelter to people who face torture in another country".
- "India is bound by the **principle of jus cogens** that ensures human rights to those who are tortured and persecuted".

**Q.59)** The "**Urban Climate Change Resilience Trust Fund**" is often seen in news is related to which of the following?

- a) Global Environment Facility
- b) Asian Development Bank
- c) World Bank
- d) European Reconstruction Development fund

#### ANS: B

**Explanation:** The Urban Climate Change Resilience Trust Fund is a \$150 million multidonor trust fund (2013-2021) administered by Asian Development Bank under the Urban Financing Partnership Facility.

• It aims to support fast-growing cities in Asia to reduce the risks poor and vulnerable people face from floods, storms or droughts, by helping to better plan and design infrastructure to invest against these impacts.

 Recently grant of \$5 million from the multi-donor Urban Climate Change Resilience Trust Fund (UCCRTF) will be provided to build climate change resilient infrastructure in Visakhapatnam.

**Q.60)** The "Solar Risk Mitigation Initiative (SRMI)" is recently seen in news is launched by which of the following?

- a) World Bank
- b) UNFCCC
- c) World Economic Forum
- d) United Nations Development Programme

#### ANS: A

Explanation: The World Bank has operationalised a Solar Risk Mitigation Initiative (SRMI) with \$333 million for 22 African countries.

- The idea was incubated as the Common Risk Mitigation Mechanism by the International Solar Alliance.
- Essentially, the scheme reduces the cost of capital through credit enhancement mechanisms.
- SRMI has given a big push to solar projects in countries like Maldives to start with.
- SRMI is trying to enhance the mechanism both vertically and horizontally.
- Many island countries now want to be covered under the SRMI.
- This unique approach offers technical assistance to help countries develop evidence-based solar targets, implement a sustainable solar program, and maintain robust procurement processes with transaction advisors.



## Science and technology

Q.1) The "LOx methane" is recently in news is related to which of the following?

- a) Space rocket engine fuel
- b) High speed diesel variant
- c) Bio-diesel
- d) None

#### ANS: A

**Explanation:** The Indian Space Research Organization (ISRO) is developing methane-powered rocket engines.

- The space agency is developing two 'LOx methane' engines (liquid oxygen oxidiser and methane fuel) engines.
- One of the two projects is trying to convert the existing cryogenic engine, which uses liquid hydrogen for fuel, into a LOx methane engine.
- The other is a smaller engine of 3 tonnes thrust, which will feature an electric motor.
- These are being developed at ISRO's Liquid Propulsion Systems Centre at Trivandrum.

Q.2) The "Head on Generation (HOG)" technology is sometimes in news is related to which of the following?

- a) Driverless car
- b) Drones
- c) Tractors
- d) Trains

#### ANS: D

**Explanation:** The South Central Railway (SCR) announced the introduction of a new technology – Head On Generation (HOG) system – in Telangana Express where power from the engine would be supplied to the entire train for lighting and air-conditioning.

- The trains like these have two power cars known as End On Generators (EOG) on either end to provide electricity to all the coaches.
- These power cars produce electricity by the diesel generators with each using 40 litres of fuel per hour for a non-AC coach and 65-70 litres of diesel per hour per coach in case of an AC coach.
- The new HOG technology obviates the need for using diesel as power is tapped from the overhead electric traction lines through a pantograph to the train engine and the same is distributed to the trailing coaches.
- Earlier, the power supply from the overhead electric traction was being used to only run the engine and haul the coaches.
- "The new system does not require any diesel and hence, will reduce air and noise pollution, besides providing uninterrupted illumination in all the coaches.
- On an average, it will reduce carbon emission by 700 metric tonnes per year per train".

**Q.3)** The "EChO Network" is sometimes in news is related to which of the following?

- a) Space radar system
- b) Defense radar system
- c) Cross-disciplinary leadership
- d) Network of Government data

#### ANS: C

**Explanation:** EChO Network, a national program to provide a template for **cross-disciplinary leadership** in India with the specific focus of increasing research, knowledge, and awareness of Indian ecology and the environment.

- India faces unprecedented threats to its human environmental and ecosystems, solving which requires a confluence of India's strong technological expertise and knowledge of the natural world itself.
- EChO Network would develop a national network to catalyse a new generation of Indians who can synthesize interdisciplinary concepts and tackle real-world problems in medicine, agriculture, ecology, and technology.
- With no precedent for such a network anywhere in the world, EChO Network establishes a new platform to change how science is embedded in our modern society.
- Through interactive sessions with citizens, industry, academia, and the government, the Network will identify gaps in knowledge regarding selected topics in human and environmental ecosystems.
- The program will then train postdoctoral leaders in research and outreach on these topics, while also incorporating current public and private efforts into a national network.
- It would then go on to establishing nation-wide awareness in these issues through public discourse and education for citizens, industry, and government with information exchange at all educational levels.
- Over time EChO Network intends to create an international distributed institute comprising individuals housed within industry, government, private, and academic sectors, combining their expertise and resources collectively to tackle large scale problems.
- **Q.4)** Recently a **Bilateral Patent Prosecution Highway (PPH)** pilot program has commenced between the Indian Patent Office (IPO) and which of the following?
- a) Switzerland Patent Office
- b) Japan Patent Office
- c) The United States Patent and Trademark Office
- d) The National Industrial Property Institute (France)

### ANS: B

**Explanation:** A Bilateral Patent Prosecution Highway (PPH) pilot program has commenced between the Indian Patent Office (IPO) and the **Japan Patent Office** (JPO).

The Patent Prosecution Highway (PPH) is a set of initiatives for providing accelerated patent prosecution procedures by sharing information between some patent offices.

## Q.5) Consider the following statements regarding the Local Treatment of Urban Sewage streams for Healthy Reuse (LOTUS-HR) program:

- 1. It is jointly supported by Government of India and Government of Sweden.
- 2. It aims to demonstrate a novel holistic waste-water management approach that will produce clean water that can be reused for various proposes.
- 3. The partners in the project are IIT-Delhi, NEERI and The Energy and Resources Institute (TERI)

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: C

**Explanation:** Department of biotechnology (DBT) and NWO, the Netherlands Science Agency announced a joint call for proposals to clean the Barapullah drain in New Delhi.

- LOTUS-HR stands for Local Treatment of Urban Sewage streams for Healthy Reuse plant.
- The project was initiated in 2017. It aims to demonstrate a novel holistic wastewater management approach that will produce clean water that can be reused for various proposes.
- The project also aims to simultaneously recover nutrients and energy from the urban wastewater thus converting drain into profitable mines.
- The project is jointly supported by Department of Biotechnology, Government of India and the Netherlands Organization for Scientific Research, Government of the Netherlands.
- The partners in the project are IIT-Delhi, NEERI and The Energy and Resources Institute (TERI).

## **Q.6)** Consider the following statements regarding the **deep sea mining**:

- 1. Allocation of deep sea mining areas is vested with International Seabed Authority.
- 2. India was the first country to receive the status of a Pioneer Investor in 1987 for nodule exploration in Indian Ocean.

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: The International Seabed Authority (ISA), an autonomous international organisation established under the 1982 United Nations Convention on the Law of the Sea, allots the 'area' for deep-sea mining.

- India was the first country to receive the status of a Pioneer Investor in 1987 and was given an area of about 1.5 lakh sq km in the Central Indian Ocean Basin (CIOB) for nodule exploration.
- In 2002, India signed a contract with the ISA and after complete resource analysis of the seabed 50% was surrendered and the country retained an area of 75,000 sq km.

## Q.7) The National Genome Grid is recently in news is related to which of the following?

- a) All non-communicable diseases
- b) Cancer
- c) Tuberculosis
- d) CoVID-19

#### ANS: B

**Explanation:** In a move to take **cancer research** to the next level and make treatment viable for people of different economic classes, the government has plans to set up a National Genomic Grid, which will study genomic data of cancer patients from India.

- The grid to be formed will be in line with the National Cancer Tissue Biobank (NCTB) set up at the Indian Indian Institute of Technology, Madras.
- And it will collect samples from cancer patients to study genomic factors influencing cancer and identifying the right treatment modalities for the Indian population.

- "The NCTB is functioning in close association with the Indian Council for Medical Research (ICMR).
- NCTB, which has the capacity to stock 50,000 genomic samples from cancer patients, already has samples from 3,000 patients.
- The genomic samples will help researches to have India-specific studies on cancers.
- The government plans to set up the National Genomic Grid in the same style with pan-India collection centres by bringing all cancer treatment institutions on board.

## Q.8) Consider the following statements regarding the Ramanujan Machine:

- 1. It is developed by scientists from Technion Israel Institute of Technology.
- 2. It is a computer machine that performs high end data assessment.

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:** Scientists from Technion — Israel Institute of Technology has developed a concept they have named the Ramanujan Machine, after the Indian mathematician.

- It is not really a machine but an algorithm, and performs a very unconventional function.
- With most computer programs, humans input a problem and expect the algorithm to work out a solution.
- With the Ramanujan Machine, it works the other way round. Feed in a constant, say the well-know pi, and the algorithm will come up with a equation involving an infinite series whose value, it will propose, is exactly pi. Over to humans now: let someone prove that this proposed equation is correct.

#### **Q.9)** Consider the following statements regarding the **Prithvi-II missile**:

- 1. It is a surface-to-air tactical missile with a strike range of 1500 km.
- 2. It is capable of carrying 500 to 1,000 kg of warheads, both conventional as well as nuclear.

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: Prithvi-II missile is a surface-to-surface tactical missile with a strike range of 350 km.

- It is developed by DRDO under Integrated Guided Missile Development Program (IGMDP).
- It is capable of carrying 500 to 1,000 kg of warheads, both conventional as well as nuclear.
- The state-of-the-art missile is powered by liquid propulsion twin engines.
- It uses an advanced inertial guidance system with maneuvering orbit to hit its target.
- It was inducted into armour of the defence forces in 2003.

**Q.10)** The **Spike missile** is newly acquired from Israel by Indian government is related to which of the following?

- a) Anti-tank missile
- b) Torpedo
- c) Nuclear payload capable missile
- d) None

#### ANS: A

**Explanation:** The Indian Army successfully tested two newly acquired **Spike long-range (LR) anti-tank guided missiles** at the Infantry School at Mhow, Madhya Pradesh.

- The Army has recently procured a small batch of 12 launchers and 250 missiles from Israel using its new financial powers to make emergency procurements sanctioned by the Defence Ministry.
- "Spike-LR is a fourth generation missile, which can engage a target with precision at ranges up to 4 km.
- In addition to the fire-and-forget capability, the missile has the ability to fire, observe and update, providing substantial flexibility to the firer to pinpoint the impact point, as also the ability to switch to a different target mid-flight," the manufacturer, Rafael Advanced Defense Systems, of Israel.

## Q.11) Consider the following statements regarding the Acute Encephalitis Syndrome (AES):

- 1. It is characterized as acute-onset of fever and a change in mental status and/or new-onset of seizures in a person of any age at any time of the year.
- 2. The causative agents of AES are viruses, Bacteria, fungus, Chemicals and toxins. 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: Acute encephalitis syndrome (AES) is a serious public health problem in India. It is characterized as acute-onset of fever and a change in mental status (mental confusion, disorientation, delirium, or coma) and/or new-onset of seizures in a person of any age at any time of the year.

- The syndrome most commonly affects children and young adults and can lead to considerable morbidity and mortality.
- Viruses are the main causative agents in AES cases, although other sources such as bacteria, fungus, parasites, spirochetes, chemicals, toxins and noninfectious agents have also been reported over the past few decades.
- In May-June 2019, the acute encephalitis syndrome (AES) in Bihar's Muzaffarpur, Vaishali, Sheohar and East Champaran districts has so far claimed the lives of over 100 children.
- More than 400 children with AES have been admitted to various hospitals. **Most of the** deaths have been attributed to low blood sugar level (hypoglycaemia).
- In Bihar, convulsions in children (which is AES) are found in combination with hypoglycaemia.

Q.12) Consider the following statements regarding the Japanese Encephalitis (JE):

1. It is a mosquito-borne viral infection of the brain.

- 2. It will spread from one person to another.
- 3. There is no cure for JE.

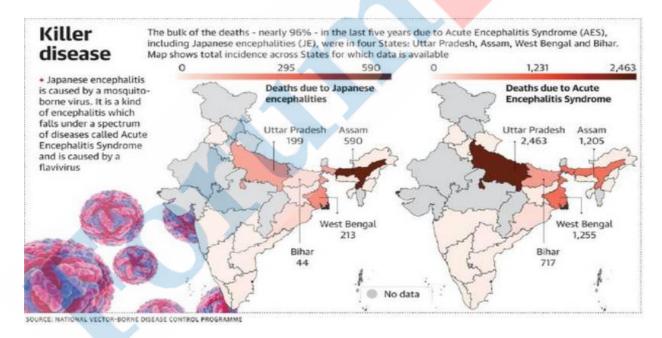
Which of the statements given above is/are correct?

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

#### ANS: C

**Explanation:** Japanese Encephalitis (JE) is a mosquito-borne viral infection of the brain. There is, however, a debate about the origin of the disease and whether it is enteroviruses — caused by virus found in pigs and birds. There is no cure for JE.

- The efficacy of the JE vaccine is between 85-90%. The lessons learnt from polio vaccination drives is that people left out of each round of vaccination are the most disenfranchised, most likely to take ill and least likely to seek medical care in time.
- One hundred and ninety positive cases of Japanese Encephalitis (JE) have been reported and 49 people have died of the vector-borne disease in Assam since January 2019 to June 2019.
- Assam is an ecologically favorable region for the spread of JE due to heavy rainfall, large paddy fields and water bodies and pig farming almost throughout the State.
- Pigs act as amplifying host for the JE virus transmitted through culex mosquito, as do wading birds such as herons and egrets.



Q.13) Consider the following statements regarding the Nipah Virus:

- 1. It is a zoonotic virus.
- 2. It is an RNA or Ribonucleic Acid virus.
- 3. It is classified under Bio-safety Level 4.

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: D

**Explanation:** A virus named after Kampung Sungai Nipah, a village in Malaysia, where it was first discovered in 1998-99.

- According to the World Health Organization (WHO) **Nipah is Zoonotic Virus**. "A zoonosis is any disease transmitted from vertebrate animals to humans."
- It **could be caused by a virus, bacteria, fungi or parasite**; some examples include anthrax, bird flu, ebola, dengue, rabies, malaria, swine flu and leptospirosis.
- Nipah is believed to be transmitted from what are called flying foxes, or mega bats, so called because they are the largest bat species. They eat fruits and live in trees.
- These are a part of the old-world fruit bat family, called pteropid bats. Bats often end
  up being reservoirs for a number of severe infectious diseases, including Ebola,
  SARS coronavirus, Nipah and Hendra.
- **Nipah is an RNA or Ribonucleic Acid virus**. "RNA viruses are the most common cause of emerging diseases in humans, attributable to the high mutation rate in RNA viruses compared to DNA viruses," says the book Essential Human Virology.
- Nipah belongs to a genus (category, in layperson speak) called the Henipavirus; the Hendra virus, also found on pteropid bats, belongs to this category too.
- The virus, which is classified as Bio-safety Level 4, meaning that it is highly infectious and needs a maximum containment facility, can be confirmed by an ELISA, RT-PCR or Serum Neutralization Test.
- The incubation period is anywhere between 5-14 days, but it can soon affect the respiratory and nervous system and patients can go into delirium or coma. Unfortunately, there is no definite treatment, except intensive supported care.

**Q.14)** Which of the following countries of World Health Organization's south-east Asia region is/are successfully controlled **hepatitis B**?

- 1. Bangladesh
- 2. Bhutan
- 3. Nepal

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: D

**Explanation:** On September 3 (2019), Bangladesh, Bhutan, Nepal and Thailand became the first four countries in the World Health Organization's south-east Asia region to have successfully controlled hepatitis B. The virus is said to be controlled when the disease prevalence is reduced to less than 1% among children less than five years of age.

**Q.15)** The **ETVAX vaccine** is often seen in news is related to which of the following?

- a) Diphtheria
- b) Diarrhea
- c) Tuberculosis
- d) Encephalitis

#### ANS: B

**Explanation:** A **potential vaccine against diarrhea** has been proven safe and effective in an early stage clinical trial carried out in Bangladesh in November 2019.

- The study, published in the journal The Lancet Infectious Diseases, studied the safety and effectiveness of an oral, inactivated vaccine candidate -- **ETVAX** -- against toxin-producing **E. coli bacteria** which caused diarrhea.
- According to the researchers, including those from the **University of Gothenburg in Sweden**, the specific type of the bacteria are the primary cause of diarrhea, leading to substantial illness and death in children in low- and middle-income countries (LMICs) as well as in travelers to LMICs.

**Q.16)** According to the Directorate General Foreign Trade (DGFT), **Beach Sand Minerals** (**BSM**) comprised a suite of seven minerals. Which of the following minerals are consists of BSM?

- 1. Limonite
- 2. Rutile
- 3. Zircon
- 4. Strontium
- 5. Monazite

Select the correct answer using the codes given below:

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

#### ANS: C

**Explanation:** According to the Directorate General Foreign Trade (DGFT) Beach Sand Minerals (BSM) comprised a suite of seven minerals.

- They are limonite, rutile, leucoxene (titanium being mineral), zircon (zirconium being mineral), garnet, sillimanite and monazite (a proscribed substance under the Atomic Energy Act of 1962 since it covers uranium and thorium).
- The suites of BSM were also called atomic minerals. Except garnet and sillimanite, others were prescribed substances under the Atomic Energy Act.

**Q.17)** Which of the following scientist (s) is/are **defined the weight** of a hydrogen atom as one?

- 1. Dalton
- 2. Johann Dobereiner
- 3. Dimitri Mendeleev

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: A

**Explanation:** Mankind has known materials such as gold, silver, mercury, iron, phosphorous, sulphur and others since antiquity.

- Alchemists tried making gold out of "base" metals with no success. But we had to
  wait until the English school teacher John Dalton who in 1808 came up with his "new
  system of chemical philosophy", where he proposed that chemical elements are made of
  atoms;
- Any given element is made entirely of one kind of atom and that each atom has a characteristic weight; chemical reactions occur when atoms of different elements interact with one another.

- Dalton and Thomas Thomson from England and Berzelius from Europe defined the weight of a hydrogen atom as one, and the atomic weights of other elements were measured using this standard.
- By the 1860s, the atomic weights of a large number of elements were published.

**Q.18)** The **genetic strategy** known as RIDL (the Release of Insects carrying Dominant Lethal genes), sometimes seen in news is related to which of the following?

- a) Mosquito
- b) Locusts
- c) Butterfly
- d) Beetles

#### ANS: A

**Explanation:** A new initiative aims at reducing the population of Aedes aegypti mosquito by introducing genetically modified version of mosquitoes.

- Aedes aegypti mosquito is the carrier of diseases such as Zika, dengue and chikungunya.
- The genetic strategy employed to control A. aegypti population known as RIDL (the Release of Insects carrying Dominant Lethal genes) is to reduce the population of the naturally occurring A. aegypti mosquitoes and not affect or alter their genetics.

Q.19) The term ethephon, sometimes seen in news is related to which of the following?

- a) Ripening agent
- b) Herbicide
- c) Vaccine
- d) None

#### ANS: A

**Explanation:** The Food Safety and Standards Authority of India (FSSAI) seized one tonne of artificially ripened bananas and plantains from a market in Tiruppur (Tamil Nadu). According to FSSAI officials, a trader had used **ripening agent ethephon (2-chloroethylphosphonic acid)** on the bananas and plantains kept for sale.

**Q.20)** The **Biorock or mineral accretion technology**, sometimes seen in news is related to which of the following?

- a) Mangrove protection
- b) Coral reefs restoration
- c) Carbon storage
- d) Shale gas extraction

#### ANS: B

**Explanation:** The Zoological Survey of India (ZSI), with help from Gujarat's forest department, is attempting for the first time a **process to restore coral reefs using biorock or mineral accretion technology**.

- A biorock structure was installed one nautical mile off the Mithapur coast in the Gulf of Kachchh.
- Biorock is the name given to the substance formed by electro accumulation of minerals dissolved in seawater on steel structures that are lowered onto the sea bed and are connected to a power source, in this case solar panels that float on the surface.
- The technology works by passing a small amount of electrical current through electrodes in the water.

- When a positively charged anode and negatively charged cathode are placed on the sea floor, with an electric current flowing between them, calcium ions combine with carbonate ions and adhere to the structure (cathode).
- This results in calcium carbonate formation. Coral larvae adhere to the CaCO3 and grow quickly.

# Q.21) Consider the following statements regarding the Polar Satellite Launch Vehicle (PSLV):

- 1. It emerged as the reliable and versatile workhorse launch vehicle of India.
- 2. It has failed only once in her total launch missions till December 2019. 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:** Polar Satellite Launch Vehicle (PSLV) is the third generation launch vehicle of India.

- It is the first Indian launch vehicle to be equipped with liquid stages.
- After its first successful launch in October 1994, PSLV emerged as the reliable and versatile workhorse launch vehicle of India with 39 consecutively successful missions by June 2017.
- During 1994-2017 period, the vehicle has launched 48 Indian satellites and 209 satellites for customers from abroad.
- Besides, the vehicle successfully launched two spacecraft Chandrayaan-1 in 2008 and Mars Orbiter Spacecraft in 2013 - that later traveled to Moon and Mars respectively.

It has failed **twice** in her missions.

- PSLV-D1 was launched from Satish Dhawan Space Centre SHAR, Sriharikota on Sep 20, 1993. IRS-1E Satellite could not be placed in orbit. It is her maiden mission.
- The Polar Satellite Launch Vehicle, in its forty-first flight (PSLV-C39), was suppose to launch IRNSS-1H, the eighth satellite of the Indian Regional Navigation Satellite System (IRNSS) into a Sub-Geosynchronous Transfer Orbit (Sub-GTO).
- Launch of PSLV-C39/IRNSS-1H, Scheduled on Aug 31, 2017 from Satish Dhawan Space Centre, SHAR, Sriharikota was unsuccessful.

## Q.22) Consider the following statements regarding the Small Satellite Launch Vehicle:

- 1. It has the capability to deliver payload 500kg at a height of 500km.
- 2. It has all solid motor stages only.
- 3. It can accommodate multiple satellites like GSLV and PSLV.

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: D

**Explanation:** ISRO's Vikram Sarabhai Space Centre (VSSC) at Thumba has completed the design for the Small Satellite Launch Vehicle (SSLV), the **'baby rocket'** billed as the quickest way to space for small-size satellites.

- On the launchpad, the SSLV will stand 34 metres tall, 10 metres shorter than the Polar Satellite Launch Vehicle (PSLV) and around 15 metres shorter than the Mk-II version of the Geosynchronous Satellite Launch vehicle (GSLV).
- It is also a 'thinner' launch vehicle, possessing a diameter of just two metres.
- With a lift-off mass of 120 tonnes, the SSLV can place a 500 kg payload at a height of 500 km in the Low Earth Orbit (LEO).
- The SSLV has three solid motor stages, and like the PSLV and GSLV, can accommodate multiple satellites, albeit smaller ones.
- Unlike the PSLV and GSLV, the SSLV can be assembled both vertically and horizontally.

Q.23) The Human Space Flight Centre (HSFC), the hub of ISRO's future manned missions, is located at?

- a) Sriharikota
- b) Bengaluru
- c) Mahendragiri
- d) Thumba

## ANS: B

Explanation: The Human Space Flight Centre (HSFC), the hub of ISRO's future manned missions, was inaugurated at ISRO headquarters in Bengaluru.

- HSFC shall be responsible for the implementation of Gaganyaan project which involves mission planning, development of engineering systems for crew survival in space, crew selection and training and also pursue activities for sustained human space flight missions.
- HSFC will take the support of ISRO centres to implement the first developmental [crewed] flight.

Q.24) The "ICON Satellite", sometimes seen in news is related to which of the following?

- a) Rain forecasting
- b) Probing Earth's upper atmosphere
- c) To study Jupiter satellite
- d) To study Earth's core

## ANS: B

**Explanation:** NASA has recently launched Ionospheric Connection Explorer (ICON) spacecraft from Cape Canaveral Air Force Station.

- It is designed to probe Earth's upper atmosphere (Ionosphere), a massive layer that overlaps with the boundary of space.
- Its measurements will help scientists better understand the link between space weather and terrestrial weather, and how the two interact in the ionosphere.
- It is the region where strange and unique phenomena, such as the auroras and geomagnetic storms are created.

Q.25) The "Dhanush Regiment" is recently in news is related to which of the following?

- a) Artillery Guns
- b) Unmanned Aerial Vehicles
- c) Stealth Frigates
- d) Light Weight Helicopters

#### ANS: A

**Explanation:** The Indian Army, which began inducting the indigenously upgraded Dhanush artillery guns, will have the first regiment in place by March 2020 and will get all 114 guns by 2022.

- Dhanush is the indigenously upgraded variant of the Swedish Bofors gun imported in the 1980s.
- Dhanush is a 155 mm, 45-calibre towed artillery gun with a range of 36km and has demonstrated a range of 38 km with specialised ammunition.
- It is an upgrade of the existing 155m, 39 calibre Bofors FH 77 gun.

Q.26) The term "Losharik", sometimes seen in news is related to which of the following?

- a) Offshore Oil-field
- b) Nuclear powered submarine
- c) Research Vessel
- d) Supersonic Aircraft

#### ANS: B

**Explanation:** Losharik is a highly advanced nuclear powered submarine of Russia.

- Recently a fire accident was reported on the submarine within the Russian territorial waters.
- It is a deep-diving special mission's ship, operated by the Russian Navy.
- It is capable of withstanding high pressures at great depths, enabling it to survey the ocean floor.

Q.27) The terms "Rani Rashmoni, Rani Abbakka, Rani Avanti Bai, Rani Durgavati and Rani Gaidinliu" often seen in news is related to which of the following?

- a) Deep sea research vessels
- b) Patrolling vessels
- c) Corvettes
- d) Diesel submarines

#### ANS: B

**Explanation:** Rani Rashmoni is a fast patrol vessel, indigenously built by Hindustan Shipyard.

- It is built under the Fast Patrol Vessel (FPV) project of Indian Coast Guard.
- Under the first phase of the project, 5 FPV's has been built.
- The first four such ships are ICGS Rani Abbakka, ICGS Rani Avanti Bai, ICGS Rani Durgavati and ICGS Rani Gaidinliu.

**Q.28)** The **SCOJtEx-2019** is a four-day long exercise, sometimes seen in news is related to which of the following?

- a) Army exercise
- b) High Altitude military exercise
- c) Naval exercise
- d) Urban Earthquake Search and Rescue exercise

#### ANS: D

**Explanation:** India had always been the first respondent in situations of Humanitarian Assistance and Disaster Management (HADR) in the subcontinent said by Indian Home Minister.

- Addressing the 10th meeting of the Heads of Departments of SCO member-States, he called on the Shanghai Cooperation organisation (SCO) members to make a concerted, synchronised effort towards securing people from disasters.
- Minister expressed the confidence that the four-day Joint Exercise on Urban Earthquake Search and Rescue (SCOJtEx)-2019, held in November 2019, and the ministerial meeting would help in finalizing an action plan for managing disasters for the year 2020-21.

**Q.29)** Consider the following statements regarding the microdot technology:

- 1. It involves spraying of thousands of nano dots carrying registration information on vehicles.
- 2. The microdots are adhesive and they become permanent fixtures which cannot be removed without damaging the asset.

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:** The microbot technology involves spraying of thousands of nano dots carrying registration information on vehicles.

- These nano-size metal particles carry information like the registration number and chassis number of the vehicle.
- The dots are sprayed at many different spots on the vehicle, so that even if the vehicle is stolen and sold for parts, it can be traced.
- The microdots are adhesive and will become permanent fixtures/affixation which cannot be removed without damaging the asset, which is the vehicle itself.

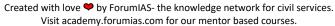
Q.30) The Elastocaloric effect is recently seen in news is related to which of the following?

- a) Cooling
- b) Aero-dynamics
- c) Nuclear power
- d) Wind energy

#### ANS: A

Explanation: When rubbers bands are twisted and untwisted, it produces a cooling effect. This is called the "elastocaloric" effect, and researchers have suggested that it can be used in a very relevant context today.

- Researchers from multiple universities, including Nankai University in China, have found that the elastocaloric effect, if harnessed, may be able to do away with the need of fluid refrigerants used in fridges and air-conditioners.
- These fluids are susceptible to leakages, and can contribute to global warming. In the elastocaloric effect, the transfer of heat works much the same way as when fluid refrigerants are compressed and expanded.
- When a rubber band is stretched, it absorbs heat from its environment, and when it is released, it gradually cools down.
- In order to figure out how the twisting mechanism might be able to enable a fridge, the researchers compared the cooling power of rubber fibres, nylon and polyethylene fishing lines and nickel-titanium wires.
- They observed high cooling from twist changes in twisted, coiled and super-coiled fibres.



**Q.31)** Consider the following statements regarding the **isarithmic maps/lines**:

- 1. It is a type of thematic map that represents a continuous field using line and/or region symbols to connect places of similar value.
- 2. Contour maps, Isotherm maps and Isobar maps are the examples of isarithm maps. 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:** An Isarithmic map is a type of thematic map that represents a continuous field using line and/or region symbols to connect places of similar value.

- It is sometimes called a heat map, although the term heat map should only be used for one type of isarithmic map that represents density.
- In general, these maps are used to help visualize continuous data sets by utilizing color, especially hue and value.
- There are a number of ways to symbolize isarithmic maps; no matter the design method, the phenomenon being represented must be a quantitative continuous field.
- Contour maps, Isotherm maps and Isobar maps are the examples of isarithm maps.

Q.32) Which of the following port city is nearest to tropic of cancer in India?

- a) Kandla
- b) Bharuch
- c) Bhavnagar
- d) Porbander

ANS: A Explanation: Kandla port city is the nearest to tropic of cancer in India.



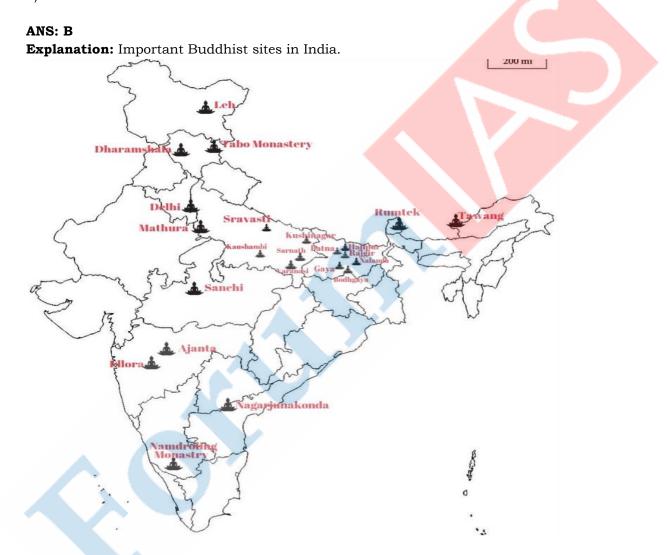


Q.33) Arrange the following Buddhist sites/monasteries from south to North direction:

- 1. Ajanta
- 2. Sanchi
- 3. Namdroling monastry
- 4. Tabo monastery

Select the correct answer using the code given below:

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



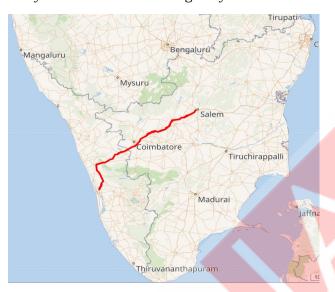
Q.34) Recently National Highway (NH) 544, often seen in news is connecting/drives through which of the following states?

- a) Andhra Pradesh & Telangana
- b) Kerala & Karnataka
- c) Tamil Nadu & Andhra Pradesh
- d) Kerala & Tamil Nadu

#### ANS: D

Explanation: National Highway 544, commonly referred to as NH 544, is a 340-kilometre-long National Highway in South India connecting Salem city in Tamil Nadu to the city of Kochi in Kerala. It is also called the Salem-Kochi Highway.

The Central Vigilance Commission has asked the Chief Vigilance Officer of the National Highway Authority of India to look into the complaint filed by Thrissur DCC general secretary Shaji J. Kodankandath about delay and corruption in the construction of Mannuthy-Wadakkanchery stretch of National Highway 544.



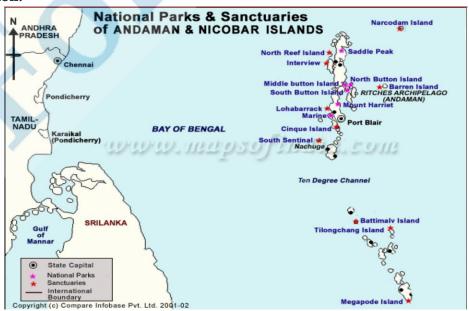
**Q.35)** Arrange the following **national parks** of Andaman & Nicobar Islands from north to south direction:

- 1. Saddle Peak
- 2. Mount Harriett
- 3. North Button
- 4. Mahatma Gandhi Marine

Select the correct answer using the code given below:

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

ANS: D Explanation:





**Q.36)** Recently **pothamala hills** are in news for sighting of new menhirs (possible existence of a major prehistoric necropolis) is located in which of the following state?

- a) Telangana
- b) Odisha
- c) Karnataka
- d) Kerala

#### ANS: D

Explanation: The sighting of new menhirs, perhaps the largest-ever recorded in Kerala, on the Pothamala hills in Udumbanchola taluk on the Kerala-Tamil Nadu border, has thrown light on the possible existence of a major prehistoric necropolis there.

- The menhirs were identified by a team of historians led by Rajeev Puliyoor, assistant professor at the Government Teachers' Training College, Elanthoor.
- The menhirs were planted in a specific geometrical pattern on a cluster of hills, Mr Puliyoor said.
- He said the exquisite natural settings of the hills and dales at Pothamala made the yetto-be explored megalithic site different from similar sites spotted in other parts of the State
- Most of these structures were oriented in the east-west direction.
- The megalithic stone sentinels at Pothamala might hold the key to hitherto unexplored facets of a civilisation that dated back around 3,000 years, said Mr. Puliyoor.

Q.37) Which of the following countries of Europe is/are landlocked?

- 1. Serbia
- 2. Poland
- 3. Croatia

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:** A landlocked country is a country which has no connection to a sea or ocean.

- There are 17 landlocked countries in Europe: Andorra, Armenia, Austria, Belarus, Kosovo, Czech Republic, Hungary, Liechtenstein, Luxembourg, Macedonia, Moldova, San Marino, Serbia, Slovakia, Switzerland and Vatican City.
- Liechtenstein is unique in Europe because it is doubly-landlocked meaning it is both landlocked and surrounded by countries which are also landlocked, a situation it only shares with Uzbekistan which is the second country in the world surrounded only by landlocked countries (Turkmenistan, Kazakhstan, Kirgizstan, Tajikistan and Afghanistan).

**Q.38)** Arrange the following **capital cities** of West Asia from west to east direction:

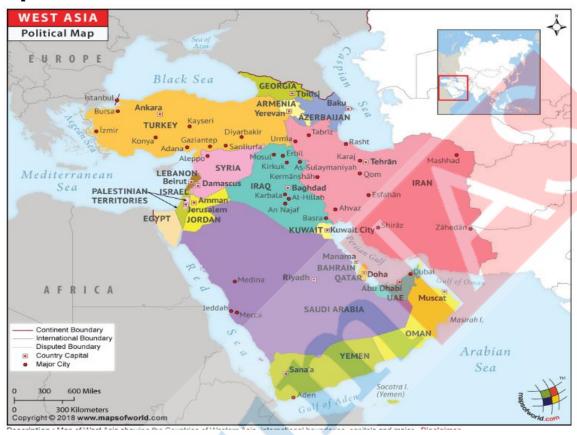
- 1. Ankara
- 2. Damascus
- 3. Tbilisi
- 4. Muscat

Select the correct answer using the code given below:

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

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

# ANS: A Explanation:



**Q.39)** Arrange the following **coal basins** of India from east to west direction:

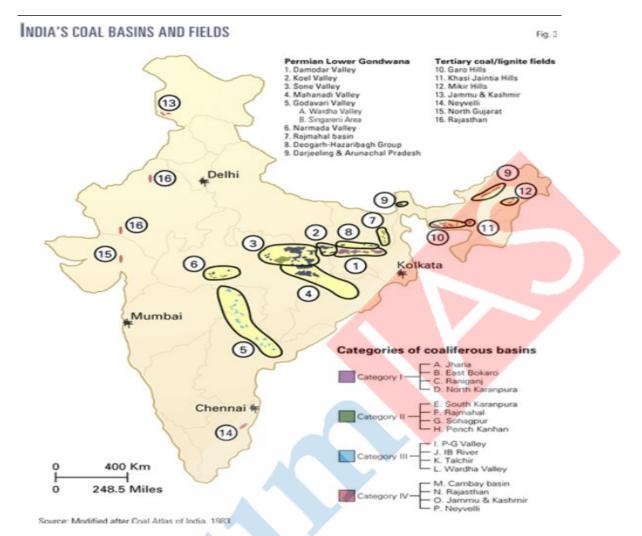
- 1. Koel Valley basin
- 2. Rajmahal basin
- 3. Deogarh Hazaribagh basin
- 4. Sone Valley basin

Select the correct answer using the code given below:

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

ANS: B

Explanation:



Q.40) The Shatrunjaya hills are located in which of the following state?

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

## ANS: C

**Explanation:** Shatrunjaya hills are considered as an ancient tirtha or pilgrimage especially by the Jain community. It is also known as Jain's sacred hills.

- The name of the hill basically means "place of victory". This beautiful range of mountains stands tall scaling height up to 164 feet above sea level.
- They are located in the city of Palitana in Bhavnagar district, Gujarat, India.
- Shetrunji River flows along the side of the hills.
- As Mecca is to Muslims and Jews' to Jerusalem, Shatrunjaya is for Jain community of India.
- Every year cents of people scale this mountain to secure a place in heaven. Jainism comprises a small ratio of the Indian population with just about 4 million individuals.
- It is believed that the hills were first sanctified when the first Tirthankara namely Rishaba gave the sermon on the top of the hills.
- Shatrunjaya hills have almost 865 temples on the top.

**Q.41)** The "Founder effect" is related to which of the following?

- a) Genetic drift
- b) Periodic table
- c) Geographical discoveries
- d) Chemical bonding

#### ANS: A

Explanation: Genetic drift can have major effects when a population is sharply reduced in size by a natural disaster (bottleneck effect) or when a small group splits off from the main population to found a colony (founder effect).

- The founder effect is another extreme example of drift, one that occurs when a small group of individuals breaks off from a larger population to establish a colony.
- The new colony is isolated from the original population, and the founding individuals may not represent the full genetic diversity of the original population.
- That is, alleles in the founding population may be present at different frequencies than in the original population, and some alleles may be missing altogether.
- The founder effect is similar in concept to the bottleneck effect, but it occurs via a different mechanism (colonization rather than catastrophe).
- Genetic studies done on the people of the Lakshwadeep archipelago by a team, led by K. Thangaraj at CSIR-Centre for Cellular and Molecular Biology (CCMB), for the first time have shown that a majority of human ancestry in Lakshadweep is largely derived from South Asia with minor influences from East and West Eurasia.
- And, there was no evidence of early human migration through the Lakshadweep islands.
- "We found a strong **founder effect** for both paternal and maternal lineages a sign that the island population had limited genetic mixing", said by scientists.

Q.42) Which of the following statements regarding the periodic table is/are correct?

- 1. It was first designed by Dmitri Ivanovich Mendeleev.
- 2. United Nations announced 2019 as the International Year of the Periodic Table. 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 United Nations announced 2019 as the International Year of the Periodic Table of the Chemical Elements to highlight its first publication in 1869.

- The periodic table as we know it today was first designed by the Russian scientist Dmitri Ivanovich Mendeleev.
- This year marks the 150th anniversary of the first publication of the periodic table by Mendeleev.
- Since its creation, the periodic table has been at the centre of a lot of vivid debates and is now considered as "one of the most important and influential achievements in modern science reflecting the essence not only of chemistry, but also of physics, biology and other disciplines."
- Mendeleev's genius lies in the acknowledgement that at the time, not all the elements were known yet, so he left gaps in the table for undiscovered elements.

• At that time, only 63 elements had been identified. Still the properties of five other elements (the gaps brilliantly added to complete the table) could already been determined using the table.

**Q.43) Bats serve as natural hosts** for numerous viruses including Ebola virus, Nipah virus and corona viruses, but they rarely effected by these viruses. What would be the appropriate reason?

- a) Bats can avoid excessive virus-induced inflammation.
- b) Bats are mostly nocturnal.
- c) These viruses use bats as host and don't affect the bats.
- d) Due to no impaired production of mRNA (transcript) in bats.

#### ANS: A

**Explanation:** Bats serves as natural hosts for numerous viruses including Ebola virus, Nipah virus, corona viruses such as severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) and the 2019 novel corona virus that has infected nearly 10,000 people and killed over 200 others.

- Even as these viruses cause harm in humans, they rarely if at all cause any harmful effects in bats. This is the case even when the viral load is extremely high in bats.
- The reason why bats can harbour these viruses without getting affected is simply because bats can avoid excessive virus-induced inflammation, which often causes severe diseases in animals and people infected with viruses.
- The researchers found that significantly reduced inflammation in bats was because activation of an important protein NLRP3 that recognises both cellular stress and viral/bacterial infections was significantly dampened in bat immune cells.
- Studying further, the researchers found that reduced activation of the NLRP3 protein was in turn due to impaired production of mRNA (transcript).
- Since mRNA production is impaired the NLRP3 protein production gets compromised leading to less amount of the protein being produced.
- But this was not the case with mice and humans there was no impairment to mRNA production so the NLRP3 protein was unaffected.

**Q.44)** The **maximum residue limit (MRL)** is sometimes seen in news is related to which of the following?

- a) Pesticides level
- b) Pollution level
- c) Water toxicity
- d) Crude exploration

#### ANS: A

**Explanation:** The traces pesticides leave in treated products or those left by veterinary drugs in animals are called "residues".

- The traces pesticides leave in treated products or those left by veterinary drugs in animals are called "residues".
- A study of fruits and vegetables grown in the Nilgiris has found that some of the produce might be harbouring high levels of pesticide, beyond what is considered advisable. This was mainly true of potato and carrot.
- While the Food Safety and Standards Authority of India (FSSAI) prescribes a maximum residual level (MRL) for some of the organophosphate pesticides used, it does not prescribe it for some other pesticides used in the cultivation of fruit and vegetables.

**Q.45)** The "Ophichthus kailashchandrai", sometimes seen in news is related to which of the following?

- a) Banana variety
- b) Frog species
- c) Snake eel species
- d) Butterfly species

#### ANS: C

Explanation: A new snake eel species residing in the Bay of Bengal has been discovered and documented this month (January) by the Estuarine Biology Regional Centre (EBRC) of the Zoological Survey of India (ZSI) at Gopalpur-on-sea in Odisha.

- This new marine species has been named Ophichthus kailashchandrai to honour the vast contributions of Dr. Kailash Chandra, Director of ZSI, to Indian animal taxonomy.
- Ophichthus kailashchandrai is the eighth species of the Ophichthus genus found on the Indian coast. It is the fifth new species discovered by the Gopalpur ZSI in the last two years.
- The eel family 'Ophichthidae' comprises two sub-families Myrophinae (69 species) and Ophichthinae (276 species).
- The sub-family Ophichthinae is identified by its hard tail and other osteological (bone) features, and it has 17 genera and 24 species.
- Out of them, seven species from the Ophichthus genus were earlier identified in Indian waters. The recent discovery is the eighth species of this genus.
- The Ophichthus kailashchandrai lives at a depth of around 50 metres in the sea. According to the studied specimens, individuals of this species are around 420 mm to 462 mm in length.
- They are light brown in colour, with white fins. They have a well-developed pectoral fin and also have a dorsal fin.
- Their posterior nostril is a hole covered by a flap on the upper lip opening towards the mouth.
- There are 180-182 total vertebrae in this new species. Their teeth are moderately elongated, conical and sharp.

# Q.46) Recently, which of the following institute Successfully/efficiently removes heavy metals simultaneously from water?

- a) Indian Institute of Technology Bombay
- b) Indian Institute of Technology Madras
- c) Indian Institute of Technology Kharagpur
- d) Indian Institute of Technology Roorkee

#### ANS: A

**Explanation:** Simultaneously removing heavy metals such as arsenic, chromium, cadmium and mercury from waste water with very high efficiency now appears possible, thanks to the work of researchers at the Indian Institute of Technology (IIT) Bombay.

- The carbon-based nanostructure that the team fabricated shows 80-90% adsorption efficiency for all the four heavy metals studied.
- No electricity is required for the nanostructure to remove heavy metals from water as it allows for gravity-driven purification of the water.
- The nanostructures can be recycled and reused multiple times.
- While there is an initial drop of about 8% after the first cycle, the efficiency remains constant at 75-85% in the subsequent cycles.

• The carbon nanostructure is able to adsorb the heavy metals in the wide range of pH conditions — pH 2 to 13.

Q.47) "Truenat" is often seen in news is related to which of the following?

- a) CoVID 19 testing kit
- b) Tuberculosis (TB) testing kit
- c) Malaria testing kit
- d) Japan encephalitis testing kit

#### ANS: B

Explanation: In a Rapid Communication published on January 14 – 2020, the World Health Organization (WHO) had mentioned that the India-made Truenat MTB, a molecular diagnostic test to diagnose pulmonary and extrapulmonary TB and rifampicin-resistant TB, has high diagnostic accuracy.

- Truenat MTB has "high diagnostic accuracy as initial test to diagnose TB and to sequentially detect rifampicin resistance", says the WHO Communication.
- Truenat MTB will be used as an initial test to diagnose TB thus replacing sputum smear microscopy.
- Truenat is developed by the Goa-based Molbio Diagnostics.
- The company was provided with technical assistance and resources by the Foundation for Innovative New Diagnostics (FIND) to help commercialize Truenat. Indian Council of Medical Research (ICMR) had assessed and validated the diagnostic tool.

Q.48) The Earth's oldest known mineral is found in which of the following Continent?

- a) Antarctica
- b) North America
- c) Africa
- d) Australia

## ANS: D

**Explanation:** A meteorite that crashed into rural southeastern Australia in a fireball in 1969 contained the oldest material ever found on Earth, stardust that predated the formation of our solar system by billions of years, scientists said on January 13 – 2020.

- The oldest of 40 tiny dust grains trapped inside the meteorite fragments retrieved around the town of Murchison in Victoria state dated from about 7 billion years ago, about 2.5 billion years before the sun, Earth and rest of our solar system formed, the researchers said.
- Scientists previously had found a pre-solar grain in the Murchison meteorite that was about 5.5 billion years old, until now the oldest-known solid material on Earth.
- The oldest-known minerals that formed on Earth are found in rock from Australia's Jack Hills that formed 4.4 billion years ago, 100 million years after the planet formed.

**Q.49)** According to the World Health Organization (WHO), which of the following disease (s) is/are considered as **Neglected Tropical Disease (NTD)**?

- 1. Chagas disease
- 2. Dengue fever
- 3. Rabies

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:** Neglected tropical diseases (NTDs) – a diverse group of communicable diseases that prevail in tropical and subtropical conditions in 149 countries – affect more than one billion people and cost developing economies billions of dollars every year.

Populations living in poverty, without adequate sanitation and in close contact with infectious vectors and domestic animals and livestock are those worst affected.

As of 2017, the World Health Organization categorizes the following communicable diseases as neglected tropical diseases (NTDs):

- Buruli Ulcer
- Chagas Disease
- Chromoblastomycosisexternal icon
- Cysticercosis
- Dengue Fever
- Dracunculiasis (Guinea Worm Disease)
- Echinococcosis
- Fascioliasis
- Human African Trypanosomiasis (African Sleeping Sickness)
- Leishmaniasis
- Leprosy (Hansen's Disease)
- Lymphatic Filariasis
- Mycetoma
- Onchocerciasis
- Rabies
- Schistosomiasis
- Soil-transmitted Helminths (STH) (Ascaris, Hookworm, and Whipworm)
- Trachoma
- Yawsexternal icon

**Q.50)** Recently which of the following Indian Institute of Technology (IIT) designed a **new sodium sulphur battery** which can be operated at room temprature?

- a) IIT Bombay
- b) IIT Hyderabad
- c) IIT Madras
- d) IIT Kanpur

#### ANS: C

Explanation: While conventional sodium sulphur batteries require very high temperature (300 degree C) for operation, researchers at the Indian Institute of technology (IIT) Madras have designed a new sodium sulphur battery that can be operated at room temperature.

By operating the battery at room temperature, the team was able to achieve higher charge storage capacity (technically called the specific capacity) and nearly zero self-discharge when the battery is not being used.

**Q.51)** The "FODMAP compounds" is sometimes seen in news is related to which of the following?

a) Carbohydrate molecules

- b) Fruit ripening agents
- c) Pesticide agents
- d) RNA protein compounds

#### ANS: A

**Explanation:** Many plant-based products, especially legumes such as chickpeas, beans, soybeans, contain FODMAP compounds that are poorly digestible and cause unpleasant intestinal symptoms, but now researchers have succeeded in breaking down FODMAPs with enzymes and producing new, stomach-friendly plant-based food products.

- FODMAPs are short-chain carbohydrate molecules that are poorly absorbed in the human small intestine.
- These non-absorbed compounds move along to the large intestine, where intestinal microbes feed on them.
- This results in the production of gases that causes symptoms especially for those suffering from intestinal disorders.
- The research team focused on two key FODMAP compounds; galactan and fructan.
- Galactan is abundant in, for example, legumes, while fructan is found in many cereals, among other things.

## Q.52) Consider the following statements regarding the "LUKOSKIN":

- 1. It is a traditional drug for treating vitiligo or leucoderma.
- 2. It is developed by Defense Research and Development Organization (DRDO). 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: A traditional drug developed by the Defence Research and Development Organisation (DRDO) for treating vitiligo or leucoderma is now available for commercial sale in India.

- The herbal drug, called Lukoskin, was developed by scientists of the Defence Bio-Energy Research (DIBER) centre at Haldwani in Uttarakhand.
- Developer conferred 'Science Award' for 'Lukoskin' that treats the skin condition.
- · Ahead of the International Vitiligo Day, an herbal drug developed by the Defence Research and Development Organisation (DRDO) offers a new hope to those suffering from leucoderma, a condition in which white patches develop on the skin.

## Q.53) The "Project 15B" often seen in news is related to which of the following?

- a) Submarines
- b) Stealth guided missile destroyers
- c) Man portable anti-tank guided missiles
- d) Unmanned aerial vehicles

## ANS: B

#### Explanation: Project 15B is a class of stealth guided missile destroyers.

- Warships built under Project 15Bravo, with a length of 163 metres and 17.4 metres at the beam and a displacement of 7.300 tonnes, are propelled by four gas turbines to achieve speeds in excess of 30 knots.
- Ships under this project can carry and operate two multiple role helicopters.

• Enhanced stealth features have been achieved through the shaping of hull and use of radar transparent deck fittings which make these ships difficult to detect.

## Q.54) Consider the following statements regarding the NIRBHAY Missile:

- 1. It is a supersonic cruise missile.
- 2. It has a range of 700 km to 1,000 km.

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: NIRBHAY, the long-range, sub-sonic, cruise missile was successfully tested today with a sharper 'terrain hugging capability'.

- The NIRBHAY missile has a range of 700 km to 1,000 km.
- After its launch in typical missile style, it can be controlled in aircraft mode.
- Travelling at sub-sonic speeds of different Mach (speed of sound), the hit capacity is enhanced by control and by homing in on targets at different altitudes.

**Q.55)** Recently which **institute** used defected silica as a catalyst to produce methane from carbon dioxide?

- a) Indian Institute of technology Madras
- b) Indian Institute of technology Bombay
- c) Tata Institute of Fundamental Research (TIFR)
- d) Indian Institute of Science

## ANS: C

**Explanation:** Converting the global-warming compound carbon dioxide into a useful fuel has been engaging the attention of scientists for some time.

- Scientists at the Tata Institute of Fundamental Research (TIFR) have discovered an easier and cheaper way of converting CO2 into methane. Scientists have generally used metal nanoparticles as catalysts for this process.
- But TIFR employed 'defected silica' silicon dioxide with a few oxygen atoms knocked off instead of the costlier metal nanoparticles.
- 'Defected silca' has 'holes', where the oxygen atoms used to be. These holes get filled by hydrogen atoms to form silicon hydride. For this, hydrogen molecules, that exist in nature in pairs (hence H2) are ripped apart.
- Each hydrogen atom, then, is desperate to join hands with something; alongside, defected silica is agonising for something to fill the gap where earlier oxygen atoms used to be.
- A happy marriage results. But this marriage is short-lived because carbon dioxide dives in to break the marriage.
- The carbon in CO2 and the hydrogen in silicon hydride desert their spouses and join hands to become methane.
- The leftovers, silicon and oxygen, re-marry to form silicon dioxide the original catalyst.

## **Q.56)** Consider the following statements regarding the **GISAT-1**:

- 1. It is India's first earth imaging satellite in a geostationary orbit.
- 2. It is going to be launched by PSLV XL.

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: GISAT-1 or Geo Imaging Satellite-1 is India's first earth imaging satellite in a geostationary orbit.

- A satellite in geostationary orbit (about 36,000 km above earth) has an orbital period equal to earth's rotational period.
- Geosynchronous Satellite Launch Vehicle (GSLV-F10) will launch GISAT-1. This will be the fourteenth flight of the GSLV.
- After the launch, GISAT-1 will reach the final geostationary orbit of around 36,000 km using its onboard propulsion system.
- The earth observing satellite that weighs around 2,275 kg has a lifespan of 7 years. It carries a multi- and hyper-spectral imager along with the 700 mm Ritchey-Chretien telescope for earth observation and data collection. Also it has a high resolution camera.

## Objectives of GISAT-1

- Facilitates near real time observation of the Indian sub-continent, under cloud free condition, at frequent intervals.
- Helps quick monitoring of natural disasters.
- Keep a constant watch on borders.
- Monitor any changes in the geographical condition of the country.
- Helps to obtain spectral signatures of agriculture, forestry, mineralogy, disaster warning, cloud properties, snow, glaciers and oceanography.

## Q.57) The term "Juice Jacking" often seen in news is related to which of the following?

- a) Cyber attacks
- b) Fibre extracting method
- c) Automobile lubricant
- d) Crude oil extraction

## ANS: A

**Explanation:** Mobile phones can get infected through a type of cyber-attack called Juice Jacking. A USB port is not simply a power socket, you can also use it to transfer and sync your data.

- A hacker can tamper with a USB charging port at a public charging station to steal passwords and export data.
- The main way to avoid juice jacking is to stay away from public charging stations or portable wall chargers.
- Carry a personal charger or a power bank or use USB condoms which are adaptors that allow the power transfer but don't connect the data transfer pins.
- Switch off your phone or lock your phone and then plug it into the charging port. But this technique only works on few mobile models

**Q.58)** Recently scientists mapped the complete genome of basmati rice variety – "**Dom Sufid**" belongs to which of the following country?

- a) Pakistan
- b) India

- c) Iran
- d) Bangladesh

#### ANS: C

**Explanation:** Scientists have mapped the complete genome of two basmati rice varieties, including one that is drought-tolerant and resistant to bacterial disease.

- The researchers focused on two basmati rice varieties: Basmati 334 from Pakistan, known to be drought tolerant and resistant to rice-killing bacterial blight, and **Dom Sufid from Iran**, aromatic long-grain rice that is one of the most expensive on the market.
- Most genetic material in basmati comes from japonica —a rice group found in East Asia — followed by the rice group aus found in Bangladesh.

**Q.59)** The "Curd Maestro refrigerator", which is the world's first that prepares curd – is developed by which of the following?

- a) Tesla
- b) Samsung
- c) LG electronics
- d) Apple

#### ANS: B

Explanation: Introducing its 2020 refrigerator line-up, Samsung unveiled its Curd Maestro refrigerator, which is the world's first that prepares curd.

- Samsung says Curd Maestro enables curd preparation in five to six hours five hours for soft curd, six hours for thick curd.
- One needs to boil and cool the milk and mix the curd culture manually while Curd Maestro does the most crucial part of the job fermentation.
- It will not only ferment the curd but will store it too.
- According to the company, National Dairy Research Institute (NDRI) has tested and recommended the process of curd making in Samsung's Curd Maestro.
- Samsung says Curd Maestro makes curd with the same consistency each time and eliminates all the hassle of curd-making in different weather conditions.

Q.60) Recently which of the following nuclear power plant is attacked by malware?

- a) Kaiga nuclear power plant
- b) Tarapur nuclear power plant
- c) Kudankulam nuclear power plant
- d) Kalpakkam nuclear power plant

#### ANS: C

**Explanation:** The Nuclear Power Corporation of India Ltd. (NPCIL) confirmed that a malware had indeed infected its system at the Kudankulam Nuclear Power Plant (KKNPP), a day after KKNPP officials had categorically asserted that the systems at the plant could not be accessed by anyone outside the network as they were all isolated.

- The cyberintrusion came to light on Monday after the website VirusTotal uploaded a data dump that seemed to point to a data breach in the KKNPP system.
- The dump pointed to a 'dtrack' malware, which can be used as a remote administrator tool, having infected systems at the KKNPP.

## Geography

Q.1) Which of the following State (s) of India is/are share (s) border with 3 countries?

- 1. Sikkim
- 2. Arunachal Pradesh
- 3. West Bengal

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: D

**Explanation:** India has a land frontier of 15,106.7 km. The total length of the coastline of India is 7,516.6 km. India shares its border with seven countries namely Afghanistan, Pakistan, China, Bhutan, Nepal, Myanmar, Bangladesh, Maldives and Sri Lanka.

Country	Capital	Border Length	Bordering States
Afghanistan	Kabul	106 Km	Ladakh (PoK)
Bangladesh	Dhaka	4096.7 Km	West Bengal, <mark>Meghal</mark> aya, Mizoram, Tripura and Assam
Bhutan	Thimphu	699 Km	West Bengal, Sikkim, Arunachal Pradesh & Assam
China	Beijing	3488 Km	Ladakh, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh
Myanmar	Naypyidaw, Yangon	1643 Km	Arunachal Pradesh, Nagaland, Mizoram and Manipur
Nepal	Kathmandu	1751 Km	Bihar, Uttarakhand, UP, Sikkim and West Bengal
Pakistan	Islamabad	3323 Km	Jammu and Kashmir, Ladakh, Punjab, Rajasthan and Gujarat
Sri Lanka	Colombo (Commercial), Sri Jayawardenepura Kotte (Legislative)	Sea Border	It is separated to India by Gulf of Mannar
Maldives	Male	Sea Border	It lies in the south-west part of India Ocean below the Lakshadweep Island

## Q.2) Which of the following river (s) is/are antecedent origin?

- 1. Alaknanda
- 2. Gandak
- 3. Kosi

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: D

**Explanation:** The drainage pattern was already present before a period of uplift and folding that formed the present structure.

- As the uplift took place, the rivers were able to cut down at approximately the same rate and so maintain their courses.
- This process is called antecedence and the drainage system thus developed is called antecedent drainage.
- Many of the Himalayan Rivers have antecedent origin i.e. these rivers existed even before the Himalayan ranges were uplifted.
- These rivers originate in the Tibetan side beyond the mountain ranges of Himalayas. The **Indus, Satluj, Alaknanda, Gandak, Kosi, Brahmaputra** all has an antecedent origin.
- Since these rivers are antecedent, they run transverse to the mountain ranges cutting deep V-shaped, steep-sided valleys (deep gorges).

Q.3) Which of the following is/are correctly matched?

Pass : Significance

1. Zoji la (Pass) : Connects Srinagar to Leh

2. Banihal Pass : Satluj River flows through this Pass
3. Nathu la (Pass) : Chumbi River flows through this Pass

Select the correct answer using the codes given below:

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

#### ANS: C

**Explanation: Zoji La**: Zoji La is a high mountain pass located in the Kargil district of Ladakh.

- The **pass links Leh and Srinagar** and provides an important link between Union Territories of Ladakh and Kashmir.
- In 2018, the Zojila tunnel project was launched.
- The tunnel is Asia's longest and strategic bi-directional tunnel, which will provide all-weather connectivity between Srinagar, Kargil and Leh.

**Banihal Pass**: It is in Jammu & Kashmir. The National Highway No.1A that links Srinagar to Jammu goes through it.

**NOTE**: Satluj River flows through Shipki La (Pass).

**Nathu La**: It is in Sikkim. It gives way to Tibet from Darjeeling and Chumbi Valley. The **Chumbi River flows through this pass**.

## Q.4) The Gersoppa falls is located in which of the following state?

- a) Karnataka
- b) Tamil Nadu
- c) Andhra Pradesh
- d) Kerala

## ANS: A

**Explanation:** Jog Falls, also called Gersoppa Falls, cataract of the Sharavati River, western Karnataka state, southwestern India. The Jog Falls are located 18 miles (29 km) upstream from Honavar at the river's mouth on the Arabian Sea.

## Q.5) Consider the following statements regarding the **Dharwar Rock System**:

- 1. These are the oldest sedimentary rocks.
- 2. The Aravali mountain range has been made with these rocks.



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:** Dharwar system is later than the Archean system but older than the other systems.

- The Dharwar period of rock formation has been largely fixed from 2500 million years ago to 1800 million years ago.
- Dharwar Rock System is special because it is the first metamorphic sedimentary rocks in India.
- They are named Dharwar system because they were first studied in Dharwar region of Karnataka.
- But they are also found in Aravallis, Tamil Nadu, Chota-nagpur plateau, Meghalaya, Delhi, and the Himalayas region.
- The Dharwar rocks are rich in iron ore, manganese, lead, zinc, gold, silver etc.

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

River : Adjacent Town

1. Yamuna River : Etawah

2. Musi River : Bhadrachalam

3. Kaveri River : Chennai

Select the correct answer using the codes given below:

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

## ANS: A

**Explanation:** Rivers and their adjacent towns.

Tamil Nadu			
CITY	RIVER		
Chennai	Cooum, Adyar		
Coimbatore	Noyyal		
Erode	Kaveri		
Madurai	Vaigai		
Thiruchirapalli	Kaveri		
Tirunelveli	Thamirabarani		

Telangana

CITY	RIVER
Hyderabad	Musi

#### Uttar Pradesh

CITY	RIVER
Agra	Yamuna
Allahabad	Ganges
Auraiya	Yamuna
Ayodhya	Saryu
Chakeri	Ganges
Etawah	Yamuna
Farrukhaband	Ganges
Fatehgarh	Ganges
Gorakhpur	Rapti



**Q.7)** Which of the following Soils is/are **NOT** Zonal Soil?

- 1. Alluvial Soils
- 2. Red Soils
- 3. Black Soils

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: A

**Explanation:** The Soils can be classified on the basis of dominating factors:

Zonal Soil - These soils occur in broad geographical areas or zones.

- They are influenced more by the climate and vegetation of the area rather than the rock-type.
- They are mature, as a result of stable conditions over a long period of time.
- For example red soils, black soils, laterite soils, desert soils etc.

**Azonal Soil** – It is that soil which has been developed by the process of deposition by the agents of erosion.

- It means that it has been made by the fine rocky particles transported from the far-off regions.
- These are immature soils and lack well-developed soil profiles.
- This may be due to the non-availability of sufficient time for them to develop fully or due to the location on very steep slopes which prohibits profile development.
- For Example alluvial and loess soils.

**Intrazonal Soil** – These soils occur within other zonal soils.

- It is a well-developed soil reflecting the influence of some local factor of relief, parent material, or age rather than of climate and vegetation.
- For example, calcareous soil (soils which develop from limestone), peat soil.

Q.8) Which of the following state (s)/place (s) of India is/are come (s) under **Seismic Zone** V?

- 1. Entire North eastern India
- 2. Delhi-NCR region
- 3. Andaman & Nicobar Islands

Select the correct answer using the codes given below:

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

## ANS: B

Explanation: The Bureau of Indian Standards has classified regions in India into four seismic zones on the basis of historical seismic activity.

- These are zones II, III, IV and V. Among these, Zone V is the most seismically active region and zone II is the least active.
- According to Modified Mercalli scale, the seismic zone intensity is/are classified as zone II (low intensity zone), zone III (moderate intensity zone), zone IV (severe intensity zone) and zone V (very severe intensity zone).

According to the Ministry of Earth Sciences:

- Zone V includes entire northeastern India, parts of Jammu and Kashmir and Himachal Pradesh, Uttaranchal, Rann of Kutch in Gujarat, parts of North Bihar and Andaman & Nicobar Islands.
- **Zone-IV** includes the remaining parts of Jammu and Kashmir and Himachal Pradesh. **Delhi-NCR region**, Sikkim, northern parts of Uttar Pradesh, Bihar and West Bengal, parts of Gujarat and small portions of Maharashtra near the west coast and Rajasthan also fall in this zone.
- Regions under zone III are Goa, Kerala, Lakshadweep, and remaining parts of Uttar Pradesh, Gujarat and West Bengal, parts of Punjab, Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Chhattisgarh, Maharashtra, Orissa, Andhra Pradesh, Tamilnadu and Karnataka.
- The remaining portion of the country falls under zone II.

## Q.9) Consider the following statements regarding the **Ground Nut production in India**:

- 1. It is endemic to India.
- 2. India is the largest producer of Ground Nut followed by China and USA 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:** Peanut or groundnut (Arachis hypogaea), is a species in the legume or "bean" family. The peanut was probably first domesticated and cultivated in the valleys of Paraguay.

- It is an annual herbaceous plant growing 30 to 50 cm (1.0 to 1.6 ft) tall. The leaves are opposite, pinnate with four leaflets (two opposite pairs; no terminal leaflet), each leaflet 1 to 7 cm long and 1 to 3 cm broad.
- Peanuts are known by many other local names such as earthnuts, ground nuts, goober peas, monkey nuts, pygmy nuts and pig nuts. Despite its name and appearance, the peanut is not a nut, but rather a legume.
- India is the second largest producer of groundnuts in the world. Indian groundnuts are available in different varieties: Bold or Runner, Java or Spanish and Red Natal.
- They have a rich nutty flavour, sweet taste, crunchy texture and over and above a relatively longer shelf life. Soil conditions in some producing regions are ideally suited for dry, clean and spotless Groundnuts in Shell.
- Groundnut is the major oil seed crop in India and it plays a major role in bridging the vegetable oil deficit in the country. Groundnuts in India are available throughout the year due to a two-crop cycle harvested in March and October. Ground Nuts are important protein crops in India grown mostly under rain-fed conditions.
- Gujarat, Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra, Rajasthan, Madhya Pradesh, Orissa, and Uttar Pradesh major growing states in India.

## Q.10) Consider the following statements regarding the Lead mineral resources in India:

- 1. The main ore of lead is galena and it is found in the sedimentary rocks of limestone and sandstone.
- 2. Rajasthan is the sole producer of lead ore in India.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only

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

#### ANS: C

Explanation: The main ore of lead is galena. It is found in the sedimentary rocks of limestone and sandstone.

- Rajasthan is the richest state in terms of availability and variety of minerals in the country and produces about 57 different minerals.
- Rajasthan is the sole producer of lead & zinc ores, selenite and wollastonite.
- The Zawar area (Udaipur) of Rajasthan is famous for the production of Lead.

**Q.11)** The **Beaufort Gyre** (Sea water current), sometimes seen in news is related to which of the following?

- a) Arctic Ocean
- b) Pacific Ocean
- c) Indian Ocean
- d) None

#### ANS: A

Explanation: According to the scientists, including those from NASA's Jet Propulsion Laboratory in the US, a sea-water current called the Beaufort Gyre keeps the polar environment in balance by storing fresh water near the surface of the Arctic Ocean.

- Wind blows the gyre in a clockwise direction around the western Arctic Ocean, north of Canada, where it naturally collects fresh water from the melting of glaciers, and river runoff.
- The researchers said this fresh water is important in the Arctic since it floats above the warmer, salty water, and helps protect the sea ice from melting in turn regulating the Earth's climate.
- As the fresh water is slowly released by the gyre into the Atlantic Ocean over a period of decades, it allows the Atlantic Ocean currents to carry it away in small amounts.
- However, since the 1990s, the researchers said, the gyre has accumulated a large amount of fresh water 8,000 cubic kilometres or almost twice the volume of Lake Michigan in the US.
- According to the new study, the cause of this gain in freshwater concentration is the loss of sea ice in summer and autumn.
- Due to this decades-long decline of the Arctic's summertime ice cover, the Beaufort Gyre is more exposed to the wind, which has spun the gyre faster, trapping the fresh water in its current.

# Q.12) Consider the following statements regarding the Atlantic Meridional Overturning Circulation (AMOC):

- 1. It is a large system of ocean currents that carry warm water from the tropics northwards into the North Atlantic.
- 2. Its circulation effects the location of droughts and frequency of hurricanes.

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:** The Atlantic Meridional Overturning Circulation (AMOC) is a large system of ocean currents that carry warm water from the tropics northwards into the North Atlantic.

- The AMOC is a large system of ocean currents, like a conveyor belt, driven by differences in temperature and salt content the water's density.
- As warm water flows northwards it cools and some evaporation occurs, which increases the amount of salt.
- Low temperature and a high salt content make the water denser, and this dense water sinks deep into the ocean.
- The cold, dense water slowly spreads southwards, several kilometres below the surface (As that water cools and sinks it drives a slow circulation of the oceans that is critical to global climate, affecting the location of droughts and frequency of hurricanes).
- Eventually, it gets pulled back to the surface and warms in a process called "upwelling" and the circulation is complete.
- This global process makes sure that the world's oceans are continually mixed, and that heat and energy are distributed around the earth. This, in turn, contributes to the climate we experience today.
- As that water cools and sinks it drives a slow circulation of the oceans that is critical to global climate, affecting the location of droughts and frequency of hurricanes.
- It also stores heat-trapping carbon dioxide deep in the ocean.

Q.13) Which of the following Ocean current is called as "Black Stream"?

- a) Gulf Stream Current
- b) Labrador Current
- c) Kuroshio Current
- d) Alaska Current

#### ANS: C

**Explanation:** THE KUROSHIO IS a warm northeasterly ocean current off the coast of Japan. This current is also called the gulf stream of the Pacific or Japan Current.

- **Kuroshio means "the black stream" in Japanese**, named after the deep ultramarine color of the high salinity water, which is found flowing north of the current's axis.
- The system includes the following branches: Kuroshio, up to 35 degrees N; Kuroshio extension, extending eastward into two branches up to 160 degrees E longitude;
- North Pacific current, a further eastward continuation, which throws branches to the south as far as 150 degrees W;
- Tsushima current, branches of the main current that run into the Japan Sea, along the west coast of JAPAN;
- And Kuroshio counter-current, the large swirl or eddy on the east and south east of the Kuroshio.

**Q.14)** The "RV Polarstern", sometimes seen in news is related to which of the following?

- a) Research vessel and Ice breaker
- b) Deep sea mining vessel
- c) Tsunami research vessel
- d) Deep sea submarine

#### ANS: A

**Explanation:** The **German icebreaker RV Polarstern**, a hulking ship will set out for the Arctic packed with supplies and scientific equipment for a year-long mission to explore the planet's frigid far north.

- The icebreaker will be the base for scientists from 17 nations studying the impact of climate change on the Arctic and how it could affect the rest of the world.
- Spearheaded by the Alfred Wegener Institute in Germany, MOSAiC (multidisciplinary drifting observatory for the Study of Arctic Climate expedition), the largest ever Arctic expedition in history, will be the first to conduct a study of this scale at the North Pole for an entire year.

**Q.15)** The "Latosols" are predominantly found in which of the following areas?

- a) Temperate areas
- b) Polar areas
- c) Desert areas
- d) Tropical areas

#### ANS: D

**Explanation:** Latosols are soils found under tropical rainforests which have a relatively high content of iron and aluminum oxides. They are typically classified as oxisols or ferralsols.

# Q.16) Consider the following statements regarding the stages of demographic transition theory:

- 1. In the first stage there has been low fertility and high mortality.
- 2. In the second stage there has been high fertility and reduced mortality.
- 3. In the final stage both fertility and mortality decline considerably.

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: C

**Explanation:** Demographic transition theory can be used to describe and predict the future population of any area.

- The theory tells us that population of any region changes from high births and high deaths to low births and low deaths as society progresses from rural agrarian and illiterate to urban industrial and literate society. These changes occur in stages which are collectively known as the demographic cycle.
- The **first stage has high fertility and high mortality** because people reproduce more to compensate for the deaths due to epidemics and variable food supply.
- Fertility remains high in the beginning of second stage but it declines with time. This is accompanied by reduced mortality rate. Improvements in sanitation and health conditions lead to decline in mortality. Because of this gap the net addition to population is high.
- In the last stage, **both fertility and mortality decline considerably**. The population is either stable or grows slowly. The population becomes urbanized, literate and has high technical knowhow and deliberately controls the family size.

**Q.17)** According to the United Nations Population Fund (UNFPA), which of the following five states account for more than **half of the growth in the labour force** in India?

- 1. Bihar
- 2. West Bengal
- 3. Madhya Pradesh
- 4. Rajasthan
- 5. Uttar Pradesh

Select the correct answer using the codes given below:

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

#### ANS: B

**Explanation:** There is a clear demographic divergence between north-central and south-western regions; one is a young hinterland with vast labour force and the other ones are ageing with decreasing working age population.

- Most of the current and future demographic potential is locked in the north-central States, and largely located in Bihar, Jharkhand, Madhya Pradesh, Rajasthan, and Uttar Pradesh.
- As per population projections by UNFPA, these five States will account for more than half of the growth in the labour force in India.
- Those who are under 15 years of age today will become India's working population in coming decades. Almost every second person in this age group resides in these five States.
- The accompanying figure shows that there is a gap of almost 20 years between the northern hinterland and southern States in terms of the peak of the working age ratios in these regions.

Q.18) Which of the following is/are the approache (s) to study of human development?

- 1. Income approach
- 2. Welfare approach
- 3. Sustainability approach

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:** There are many ways of looking at the problem of human development. Some of the important approaches are: (a) The income approach; (b) The welfare approach; (c) Minimum needs approach; and (d) Capabilities approach.

(a) Income Approach	This is one of the oldest approaches to human development. Human development is seen as being linked to income. The idea is that the level of income reflects the level of freedom an individual enjoys. Higher the level of income, the higher is the level of human development.
(b) Welfare Approach	This approach looks at human beings as beneficiaries or targets of all development activities. The approach argues for higher government expenditure on education, health, social secondary and amenities. People are not participants in development but only passive recipients. The government is responsible for increasing levels of human development by maximising expenditure on welfare.
(c) Basic Needs Approach	This approach was initially proposed by the International Labour Organisation (ILO). Six basic needs i.e.: health, education, food, water supply, sanitation, and housing were identified. The question of human choices is ignored and the emphasis is on the provision of basic needs of defined sections.
(d) Capability Approach	This approach is associated with Prof. Amartya Sen. Building human capabilities in the areas of health, education and access to resources is the key to increasing human development.



## **Q.19)** The **truck farming** is related to which of the following?

- a) Paddy cultivation
- b) Sugar cane cultivation
- c) Vegetable cultivation
- d) Spices cultivation

#### ANS: C

**Explanation:** The regions where farmers specialise in vegetables only, the farming is **known as truck farming**. The distance of truck farms from the market is governed by the distance that a truck can cover overnight, hence the name truck farming.

## Q.20) Which of the following animal (s) is/are examples of pack animal (s)?

- 1. Horses
- 2. Dogs
- 3. Mules

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: D

## Explanation: A pack animal is a type of animal used by humans to carry heavy loads.

These animals carry goods and supplies upon their backs across long distances or difficult terrain.

- They are not to be confused with draft animals, which pull weight on a cart or sled. The use of animals to carry cargo dates as far back as 3500 BC.
- Historical evidence suggests that donkeys have served as pack animals for longer than
  any other species. Other types of common pack animals include camels, yaks, horses,
  llamas, oxen, and water buffalos.
- Horses are used as a draught animal even in the Western countries.
- **Dogs and reindeer are used in North America**, North Europe and Siberia to draw sledges over snow-covered ground.
- **Mules are preferred in the mountainous regions**; while camels are used for caravan movement in deserts. In India, bullocks are used for pulling carts.

## Q.21) Which of the following is/are the characteristics of Igneous Rocks?

- 1. They are hard and compact.
- 2. They are granular and crystalline.
- 3. They are more widespread and constitute about 75% of the surface area of globe.

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:** Igneous Rocks - produced by solidification of molten magma from the mantle. Magma that solidifies at the Earth's surface conceives extrusive or volcanic igneous rocks. When magma cools and solidifies beneath the surface of the earth intrusive or plutonic igneous rocks are formed.

Characteristics of Igneous rocks are:

- Formed by the cooling and solidification of lava.
- Hard in nature.
- **Consists of crystals**, hence also called as crystalline rock.
- Examples are Granite and Basalt. These rocks are formed inside as well as on the earth.
- Fossils are not present in this rock.
- Igneous rocks are of two types: a. Extrusive rocks b. Intrusive rocks
- It is non porous rock.

NOTE: Sedimentary rocks are most widespread on the surface of the earth and constitute about 75% of the surface area of globe.

**Q.22)** Which of the following rocks is/are **NOT** sedimentary rocks?

- 1. Loess
- 2. Conglomerate
- 3. Shale

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:** Sedimentary rocks are formed by the accumulation of sediments. There are three basic types of sedimentary rocks.

- Clastic sedimentary rocks such as breccias, conglomerate, sandstone, siltstone, loess and shale are formed from mechanical weathering debris.
- **Chemical sedimentary rocks**, such as rock salt, iron ore, chert, flint, some dolomites, and some limestone, form when dissolved materials precipitate from solution.
- **Organic sedimentary rocks** such as coal, some dolomites, and some lime stones, form from the accumulation of plant or animal debris.

**Q.23)** The "Nazca tectonic plate" is related to which of the following?

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

## ANS: A

Explanation: The Nazca plate is an oceanic tectonic plate in the southeastern Pacific Ocean that shares both convergent and divergent boundaries, corners multiple triple junctions, contains three seamount chains, overrides four hotspots, and is responsible for the creation of the Andean orogeny.

- Over the last half-century, it has garnered much attention from the scientific and political community due to the hazards it poses to the populated west coast of **South** America.
- With oblique subduction underneath the South American plate, this active convergent margin is the longest subduction zone in the world, stretching 7500 km and produced the largest earthquake ever recorded on earth, the M 9.5 Valdivia earthquake.

**Q.24)** Which of the following **cloud** is also known as rain cloud?

- a) Altocumulus
- b) Cirrostratus
- c) Nimbostratus
- d) Altostratus

#### ANS: C

**Explanation:** The prefix "nimbo-" or the suffix "-nimbus" are low-level clouds that have their bases below 2,000 meters (6,500 feet) above the Earth.

- Clouds that produce rain and snow fall into this category. ("Nimbus" comes from the Latin word for "rain.") Two examples are the nimbostratus or cumulonimbus clouds.
- Nimbostratus clouds bring continuous precipitation that can last for many hours.
   These low-level clouds are full of moisture.
- Cumulonimbus clouds are also called thunderheads. Thunderheads produce rain, thunder, and lightning.
- Many cumulonimbus clouds occur along cold fronts, where cool air is forced under warm air.
- They usually shrink as evening approaches, and moisture in the air evaporates. Cumulonimbus clouds gradually become stratocumulus clouds, which rarely produce rain.

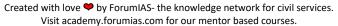
# Q.25) Which of the following are refer as the Roaring Forties, Furious Fifties and Shrieking or Stormy Sixties?

- a) Easterlies
- b) Westerlies
- c) Horse latitudes
- d) Doldrums

## ANS: B

**Explanation:** The Roaring Forties take shape as warm air near the equator rises and moves toward the poles.

- Warm air moving pole-ward (on both sides of the equator) is the result of nature trying to reduce the temperature difference between the equator and at the poles created by uneven heating from the sun.
- This process sets up global circulation cells, which are mainly responsible for global-scale wind patterns.
- The air descends back to Earth's surface at about 30 degrees' latitude north and south of the equator. This is known as the high-pressure subtropical ridge, also known as the horse latitudes.
- Here, as the temperature gradient decreases, air is deflected toward the poles by the Earth's rotation, causing strong westerly and prevailing winds at approximately 40 degrees. These winds are the Roaring Forties.
- The Roaring Forties in the Northern Hemisphere don't pack the same punch that they do in the Southern Hemisphere.
- This is because the large land masses of North America, Europe, and Asia obstructing the airstream, whereas, in the southern hemisphere, there is less land to break the wind in South America, Australia, and New Zealand.
- While the Roaring Forties may be fierce, 10 degrees south are even stronger galeforce winds called the Furious Fifties.
- And 10 degrees south of the Furious Fifties lay the Screaming Sixties! We can thank the intrepid sailors of yore for these wildly descriptive terms.





- **Q.26)** The **major hot deserts** of the world are mainly associated with which of the following?
- a) Doldrums
- b) Horse latitudes
- c) Westrlies
- d) Jet Streams

#### ANS: B

**Explanation:** The **hot deserts lie astride the Horse Latitudes** or the sub-tropical high pressure belts where the air is descending, a condition is least favourable for precipitation of any kind to take place.

- **Q.27)** The tribes "**Bedouins and Bindibu**" are associated with which of the following climatic regions?
- a) Equatorial desert
- b) Mid-latitude desert
- c) Polar regions
- d) Tropical regions

#### ANS: B

**Explanation:** The **mid-latitude desert** is considered an arid climate in which the total annual precipitation is less than half the annual potential evapotranspiration.

- Precipitation is sparse as the interior location is distant from a source of moisture. Or, the lack of rainfall is due to its leeward, rain shadow location.
- Despite the inhospitality, the desert has always been populated by different group
  of inhabitations such as Bedouins of Arab, Bushmen of Kalahari, Bindibu of
  Australia etc.
- **Q.28)** Movement of water caused by meteorological effects like winds and atmospheric pressure changes are known as?
- a) Tides
- b) Gyres
- c) Surges
- d) Current

## ANS: C

**Explanation:** The periodical rise and fall of the sea level, once or twice a day, mainly due to the attraction of the sun and the moon, is called a tide.

Movement of water caused by meteorological effects (winds and atmospheric pressure changes) is called surges. Surges are not regular like tides.

- Q.29) Consider the following statements regarding the earthquake waves:
- 1. P-waves move faster and are the first to arrive at the surface.
- 2. P waves travel through solid only.

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**: Earthquake waves are basically of two types — body waves and surface waves. Body waves are generated due to the release of energy at the focus and move in all directions travelling through the body of the earth. Hence, the name body waves.

- The body waves interact with the surface rocks and generate new set of waves called surface waves. These waves move along the surface.
- The velocity of waves changes as they travel through materials with different densities. The denser the material, the higher is the velocity.
- Their direction also changes as they reflect or refract when coming across materials with different densities.
- There are two types of body waves. They are called P and S-waves. P-waves move faster and are the first to arrive at the surface. These are also called 'primary waves'.
- The P-waves are similar to sound waves. They travel through gaseous, liquid and solid materials.
- S-waves arrive at the surface with some time lag. These are called secondary waves. An important fact about S-waves is that they can travel only through solid materials.

## **Q.30)** Consider the following statements regarding **crust of the earth**:

- 1. The average density of continental crust is less than that of oceanic crust.
- 2. The oceanic crust is thinner than the continental crust.

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: D

**Explanation:** The Crust is the outermost solid part of the earth. It is brittle in nature. The thickness of the crust varies under the oceanic and continental areas.

- Oceanic crust is thinner as compared to the continental crust. The mean thickness of oceanic crust is 5 km whereas that of the continental is around 30 km.
- The continental crust is thicker in the areas of major mountain systems. It is as much as 70 km thick in the Himalayan region.
- The average density of oceanic crust is 3.0 g/cm3, while continental crust has an average of 2.7 g/cm3.

Q.31) Which of the following constitutional provision (s) is/are related to "water"?

- 1. Union list
- 2. State list
- 3. Concurrent list

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:** All the major river basins and some among the medium river basins are of inter-state nature.

As the development of projects by one State on an inter-state river may affect the interests of other basin States, inter-state differences arise with regard to use, distribution and control of waters of inter-state river basins.

- Subject of 'water' is a matter at Entry 17 of List -II, i.e. State List.
- This Entry is subject to the provisions of Entry 56 of List -I, the Union List.
- Entry 56 of Union list: Regulation and development of inter-State rivers and river valleys to the extent to which such regulation and development under the control of the Union are declared by Parliament by law to be expedient in the public interest.
- Entry 17: Water that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power subject to the provisions of Entry 56 of List I.

Q.32) The "Aqueduct's global water risk atlas" is sometimes seen in news is released by which of the following?

- a) World Resources institute
- b) World Economic Forum
- c) World Meteorological organization
- d) Intergovernmental Panel on Climate Change

#### ANS: A

**Explanation:** Aqueduct's global water risk mapping tool helps companies, investors, governments, and other users understand where and how water risks and opportunities are emerging worldwide.

- The Atlas uses a robust, peer reviewed methodology and the best-available data to create high-resolution, customizable global maps of water risk.
- With the support of a diverse group of partners, the **World Resources Institute** built Aqueduct to help companies, investors, governments, and communities better understand where and how water risks are emerging around the world.
- The World Resources Institute is committed to transparency and open data. The data and methodology behind Aqueduct are documented and available for download.

Q.33) The "Feni River" is recently in news is originated in which of the following state?

- a) Gujarat
- b) Goa
- c) Tripura
- d) Mizoram

### ANS: C

Explanation: The Feni River, which forms part of the India-Bangladesh border, originates in the South Tripura district, passes through Sabroom town on the Indian side, and meets the Bay of Bengal after it flows into Bangladesh.

In November 2019 the Union Cabinet approved a Memorandum of Understanding (MoU) between India and Bangladesh on the withdrawal of 1.82 cusecs (cubic feet per second) of water from the Feni River by India for a drinking water supply scheme for Sabroom town in Tripura.

## Q.34) Which of the following is/are west flowing rivers in India?

- 1. Netravati
- 2. Periyar
- 3. Varrar

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 west flowing rivers of southern basin between Tadri to Kanyakumari extends over states of Kerala, Karnataka, Tamil Nadu and Union Territory of Puducherry having an area of 54,825 Sq. km, which is 1.66% of total geographical area of the country.

- The basin is bounded by Sahyadri hills on the north, by the Western Ghats on the east, by Indian Ocean on the south and by the Arabian Sea on the west.
- The basin is comprised of three sub-basins; Netravati and associated sub basin, Periyar and associated sub basin and Varrar and associated sub basin.
- The major independent rivers in the basin are Varahi, Netravati, Payaswani, Valapattanam, Chaliyar, Kadalundi, Bharathapuzha, Periyar, Muvattupula, Minachil, Pamba, Achankovil, Kallada and Vamanapuram.

Q.35) The "Sisseri River Bridge" is recently in news is located in which of the following state?

- a) Himachal Pradesh
- b) Arunachal Pradesh
- c) Uttar Pradesh
- d) Madhya Pradesh

#### ANS: B

**Explanation:** Union Minister Rajnath Singh inaugurated the **Sisseri River Bridge at Lower Dibang Valley in Arunachal Pradesh** and called for bolstering the border infrastructure, saying that national security is the topmost priority of the government.

The 200-metre long bridge between Jonai-Pasighat-Ranaghat-Roing roads will provide connectivity between Dibang Valley and Siang to meet the long-pending demand of the people of Arunachal Pradesh as it would cut down the travel time from Pasighat to Roing by about five hours.

Q.36) Which of the following tribe (s) is/are significantly located in Arunachal Pradesh?

- 1. Adi tribe
- 2. Apatani tribe
- 3. Nyishi tribe

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:** Arunachal Pradesh has the highest concentration of scheduled tribes in India. Additionally, this region is probably one of the last remaining outposts in the country where tribes still live a primitive existence, seeking out a living from the land and maintaining a harmonious relation with nature.

• The word 'Nyishi' literally translates to a 'civilised human being'. The Nyishis are the most populous tribe of Arunachal Pradesh and inhabit the Papum Pare, Kurung Kumey, East Kameng, and the Lower and Upper Subansiri districts of Arunachal Pradesh. They are mainly involved in shifting cultivation and produce rice, millet, cucumber, etc.

- The **Apatanis** have a distinct culture with systematic land use techniques and rich traditional ecological knowledge. Their sustainable development ways, and natural resources' management and conservation, that has been acquired over the centuries through informal experimentation, is simply exemplary.
- UNESCO has proposed that the Apatani valley be listed as a World Heritage Site for its 'extremely high productivity' and 'unique' way of preserving ecology.
- The tribe, mainly found in the Ziro Valley in the Lower Subansiri district, is known for its wetland paddy cultivation, which produces high yields even without the use of farm animals and agricultural machines.
- The **Adi tribe celebrates** a number of festivals but the most important ones are Aran, Solung and Etor. Solung is a harvest festival that is observed in the first week of September for about five days.
- It is marked by songs, dances, display of weaponry, etc. Etor is celebrated in the month of May and men perform various war dances (collectively called Tapu) during the ceremonies. Aran is observed in the month of March.

Statement-1: Population of Major STs, 2001 Census		
SL. No	Name of the ST	Population returned in
		2001 Census
1	All Scheduled Tribes	705,158
2	Abor	19,927
3	Adi	32,582
4	Adi Gallong	48,126
5	Adi Minyong	33,984
6	Adi Padam	11,625
7	Aka	5,140
8	Any Naga Tribes	6,978
9	Apatani	27,576
10	Bangni	7,870
11	Dafla	45,276
12	Deori	5,693
13	Galong	27,239
14	Idu/Chulikata Mishmi	9,350
15	Khampti	12,890
16	Miji	5,721
17	Mishing/Miri	13,591
18	Mishmi	25,161
19	Monpa	41,983
20	Nishang	21,907
21	Nissi	87,656
22	Nocte	33,680
23	Tagin	39,091
24	Tangsa	20,962
25	Tawang Monpa	7,500
26	Wancho	47,788

Q.37) The terms "Dakshin Gangotri, Maitri, Bharati, Himadri and Himansh" sometimes seen in news is related to which of the following?

- a) Polar and high altitude research bases
- b) Deep sea research vessels
- c) Monsoon Expedition vessels
- d) Tropical climate expedition

#### ANS: A

**Explanation:** India began exploring the Antarctic with its first expedition in 1981 and since then has launched 37 expeditions.

- The country's **first Antarctic base 'Dakshin Gangotri'** was established in 1983-84 in the ice shelf of East Antarctica.
- At present, India has two permanent research bases 'Maitri' and 'Bharati'.
- In addition, India has a research station called 'Himadri' in the Arctic and Himansh in the Himalaya.
- These **high latitudes and cold desert regions** are considered ideal for astronomical research as well.



**Q.38)** The "**Sonbhadra gold mines**" is recently in news is located in which of the following state?

- a) Tamil Nadu
- b) Karnataka
- c) Uttarakhand
- d) Uttar Pradesh

#### ANS: D

**Explanation:** Geographical Survey of India (GSI) provided estimates for the amount of gold that can be extracted from a site **in Sonbhadra district of Uttar Pradesh**.

The gold resource is located near a village called Mahuli, around 70 km from Sonbhadra district, the land is mainly forest area and inhabited mostly by tribal and members of backward classes.

Q.39) Which of the following pair (s) is/are correctly matched?

Peakhills/Range1. Anai Mudi: Cardamom Hills2. Doda Beta: Nilgiri Hills3. Guru Shikhar: Aravalis

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: Anamudi is a mountain located in the Indian state of Kerala.

- It is the highest peak in the Western Ghats and South India, at an elevation of 2,695 metres.
- Its parental hills are Anaimalai hills.
- **Doda beta is the highest peak of nilgiri hills** while Guru Shikhar is the highest peak of Aravali Range located in Rajasthan.

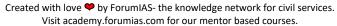
**Q.40)** "Ratooning" is the method used for the production of which of the following crop?

- a) Rice
- b) Wheat
- c) Cotton
- d) Sugar cane

#### ANS: D

**Explanation:** Ratoon cropping is an old system that has been practiced for many years, especially in the Tropics.

- Although the origin of ratooning is probably not known for any particular crop, it may
  have begun when man first noticed the regrowth of new shoots following the cutting
  of certain crops at harvest, thus, producing a new crop without replanting.
- Because rationing is practiced widely and is important in many crops, a review of the practice may be valuable, especially because increased food and fiber production is imperative in tropical areas.
- This practice is widely used in the cultivation of crops such as rice, sugarcane, banana and pineapple.



## Environment

- Q.1) Consider the following statements regarding the Centre for Science and Environment (CSE):
- 1. It is an autonomous body under Ministry of Environment, Forest and Climate Change.
- 2. The India Environment Portal is initiated and managed by the Centre for Science and Environment (CSE).

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: The Centre for Science and Environment (CSE) is an independent, public interest organization (not-for-profit), which uses knowledge for activism.

- The Centre was started in 1980, by India's top environmentalist, Anil Agarwal and continues to work to push, prod and argue for environmental management in the country. It believes it can and must make a difference.
- The India Environment Portal is initiated and managed by the Centre for Science and Environment (CSE) promoted by the National Knowledge Commission (NKC), Government of India.
- **Q.2)** Which of the following **Act mandates to create** Local level Biodiversity Management Committees (BMC's)?
- a) Indian Forests Act, 1927
- b) Environment Protection Act, 1986
- c) Biodiversity Act, 2002
- d) Forest Rights Act, 2006

## ANS: C

**Explanation:** The Bruhat Bengaluru Mahanagara Palike (BBMP) has formed a Biodiversity Management Committee (BMC) as per the Bio Diversity Act of 2002, which mandates the establishment of BMCs at the local body level across the country.

- The committee will work towards conservation and promotion of biological diversity.
- The primary responsibility of the committee includes documentation of biological diversity, preservation of natural habitats, conservation of landrace, local and regional breeds of animals and plants.
  - One of the important functions of the committee would be to prepare or help prepare People's Biodiversity Register (PBR), which will contain comprehensive information on local flora and fauna, traditional and scientific knowledge, and information associated with species.
- Q.3) Consider the following statements regarding the Centre for Biodiversity Policy and Law (CEBPOL):
- 1. It is established by Government of India in collaboration with the Norwegian Government.
- 2. It is a policy advocacy unit of the National Biodiversity Authority (NBA).

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: Government of India in collaboration with the Norwegian Government has established a "Centre for Biodiversity Policy and Law (CEBPOL)" in the National Biodiversity Authority (NBA), Chennai, to develop professional expertise in biodiversity policies and laws and develop capacity building.

- The Centre for Biodiversity Policy and Law (CEBPOL), a **policy advocacy unit of the National Biodiversity Authority**, came out with recommendations to increase India's agro-biodiversity in 2019.
- These include a comprehensive policy on 'ecological agriculture' to enhance native pest and pollinator population providing ecosystem services for the agricultural landscape.
- It suggested promotion of the bio-village concept of the M.S. Swaminathan Research Foundation (MSSRF) for ecologically sensitive farming;
- conserving crop wild relatives of cereals, millets, oilseeds, fibres, forages, fruits and nuts, vegetables, spices etc. for crop genetic diversity healthier food;
- Providing incentives for farmers cultivating native landrace varieties and those conserving indigenous breeds of livestock and poultry varieties.

# Q.4) Which of the following is/are sites of Globally Important Agricultural Heritage Systems (GIAHS) in India?

- 1. Kashmir (saffron)
- 2. Koraput (traditional agriculture)
- 3. Kuttanad (below sea-level farming)

Select the correct answer using the codes given below:

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

#### ANS: A

**Explanation:** The Global Agricultural Heritage Systems (GIAHS) was started by Food and Agricultural Organization (FAO) for the purpose of creating public awareness and safeguarding the World agricultural heritage sites. There are three regions of India, which has been recognised as the Global Agricultural Heritage Systems (GIAHS) cities in India: Koraput, Odisha State; Kashmir Valley, Pampore region; and Kuttanad.

- **Q.5)** The **Prerana MyTree**, an eco-initiative by students is started in which of the following state?
- a) Kerala
- b) Karnataka
- c) West Bengal
- d) Odisha

### ANS: B

**Explanation**: In the wake of 16-year-old Greta Thunberg's call for standing up for climate action, students all over the world are heeding her clarion call.

- On Children's Day, students in Bengaluru and Karnataka are doing their bit for the environment by planting trees.
- Prerana MyTree, an eco-initiative by students from 48,000 government schools across Karnataka will plant about 2.5 lakh trees across the state.
- Prerana MyTree is supported by the state government, the NGO Sikshana Foundation, Dell and Bengaluru-based startup, Eyeris Media.

## Q.6) Consider the following statements regarding the Adaptation Fund (AF):

- 1. It was established under the Kyoto Protocol of the UN Framework Convention on Climate Change.
- 2. AF-funded projects are implemented around the world through accredited National Implementing Entities, Multilateral Implementing Entities and Regional Implementing Entities.
- 3. NABARD is the National Implementing Entity of India.

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: D

**Explanation:** The Adaptation Fund (AF) was established to finance concrete adaptation projects and programmes in developing countries that are particularly vulnerable to the adverse effects of climate change.

- It was established under the Kyoto Protocol of the UN Framework Convention on Climate Change, and since 2010 has committed funds for localized climate adaptation and resilience activities. Initiatives are based on country needs and priorities.
- AF-funded projects are implemented around the world through accredited National Implementing Entities, Multilateral Implementing Entities and Regional Implementing Entities.
- The original primary source of revenue for the Fund the sale of Certified Emission Reduction credits through a 2% levy on UN Clean Development Mechanism projects that help meet Kyoto's emission reduction targets has drastically diminished due to market forces.
- NABARD has been accredited as National Implementing Entity (NIE) for Adaptation Fund in July 2012 and is the only NIE for India.
- The NIEs are those national legal entities nominated by Parties (to the Kyoto Protocol) that are recognized by the Board as meeting the fiduciary standards established by the Board.
- The NIEs bear full responsibility for the overall management of the projects and programmes financed by the Adaptation Fund and have all financial, monitoring, and reporting responsibilities.

## **Q.7)** The Global Environment Facility (GEF) serves as the **financial mechanism** for which of the following conventions?

- 1. United Nations Framework Convention on Climate Change (UNFCCC)
- 2. UN Convention to Combat Desertification (UNCCD)
- 3. Montreal Protocol of Ozone Depleting Substances
- 4. Minamata Convention on Mercury

Select the correct answer using the codes 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: B

Explanation: The Global Environment Facility was established in October 1991 as a \$1 billion pilot program in the World Bank to assist in the protection of the global environment and to promote environmental sustainable development.

The Global Environment Facility (GEF) **unites 183 countries** in partnership with international institutions, civil society organizations (CSOs), and the private sector to address global environmental issues while supporting national sustainable development initiatives.

The GEF also serves as the financial mechanism for the following conventions:

- Convention on Biological Diversity (CBD)
- United Nations Framework Convention on Climate Change (UNFCCC)
- UN Convention to Combat Desertification (UNCCD)
- Stockholm Convention on Persistent Organic Pollutants (POPs)
- Minamata Convention on Mercury

## Q.8) The Actions on Air Quality report is released by which of the following?

- a) World Economic Forum
- b) World Bank
- c) United Nations Environment Programme
- d) Greenpeace

#### ANS: C

**Explanation:** The Actions on Air Quality report is released by United Nations Environment Programme (UNEP).

# **Q.9) Phansad Wildlife Sanctuary** is recently in news is located in which of the following state?

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

#### ANS: A

**Explanation:** Wildlife researchers recently documented the presence of an Indian gaur in the Phansad Wildlife Sanctuary (PWS) in Roha and Murud talukas of Raigad district.

- According to the **Maharashtra** forest department, this is the first time a sighting of this species of bison has been reported or documented at the sanctuary.
- The Indian Gaur is listed as Schedule I species under the Wildlife Protection Act, 1972 and is tagged as 'vulnerable' on the International Union for Conservation of Nature's (IUCN) Red List.
- Gaurs are the world's largest and tallest wild bovines, with 85% of their current population found in India.
- Male gaurs weigh 1,000-1,500kg, while females weigh 700-1,000kg. Their height ranges from 165-220cm (5 to 7ft).

## **Q.10)** Consider the following statements regarding the **Carbon Credit**:

- 1. The holder of the credit has the right to emit one ton of carbon dioxide or an equivalent of another greenhouse gas.
- 2. The Paris Agreement validates the application of carbon credits to reduce emissions of the greenhouse gases.

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: A carbon credit is a tradable permit or certificate that provides the holder of the credit the right to emit one ton of carbon dioxide or an equivalent of another greenhouse gas.

- The main goal for the creation of carbon credits is the reduction of emissions of carbon dioxide and other greenhouse gases from industrial activities to reduce the effects of global warming.
- Carbon credits are market mechanisms of the minimization of greenhouse gases emission. The introduction of carbon credit was ratified in the Kyoto Protocol.
- The Paris Agreement validates the application of carbon credits to reduce emissions of the greenhouse gases and sets the provisions for the further facilitation of the carbon credits markets.

## **Types of Carbon Credits**

There are two types of the carbon credits:

- **Voluntary emissions reduction (VER):** A carbon offset that is exchanged in the overthe-counter or voluntary market for credits.
- **Certified emissions reduction (CER):** Emission units (or Carbon credits) created through a regulatory framework with the purpose of offsetting a project's emission. The main difference between the two is that there is a third party certifying body that regulates the CER as opposed to the VER.

## Q.11) Consider the following statements regarding the Indian Green Building Council (IGBC):

- 1. It is an autonomous body of Ministry of Environment, Forest and Climate Change.
- 2. It offers a wide array of services like developing new green building rating programmes, certification services and green building training programmes.
- 3. It organizes Green Building Congress, its annual flagship event on green buildings.

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: C

Explanation: The Indian Green Building Council (IGBC), part of the Confederation of Indian Industry (CII) was formed in the year 2001.

• The vision of the council is, "To enable a sustainable built environment for all and facilitate India to be one of the global leaders in the sustainable built environment by 2025".

- The council offers a wide array of services which include developing new green building rating programmes, certification services and green building training programmes.
- The council also organizes Green Building Congress, its annual flagship event on green buildings.
- The council is committee-based, member-driven and consensus-focused.
- All the stakeholders of construction industry comprising of architects, developers, product manufacturers, corporate, Government, academia and nodal agencies participate in the council activities through local chapters.
- The council also closely works with several State Governments, Central Government, World Green Building Council, bilateral multi-lateral agencies in promoting green building concepts in the country.
- **Q.12)** According to the International Labour Organization (ILO) report, Working on a warmer planet: The impact of heat stress on labour productivity and decent work, which of the following **sector** is the most affected?
- a) Agriculture sector
- b) Manufacturing sector
- c) Construction business
- d) Service sector

#### ANS: A

**Explanation:** According to the International Labour Organization (ILO) report, Working on a warmer planet: The impact of heat stress on labour productivity and decent work, **Globally** two sectors projected to be hit worst are agriculture and construction, with agriculture worse affected.

- The ILO says 940 million people around the world work in the agricultural sector, which is projected to account for 60% of working hours lost due to heat stress by 2030.
- In construction, an estimated 19% of global working hours are likely to be lost.
- **Q.13)** The Climate Change Performance Index (CCPI) ranks individual countries based on four categories. Which of the following are the **categories of CCPI**?
- 1. Green House Gas (GHG) Emissions
- 2. Renewable Energy
- 3. Climate Policy
- 4. Energy Use

Select the correct answer using the codes 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:** The CCPI (released by Germanwatch) is an independent monitoring tool of countries' climate protection performance.

- It aims to enhance transparency in international climate politics and enables the comparability of climate protection efforts and progress made by individual countries.
- The ranking results are defined by a country's aggregated performance in 14 indicators within the four categories "GHG Emissions", "Renewable Energy" and "Energy Use", as well as on "Climate Policy", in a globally unique policy section of the index.

Q.14) Consider the following statements regarding the drought forecasting tool box:

- 1. It was unveiled at 14th Conference of Parties (COP14) of the UN Convention to Combat Desertification (UNCCD).
- 2. It aims to track, assess and deliver relevant information concerning climatic, hydrologic and water supply trends.

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:** 'Drought-forecasting toolbox' was unveiled at UNCCD COP14 event. The 14th Conference of Parties (COP14) of the UN Convention to Combat Desertification (UNCCD) was held in Greater Noida, Uttar Pradesh.

- It aims to track, assess and deliver relevant information concerning climatic, hydrologic and water supply trends.
- It is developed through the close partnership among, UNCCD, World Meteorological Organization (WMO), Food and Agriculture Organization (FAO) and global bodies.

Q.15) The "4 per 1000" initiative, sometimes seen in news is related to which of the following?

- a) Renewable energy
- b) Electric vehicles
- c) Carbon stock
- d) Biodiversity conservation

#### ANS: C

**Explanation:** The international initiative "4 per 1000", launched by France on 1 December 2015 at the COP 21, consists of federating all voluntary stakeholders of the public and private sectors (national governments, local and regional governments, companies, trade organizations, NGOs, research facilities, etc.) under the framework of the Lima-Paris Action Plan (LPAP).

- The aim of the initiative is to demonstrate that agriculture, and in particular agricultural soils can play a crucial role where food security and climate change are concerned.
- An annual growth rate of 0.4% in the soil carbon stocks, or 4‰ per year, in the first 30-40 cm of soil, would significantly reduce the CO2 concentration in the atmosphere related to human activities.
- This growth rate is not a normative target for each country, but is intended to show that even a small increase in the **soil carbon stock** (agricultural soils, notably grasslands and pastures, and forest soils) is crucial to improve soil fertility and agricultural production and to contribute to achieving the long-term objective of limiting the temperature increase to the +2°C threshold, beyond which the IPCC (Intergovernmental Panel on Climate Change) indicates that the effects of climate change are significant.
- The "4 per 1000" initiative is intended to complement those necessary efforts to reduce greenhouse gas emissions, globally and generally in the economy as a whole. It is voluntary; it is up to each member to define how they want to contribute to the goals.

Q.16) Consider the following statements regarding the 1995 Basel Ban Amendment:

- 1. It is a global waste dumping prohibition.
- 2. It was ratified by India.
- 3. It prohibits all hazardous exports from 29 wealthiest countries of the Organization of Economic Cooperation and Development (OECD) to non-OECD countries.

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:** The 1995 Basel Ban Amendment, a **global waste dumping prohibition**, has become an international law after Croatia ratified it on September 6, 2019.

- Croatia became the 97th country to ratify the ban, which was adopted by the parties to the Basel Convention in 1995, to protect human health and the environment against the adverse effects of hazardous wastes, according to Basel Action Network (BAN).
- The Ban Amendment prohibits all export of hazardous wastes, including electronic wastes and obsolete ships from 29 wealthiest countries of the Organization of Economic Cooperation and Development (OECD) to non-OECD countries.
- However, countries like the US, Canada, Japan, Australia, New Zealand, South Korea, Russia, India, Brazil, and Mexico are yet to ratify the ban.

**Q.17)** "Bhavani wildlife sanctuary" is often seen in news is located in which of the following state?

- a) Karnataka
- b) Tamil Nadu
- c) Andhra Pradesh
- d) Kerala

#### ANS: D

**Explanation:** The Kerala State government is set to declare the 148-sq-km buffer zone of the Silent Valley National Park as **Bhavani wildlife sanctuary**.

- Encompassing parts of the Mannarkkad and Nilambur (South) forest divisions, the region will become the 25th protected area in the State.
- Home to abundant faunal and floral wealth, the Bhavani wildlife sanctuary is also known to be an **emerging haven of dragonflies and damselflies**.
- A recent faunal survey revealed the presence of several rare species of odonates here.
- There are currently five national parks, 18 wildlife sanctuaries, including two tiger reserves at Parambikulam and Periyar, and one community reserve in the State.
- The government had notified the Karimpuzha wildlife sanctuary in Malappuram in December last.

## **Q.18)** Arrange the following **Tiger reserves** from west to east direction:

- 1. Buxa tiger reserve
- 2. Manas tiger reserve
- 3. Pakke tiger reserve
- 4. Kaziranga tiger reserve

Select the correct answer using the codes given below:

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

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

#### ANS: A

**Explanation:** Project Tiger was formally launched in India on 1st April 1973, with the goal of saving the tiger and its habitat in India.

- With an initial 9 Tiger Reserves, the Project went on to cover 50 Tiger Reserves across the country, incorporating an area of 71,027.10 sq. km.
- Although Project Tiger tackled various issues over the past 45 years, it was unable to keep pace with the rapid changes that affected the tiger landscape, including increased human pressures.
- In 2006, it was replaced by the National Tiger Conservation Authority (NTCA).



Q.19) Which of the following specie (s) is/are considered to have gone extinct in India?

- 1. The cheetah
- 2. Sumatran rhinoceros
- 3. Pink-headed duck

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: D

Explanation: Four species of fauna and 18 species of flora have gone extinct in India in the past few centuries, according to wildlife survey organisations.

- As per the Botanical Survey of India (BSI) 18 species of plants four non-flowering and 14 flowering have gone extinct.
- The notable among them are Lastreopsis wattii, a fern in Manipur discovered by George Watt in 1882 and three species from the genus Ophiorrhiza (Ophiorrhiza brunonis, Ophiorrhiza caudate and Ophiorrhiza radican), all discovered from peninsular India.
- Corypha taliera Roxb, a palm species discovered in Myanmar and the Bengal region by William Roxburgh is also extinct.
- Among mammals, **the cheetah** (Acionyx jubatus) and the **Sumatran rhinoceros** (Dicerorhinus sumatrensisi) are considered extinct in **India**.
- The pink-headed duck (Rhodonessa caryophyllaceai) is feared extinct since 1950 and the Himalayan quail (Ophrysia supercililios) was last reported in 1876.

**NOTE**: Director of the Botanical Survey of India (BSI) said India is home to 11.5% of all flora in the world. According to the International Union for Conservation Of Nature (IUCN), a new study has shown that since 1750, more than double the number of plants have disappeared from the wild than birds, mammals and amphibians combined.

Q.20) Consider the following statements regarding the Nilgiri langur (s):

- 1. It is one of the New World Monkey.
- 2. It is endemic to Western Ghats in South India.
- 3. They are arboreal and diurnal in nature.

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: C

**Explanation:** The Nilgiri langur, also known as the hooded leaf monkey, black leaf monkey, Indian hooded leaf monkey, John's langur, Nilgiri black langur, and the Nilgiri leaf monkey, is a **species of Old World monkey endemic to South India**.

- It is found in the Western Ghats, particularly in the Nilgiri Hills from which it derives its name, but also in other hilly areas in that region.
- They prefer to live between 980 and 6,500 ft (300–2,000 m) above sea level, and typically settle in at around 4,600 ft (1,400 m).
- Since they are an **arboreal species**, they seek out habitat with trees, and are known to inhabit secondary moist deciduous forests and evergreen forests. Other considerations include proximity to water and distance from humans.
- This is a **diurnal species**, meaning they are active during the day. While active, they spend approximately half of their time eating and the other half resting.

**Q.21)** The Central Government provides financial support to the States for supporting conservation of wildlife and biodiversity. Which of the following **scheme (s)** is/are supported by central government?

1. Development of National Parks and Sanctuaries (DNPS).

- 2. National tiger conservation authority (Project tiger).
- 3. Project Elephant (PE).

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 Central Government provides financial support to the States for supporting conservation of wildlife and biodiversity, through the following umbrella schemes:

- 1. Development of National Parks and Sanctuaries (DNPS);
- 2. Project Tiger (PT)
- 3. Project Elephant (PE)
- 4. Protection of Wildlife Outside Protected Areas (PWOPA).

Q.22) Consider the following statements regarding the Central Zoo Authority (CZA):

- 1. It was established in 2002 under executive resolution.
- 2. It regulates the exchange of animals of endangered category listed under Schedule I and II of Wildlife protection act, 1972.

Which of the statements given above is/are correct?

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

#### ANS: B

Explanation: The Central Zoo Authority (CZA) was created in February, 1992 under an Act of Parliament (Section 38A of Wild Life (Protection) Act, 1972 as amended in 1991) to control mushrooming of ill-conceived/ill planned zoos.

- And to monitor and evaluate the existing zoos and to suggest ways and means for the improvement of zoos in the country.
- So that they can be transformed into potent centres for the ex-situ conservation of endangered wild fauna.
- The Central Zoo Authority regulates the exchange of animals of endangered category listed under Schedule I and II of Wildlife protection act, 1972.

**Q.23)** The **Biodiversity Finance Initiative - BIOFIN** was launched by which of the following institution?

- a) UNFCCC
- b) United Nations Development Programme (UNDP)
- c) United Nations Environmental Programme (UNEP)
- d) Global Environment Facility (GEF)

#### ANS: B

**Explanation:** Available evidence and the decisions adopted by Parties to the Convention on Biological Diversity (CBD) indicate that a significant gap remains in finance for biodiversity management, for countries to drastically scale up their efforts and achieve the 20 Aichi Targets defined in the CBD's Strategic Plan for 2011-2020.

- A preliminary assessment conducted under the auspices of the High Level Panel on Global Assessment of Resources for Implementing the CBD Strategic Plan for 2011-2020, estimated that the global investment required amounts to between 130 and 440 billion US\$ annually.
- In this context, **UNDP** in **October 2012 launched the Biodiversity Finance Initiative BIOFIN**, as a new global partnership seeking to address the biodiversity finance challenge in a comprehensive manner building a sound business case for increased investment in the management of ecosystems and biodiversity, with a particular focus on the needs and transformational opportunities at the national level.
- BIOFIN aims to develop a methodology for quantifying the biodiversity finance gap at national level, for improving cost-effectiveness through mainstreaming of biodiversity into national development and sectoral planning, and for developing comprehensive national resource mobilizing strategies.
- India's Vice President Shri Venkaiah Naidu launched India's Biodiversity Finance Plan on 24th May 2019, during celebrations in Chennai for International Day of Biological Diversity.

## Q.24) The People's Biodiversity Registers (PBRs) is related to which of the following?

- a) The Indian Forest Act, 1927
- b) The Wildlife Protection Act, 1972
- c) The Forest (Conservation) Act, 1980
- d) The Biological Diversity Act 2002

#### ANS: D

**Explanation:** As per the **Biological Diversity Act 2002** and Rules 2004, it is necessary to constitute State Biodiversity Boards (SBBs) and Biodiversity Management Committees (BMCs) and make them functional for documentation, conservation and sustainable utilization of Biodiversity.

**Preparation of People's Biodiversity Registers (PBRs)** involving locals and BMCs and with guidance from SBBs and NBA is also stipulated in the Act and Rules.

The People's Biodiversity Registers are the one way of documenting traditional knowledge and provide:

- information on availability of traditional knowledge of people relating to biological resources
- details of the access to biological resources and traditional knowledge granted,
- · details of collection fee imposed and benefits derived, and
- Mode of sharing the benefits.

**Q.25)** The **Producer Responsibility Organization (PRO)**, sometimes seen in news, is related to which of the following?

- a) E-waste (Management) Rules, 2016
- b) NITI aayog
- c) The Central Pollution Control Board of India
- d) National Green Tribunal

#### ANS: A

**Explanation: E-waste (Management) Rules, 2016**, enacted since October 1, 2017, had further strengthened the existing rules.

• Over 21 products (Schedule-I) were included under the purview of the rule. The rule also extended its purview to components or consumables or parts or spares of Electrical and Electronic Equipment (EEE), along with their products.

- The present rule has strengthened the Extended Producer Responsibility (EPR), which is the global best practice to ensure the take-back of the end-of-life products.
- A new arrangement entitled, 'Producer Responsibility Organisation' (PRO) has been introduced to strengthen EPR further.
- PRO, a professional organisation, would be authorised or financed collectively or individually by producers, to share the responsibility for collection and channelisation of e-waste generated from the 'end-of-life' products to ensure environmentally sound management of such e-waste.

Q.26) Consider the following statements regarding the fly ash:

- 1. It is extremely hydrophilic in nature.
- 2. Its size varies from 100nanometres to a few microns.
- 3. It can be used as a resource material for many applications of construction industries. 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: D

**Explanation:** Fly ash, the end product of combustion during the process of power generation in the coal based thermal power plants.

- It is a proven resource material for many applications of construction industries and currently is being utilized in manufacturing of Portland Cement, bricks/blocks/tiles manufacturing, road embankment construction and low-lying area development, etc.
- Researchers at the Indian Institute of Technology (IIT) Hyderabad have developed a cheap waterproofing material by coating fly ash, a waste by-product from coal-based thermal power plants, with stearic acid, which is a surfactant.
- While fly ash is extremely water-loving (hydrophilic), it turns into a highly water-repelling surface once coated with stearic acid.
- Fly ash varies in size from 100 nanometres to a few microns and can thus provide surfaces with different roughness based on the size of the particles chosen.

**Q.27)** Recently which country **officially banned reef-toxic sunscreen** to protect coral reefs?

- a) New Zealand
- b) Australia
- c) Palau
- d) Solomon Islands

#### ANS: C

**Explanation:** In an attempt to protect the coral reefs that divers so admire they have dubbed them the underwater Serengeti.

- The **Pacific nation of Palau** will soon ban many types of sunscreen.
- President Tommy Remengesau Jr. last week signed legislation that bans "reef-toxic" sunscreen from 2020.
- Banned sunscreens will be confiscated from tourists who carry them into the country, and merchants selling the banned products will be fined up to \$1,000.

**Q.28)** The "Mission 175" is often seen in news is related to which of the following?

- a) Renewable energy
- b) Controlling heavy metal contamination
- c) Protection of Endangered and near extinct species
- d) None

#### ANS: A

Explanation: Mission 175 is a global platform to explore strategies for development and deployment of renewables.

- It is hosted by the Ministry of New and Renewable Energy (MNRE), the event showcases India's renewable energy potential and the Government's efforts to scale up capacity to meet the national energy requirement in a socially, economically and ecologically sustainable manner.
- In the year 2015, the Government of India announced a target for 175 GW cumulative renewable power installed capacity by the year 2022.

**Q.29)** Consider the following statements regarding the **Tropical Forest Alliance**:

- 1. It is global public-private partnership action to realize opportunities based on reduced deforestation and sustainable land use management in tropical forest countries.
- 2. It is funded and hosted by United Nations Convention to Combat Desertification (UNCCD).

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:** Protecting forests is critical to averting the most dangerous climate change and achieving the Sustainable Development Goals and the Paris Climate Agreement.

- Avoiding further deforestation could reduce carbon dioxide emissions by three to four billion metric tons per year the equivalent of taking half the world's cars off the road.
- Natural climate solutions represent more than 30% of cost effective emissions reductions.
- The Tropical Forest Alliance is a global public-private partnership dedicated to collaborative action to realize sustainable rural development and better growth opportunities based on reduced deforestation and sustainable land use management in tropical forest countries.
- The Alliance includes more than 150 partners representing the private sector, governments, civil society organizations, indigenous peoples groups and multilateral organizations who are committed to reducing tropical deforestation associated with the production of palm oil, soy, beef and pulp and paper.
- TFA is funded by the governments of Norway, the United Kingdom and the Netherlands, Germany, and the Gordon and Betty more Foundation and hosted at the World Economic Forum.

**Q.30)** Consider the following statements regarding the **Ramsar sites** in India:

- 1. Ramsar classification of wetlands includes Coastal and Inland wetlands only.
- 2. All coastal states of India have Ramsar sites.

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:** The Ramsar Convention signed on February 2, 1971, is one of the oldest inter-governmental accord signed by members countries to preserve the ecological character of their wetlands of international importance.

The aim of the Ramsar list is to develop and maintain an international network of wetlands, which are important for the conservation of global biological diversity and for sustaining human life through the maintenance of their ecosystem components, processes and benefits.

The Ramsar Convention has adopted a Ramsar Classification of Wetland Type which includes 42 types, grouped into three categories:

- 1. Marine and Coastal Wetlands,
- 2. Inland Wetlands,
- 3. Human-made Wetlands.

Except Goa and Karnataka all coastal states have Ramsar sites.

## Q.31) Consider the following statements regarding the recently discovered mineral Goldschmidtite:

- 1. It was discovered in deep sea mines of Arctic Ocean.
- 2. It has high concentrations of elements like magnesium, iron, niobium and potassium. 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:** A new, curious mineral has been discovered inside a diamond unearthed from a **mine in South Africa**.

- The **mineral has been named goldschmidtite**, after Victor Moritz Goldschmidt, the Norwegian scientist acknowledged as the founder of modern geochemistry.
- Goldschmidtite has an unusual chemical signature for a mineral from Earth's mantle, according to the University of Alberta, a student of which discovered it.
- While the mantle is dominated by elements such as magnesium and iron, goldschmidtite has high concentrations of niobium, potassium and the rare earth elements lanthanum and cerium.
- PhD student Nicole Meyer found a single grain of the mineral in the diamond, unearthed in Koffiefontein, South Africa.
- The university described it as dark green and opaque.

## Q.32) Consider the following statements regarding the Rare Earth Elements (REE):

- 1. The rare earth elements are all metals.
- 2. Rare earth element Cerium Oxide is used for polishing Granite and Marble stones. 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:** Rare earth elements are a group of seventeen chemical elements that occur together in the periodic table.

- The group consists of yttrium and the 15 lanthanide elements (lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium).
- Scandium is found in most rare earth element deposits and is sometimes classified as a rare earth element.
- The rare earth elements are all metals and the group is often referred to as the "rare earth metals."
- These metals have many similar properties, and that often causes them to be found together in geologic deposits.
- They are also referred to as "rare earth oxides" because many of them are typically sold as oxide compounds.
- A large number of alloys are made more durable by the addition of rare earth metals.
- Glass, granite, marble, and gemstones are often polished with cerium oxide powder. Many motors and generators contain magnets made with rare earth elements.
- Phosphors used in digital displays, monitors, and televisions are created with rare earth oxides. Most computer, cell phone, and electric vehicle batteries are made with rare earth metals.

Q.33) The Placer deposits of India mostly/highly located at which of the following?

- a) Coastal areas
- b) Deccan Plateau
- c) Himalayas
- d) Northern Plains

#### ANS: A

Explanation: The costal land forms of east and west coasts of the Nation contain significantly important placer mineral deposits.

- The minerals like ilmenite, rutile, garnet, zircon, monazite and sillimanite are occurring in these deposits.
- The controls like source rock geology, coastal geomorphology effective drainage network and favorable climatic conditions favored the formation of rich placer deposits in coastal environments.
- Important deposits occur in the coastal environments of Kerala (Chavara), Tamil Nadu (Manavalakurichi, Midalam, Vayakallur), Andhra Pradesh (Kakinada, Pentakota, Bhimunipatnam, Konada Kandivalasa Mukumpeta Bendi creek Donkar), (Sanaekasangi Gopalpur, Chatrapur, Bajarkot, Satpara and Puri) and Maharastra (Kalbadevi, Newre and Malgund).

**Q.34)** Recently Scientists discovered a **paleochannel or ancient channel**, which are filled with younger sediments is located in which of the following state?

- a) Madhya Pradesh
- b) Andhra Pradesh
- c) Arunachal Pradesh
- d) Uttar Pradesh

#### ANS: D

Explanation: The Union Water Ministry has excavated an old, dried-up river in Prayagraj (formerly Allahabad) that linked the Ganga and Yamuna rivers.

- The "ancient buried river" as it was described at a conference organised by the Ministry, is around 4 km wide, 45 km long and consisted of a 15-metre-thick layer buried under soil.
- These paleochannels reveal the course of rivers that have ceased to exist.
- The aim is to develop it as a potential groundwater recharge source, according to officials at the National Mission for Clean Ganga (NMCG), a body under the Union Jal Shakti Ministry that coordinates the cleaning of the Ganga.

**Q.35)** The **White Island Volcano**, sometimes seen in news is located in which of the following country?

- a) Australia
- b) Indonesia
- c) Philippines
- d) New Zealand

#### ANS: D

**Explanation:** The White Island Volcano, also called Whakaari, in **New Zealand** has recently erupted.

- White Island is New Zealand's most active cone volcano.
- About 70% of the volcano lies under the sea.
- It is the country's most active volcano situated in the east coast in the Bay of Plenty.

Q.36) The "CAFE norms" often seen in news are related to which of the following?

- a) Cyber rules
- b) E-waste regulations
- c) Fuel efficiency norms
- d) Storage regulations

## ANS: C

Explanation: CAFE (Corporate Average Fuel Efficiency/Economy) norms aim at lowering fuel consumption (or improving fuel efficiency) of vehicles.

- CAFE is the average fuel efficiency of all vehicles produced by a manufacturer in a given period, taking into consideration the sales volume of each model.
- The government expects that a strict CAFE target will provide incentives to auto makers to produce and sell more EVs, to improve their average fuel efficiency.

Q.37) According to Greenpeace, which of the following country is the largest emitter of sulphur dioxide in the world?

- a) China
- b) Russia
- c) India
- d) United States of America

## ANS: C

**Explanation: India is the world's largest emitter of anthropogenic sulphur dioxide**, which is produced from coal burning, and greatly contributes to air pollution, a study claimed on August 19.

According to an analysis of a National Aeronautics and Space Administration (NASA) data released by environmental NGO Greenpeace on August 2019, India has more than 15% of all anthropogenic sulphur dioxide (SO2) hotspots in the world detected by the OMI (Ozone Monitoring Instrument) satellite.

- The major SO2 emission hotspots in India are Singrauli in Madhya Pradesh, Neyveli and Chennai in Tamil Nadu, Talcher and Jharsuguda in Odisha, Korba in Chhattisgarh, Kutch in Gujarat, Ramagundam in Telangana and Chandrapur and Koradi in Maharashtra.
- The vast majority of plants in India lack flue-gas desulfurization technology to reduce their air pollution.
- The NASA data also highlights other hotspots across the globe, with the Norilsk smelter complex in Russia being the largest SO2 emission hotspot in the world, followed by Kriel in Mpumalanga province in South Africa and Zagroz in Iran.
- However, as **per country-wise world rankings**, India was found at the top position in emitting SO2 as it has the maximum hotspots.

**Q.38)** Consider the following statements regarding the **winter-grade diesel**:

- 1. It has been developed by the Indian Oil Corporation Limited (IOCL).
- 2. It does not meet the Bharat Standard VI norms.
- 3. It addresses the problem of loss of fuel during extreme winter conditions. 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: Indian Oil (IOCL) has come up with an innovative solution to this problem by introducing a special winter-grade diesel with a low pour-point of -33 degree Celsius, which does not lose its fluidity function even in extreme winter conditions.

This winter-grade diesel also meets BIS specification of BS-VI grade and was successfully produced and certified for the first time by the Panipat Refinery.

Q.39) Which of the following national park area is formed entirely by alluvial deposits?

- a) Namdapha National park
- b) Kaziranga National park
- c) Nagarhole National park
- d) Silent Valley National park

#### ANS:

**Explanation:** Assam is traditionally flood prone, and the 1,055 sq km KNPTR — sandwiched between the Brahmaputra River and the Karbi Anglong Hills — is no exception.

- Among experts there is a consensus that floods are necessary for Kaziranga by virtue of its ecosystem.
- "It is a riverine ecosystem, not a solid landmass-based ecosystem," said by Director, KNPTR, "The system won't survive without water."
- The entire area of Kaziranga formed by alluvial deposits from the Brahmaputra and its tributaries is centred around the river.

**Q.40)** The **process** under which farmers grow trees for commercial and non-commercial purposes on their farm lands is termed as?

- a) Rural forestry
- b) Agro-forestry
- c) Farm forestry

#### d) Social forestry

#### ANS: C

**Explanation: Farm forestry** is a term applied to the process under which farmers grow trees for commercial and non-commercial purposes on their farm lands.

- Forest departments of various states distribute seedlings of trees free of cost to small and medium farmers.
- Several lands such as the margins of agricultural fields, grasslands and pastures, land around homes and cow sheds may be used for raising trees under non-commercial farm forestry.

Q.41) Consider the following statements regarding the Kaiser-i-Hind butterfly:

- 1. It is mostly found in the Eastern Himalayas.
- 2. It is protected under schedule II of Wildlife (Protection) Act, 1972.
- 3. It is an IUCN red-listed species.

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: D

**Explanation:** Kaiser-i-Hind (Teinopalpus imperialis) is one of the most elusive swallowtail butterflies, with a 90mm to 120mm wingspan.

- It occurs in Eastern Himalayan States like Bengal (Darjeeling), Sikkim, Assam, Arunachal Pradesh, Manipur, the Khasi hills of Meghalaya as well as outside India in Nepal, Bhutan, Myanmar, southern China, Vietnam and Laos.
- The butterfly keeps to the top of trees and is therefore difficult to capture. It was once plentiful in the Khasi hills, near Cherrapunjee.
- Kaiser-i-Hind is a rare and spectacular swallowtail butterfly species. It is protected by Indian law under schedule II of Wildlife (Protection) Act, 1972.
- This butterfly is an IUCN red-listed species.
- It has a strong and fast flight. It usually flies at tree-top level but when there is strong morning sunlight it descends to sit on low vegetation.
- April to July is the period when it is in flight. Its eggs are laid on the underside of leaves and are pale purplish red in colour and smooth and spherical in shape.

**Q.42)** The **Slender Loris species**, sometimes seen in news is endemic to which of the following area?

- a) Eastern Ghats
- b) Western Ghats
- c) North Himalayas
- d) North Eastern Himalayas

### ANS: A

Explanation: Lorises are unique tiny creatures that live on trees. Endemic to the Eastern Ghats they are distributed in select pockets across Tamil Nadu, Andhra Pradesh and Kerala.

• The patch of deciduous shrub forest in Ayyalur, situated on the Dindigul-Tiruchi-Karur border has been identified as an international hotspot for the Grey Slender Loris by IUCN (International Union for Conservation of Nature).

• IUCN has listed them as Endangered, whereas they are listed under the Schedule I of the Wildlife (Protection) Act of India, 1972, according them the highest level of legal protection.

**Q.43)** Under which of the following Act, the Environmental Impact Assessment (EIA) has got the **statutory status**?

- a) The Indian Wildlife (Protection) Act (1972)
- b) The Air (Prevention and Control of Pollution) Act (1981)
- c) The Environment (Protection) Act (1986)
- d) The Biological Diversity Act (2002)

#### ANS: C

**Explanation:** Environmental Impact Assessment (EIA) is a process of evaluating the likely environmental impacts of a proposed project or development, taking into account interrelated socio-economic, cultural and human-health impacts, both beneficial and adverse.

- EIA is basically a tool used to assess the positive and negative environmental, economic and social impacts of a project. This is used to predict the environmental impacts of a project in the pre-planning stage itself so that decisions can be taken to reduce the adverse impacts.
- EIA started in India in 1976-77 when the Planning Commission directed the Department of Science & Technology to assess the river valley projects from the point of view of the environment.
- Then, in 1986, the government enacted the Environment (Protection) Act which made EIA statutory.
- The other main laws in this regard are the Indian Wildlife (Protection) Act (1972), the Water Act (1974), the Air (Prevention and Control of Pollution) Act (1981), and the Biological Diversity Act (2002).

**Q.44)** Consider the following statements regarding the **Platypus (mammal)**:

- 1. It is found only in Australia.
- 2. It is one of the monotremes that lay eggs instead of giving birth to live young. 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:** The platypus is a remarkable mammal found only in Australia. The platypus is a duck-billed, beaver-tailed, otter-footed, egg-laying aquatic creature native to Australia.

- The platypus is the sole living representative of its family, and genus, though a number of related species appear in the fossil record.
- It is one of the five extant species of monotremes, the only mammals that lay eggs instead of giving birth to live young.

**Q.45)** Which of the following pair (s) is/are correctly matched?

Zoological Park : State

Nehru Zoological Park
 Indira Gandhi Zoological Park
 Telangana
 Amirthi Zoological Park
 Tamil Nadu
 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: Indira Gandhi Zoological Park** is located amidst Kambalakonda Reserve Forest in Visakhapatnam, Andhra Pradesh, India. It is the third largest zoo in the country. The zoological park is named after the former Prime Minister of India, Indira Gandhi. It was declared open to the public on 19 May 1977.

**Nehru Zoological Park** is a zoo located near Mir Alam Tank in Hyderabad, Telangana, India.

**Amirthi Zoological Park** is a zoo in Tiruvannamalai District in the Indian state of Tamil Nadu. It was opened in 1967 and is about 25 kilometres from the Vellore city. The area of the park is 25 hectares and one can find beautiful waterfalls.

**Q.46)** Recently, world's oldest fossil forest has discovered by scientists in which of the following area?

- a) United States of America
- b) Congo
- c) Australia
- d) China

#### ANS: A

**Explanation:** Scientists have discovered remnants of the world's oldest fossil forest — an extensive network of trees around 386 million years old — in sandstone quarry in the U.S.

- The fossil forest in Cairo would have spread from New York all the way into Pennsylvania and beyond, according to the researchers from Binghamton University, and New York State Museum in the U.S.
- The forest is around 2 or 3 million years older than what was thought to be the world's oldest forest at Gilboa, also in New York State and around 40 kilometres away from the Cairo site.

Q.47) Consider the following statements regarding the Global Carbon Project (GCP):

- 1. It is a global research project of United Nations Environment Programme (UNEP).
- 2. The goal of the project is to develop a complete picture of the global carbon cycle. 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: The Global Carbon Project is a Global Research Project of Future Earth and a research partner of the World Climate Research Programme.

- It was formed to work with the international science community to establish a common and mutually agreed knowledge base to support policy debate and action to slow down and ultimately stop the increase of greenhouse gases in the atmosphere.
- The overwhelming realization that anthropogenic climate change is a reality has focused the attention of the scientific community, policymakers and the general public

on the rising atmospheric concentrations of the main greenhouse gases, carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O).

- The GCP has approached this challenge by focusing comprehensively on the global biogeochemical cycles which govern these three greenhouse gases, including their natural and human drivers, and opportunities for low carbon pathways.
- The scientific goal of the Global Carbon Project is to develop a complete picture of the global carbon cycle, including both its biophysical and human dimensions together with the interactions and feedbacks between them.

**Q.48)** The "Operation Clean Art" is sometimes seen in news is related to which of the following?

- a) Protection of Tigers
- b) Protection of Mongoose
- c) Protection of Olive ridley turtles
- d) Protection of Elephants

#### ANS: B

Explanation: "Operation Clean Art" was the first pan India operation to crackdown on the smuggling of mongoose hair in the country.

- There are six species of mongoose found in India and we have mostly recovered [in the raids] grey mongoose [hair].
- An adult mongoose yields over 30-40 gm of long hair, from which only 20-25 gm of "brush-making hair" is recovered.
- Operation Clean Art was conceived by WCCB with the singular aim of ensuring that the mongoose hair brush trade should be closed down across the country.
- Describing the making of brushes with mongoose hair an "organised crime", the official said most of these animals were poached by "hunting communities" across the country.
- The mongoose is listed in Schedule II Part 2 of the Wildlife Protection Act and any smuggling or possession of its body part is a non-bailable offence.

**Q.49)** Recently which of the following international Institute has launched the **Accelerator Lab** to tackling pollution?

- a) United Nations Environmental Programme (UNEP)
- b) World Economic Forum
- c) World Bank
- d) United Nations Development Programme (UNDP)

### ANS: D

**Explanation:** Seeking to address some of the most pressing issues facing India, including air pollution, through innovation, **the United Nations Development Programme** in November 2019, launched the country chapter of its Accelerator Lab here.

- The laboratory that will be housed in the UNDP India office has partnered with the Indian government's Atal Innovation Mission to achieve its objectives.
- Other issues that the laboratory will seek to address include sustainable water management and client-resilient livelihoods.

**Q.50)** The report, "Strengthening Forest Fire Management in India" is recently in news, is jointly prepared by the Ministry of Environment, Forest, and Climate Change (MoEFCC) and which of the following Multilateral Institution?

- a) World Economic Forum
- b) United Nations Environment Programme

- c) World Bank
- d) UN-REDD Programme

#### ANS: C

**Explanation:** At a time when India has managed to increase its forest cover to over 20 percent of its geographical area, forest health continues to show signs of strain.

- Regeneration is either inadequate or absent in about 45 percent of all forest areas and about 95 percent of all forest plots inventoried show some signs of degradation.
- The report, "Strengthening Forest Fire Management in India", jointly prepared by the Ministry of Environment, Forest, and Climate Change (MoEFCC) and the World Bank says forest fires are today a leading cause of forest degradation in India.
- The report discusses policies on forest fire prevention and management (FFPM) at the national, state and local levels, underscoring the need for a comprehensive national policy and guidelines.
- It provides recommendations on five broad themes policy, institutions and capacity, community engagement, technology, and data and information and looks at national and international best practices in FFPM.

## Map Based Question

- **Q.1)** Who among the following person, **explored the Himalayan region for the British** and received a gold medal from the Royal Geographical Society for his contributions?
- a) Pundit Nain Singh Rawat
- b) Sir James Hector
- c) Alfred Russel Wallace
- d) Ahmed Hassanein Bey

#### ANS: A

**Explanation:** Early in the 19th century, the British were enjoying significant power in the India subcontinent, working with and often against the scattered royal kingdoms that ruled over patches of land, small and large.

- They had grown from just traders at the ports of southern India to a military power with influence all the way up to the plains fed by the great Ganges.
- But Tibet, located beyond the towering Himalayas, was still a mystic land for them. That's when they recruited three brothers: Dolpa, Mani Singh and Nain Singh Rawat.
- Three brothers (mainly Nain Singh) explored the Himalayan region for the British. He received a gold medal from the Royal Geographical Society in the year 1876 for his contributions.
- Q.2) Consider the following statements regarding the different types of Maps:
- 1. General maps portray spatial associations of a variety of geographical phenomenon on a map.
- 2. Cadastral maps portray spatial variations of a single phenomenon or the relationship between phenomena.
- 3. Thematic Maps portray natural phenomena along with features produced by human activity.

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: A

**Explanation:** A map is a representation of a selection of real features on the Earth.

- It is designed to record the relationships between features and to allow these relationships to be analyzed.
- A map may be very simple (e.g. a sketch showing the location of plants in your garden) or very complex (e.g. a topographic map of the Australian Alps).

**General Maps:** These are simple maps showing important physical (natural and manmade) features in an area.

- Their main purpose is to summarize the landscape to aid discovery of locations.
- They are usually easy to read and understand. Most of the early mapping of the Earth falls into this group.

**Thematic Maps:** These are maps which depict information on a particular topic or theme.

• The detail portrayed on a thematic map may be physical, statistical, measured, or interpreted, and sometimes requires specialist knowledge by the map user.

• Weather, population density and geology maps are examples of thematic maps.

**Topographic Maps:** Like General Reference Maps, Topographic Maps are a summary of the landscape and show important physical (natural and man-made) features in an area. The primary difference is that they show elevation in detail.

**Cadastral Maps:** The cadastre of a country is its register of property titles and is usually managed by government agencies.

- The information recorded includes an accurate description of the location of a parcel of land and who owns it.
- It may also record what the land can be used for (e.g. residential or not, national park etc) and may also show the location and shape of buildings.
- **Q.3)** A system which allows the location of latitudes and longitudes (and heights) to be identified onto the surface of the Earth?
- a) Projection
- b) Grid
- c) Datum
- d) None

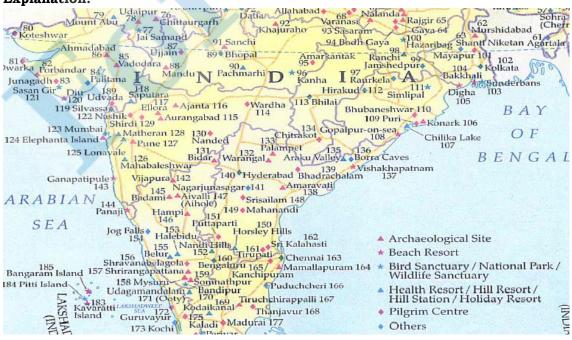
#### ANS: C

Explanation: A datum is a system which allows the location of latitudes and longitudes (and heights) to be identified onto the surface of the Earth - i.e. onto the surface of a 'round' object.

A projection is a process which uses the latitude and longitude which has already been 'drawn' on the surface of the Earth using a datum, to then be 'drawn' onto a 'flat piece of paper' - called a map.

- Q.4) Which of the following pilgrimage centre is the nearest one to tropic of cancer?
- a) Dwaraka
- b) Ujjain
- c) Amarkantak
- d) Puri

## ANS: B Explanation:



**Q.5)** The below given map represents which of the following Empire/Kingdom?



- a) Gupta Empire
- b) Harshavardhan Empire
- c) Satavahana Kingdom
- d) Delhi Sultanates

#### ANS: B

**Explanation:** After the overthrow of the White Huns no supreme power existed in India until the beginning of the 7th century.

- The decline of the Gupta Empire was followed by a period of political disorder and disunity in North India.
- It was only in the beginning of the seventh century AD that Harshvardhana (606-647 or 648) succeeded in establishing a larger kingdom in north India.
- Harsha, originally king of Thaneswar, after a thirty-five years' war, became the lord paramount of the north, while Pulikesin II, the greatest of the Chalukya dynasty, was the leading sovereign in the south.



**Q.6)** Arrange the following **Tiger reserves** from South to North:

- 1. Bhadra
- 2. Bandhavgarh
- 3. Bandipur
- 4. Bor

Select the correct answer using the code given below:

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

## ANS: A Explanation:



## Q.7) Arrange the following archaeological sites from West to East:

- 1. Rakhigarhi
- 2. Dholavira
- 3. Hastinapur
- 4. Sivasagar

Select the correct answer using the code given below:

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

### ANS: C

**Explanation:** Finance Minister has announced to develop five archaeological sites while presenting the budget 2020-21. These places are Rakhigarhi (Haryana), Hastinapur (Uttar Pradesh), Sivasagar (Assam), Dholavira (Gujarat) and Adichanallur (Tamil Nadu).



Q.8) Which of the following place (s) is/are manganese production centre (s) in India?

- 1. Tumkur
- 2. Cuddapah
- 3. Balaghat

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:** Manganese is not found as a free element in nature. It is often found in combination with iron. The most important manganese ore is pyrolusite. Manganese is primarily used in iron and steel industry.

**Andhra Pradesh**: 13% of India's manganese production comes from this state. Cuddapah, Vijayanagaram and Guntur are other manganese producing districts.

**Karnataka**: 6 per cent of India's manganese comes from this state. Uttara Kannada, Shimoga, Bellary, Chitradurg and Tumkur districts are manganese producing districts.

**Madhya Pradesh**: It produces about 27.59 per cent of India's manganese ore. The main belt extends in Balaghat and Chhindwara districts. It is just an extension of the Nagpur Bhandara belt of Maharashtra.

**Q.9)** Arrange the following **rivers** from west to east in India:

- 1. Sabarmati
- 2. Mahi
- 3. Parbatti
- 4. Betwa

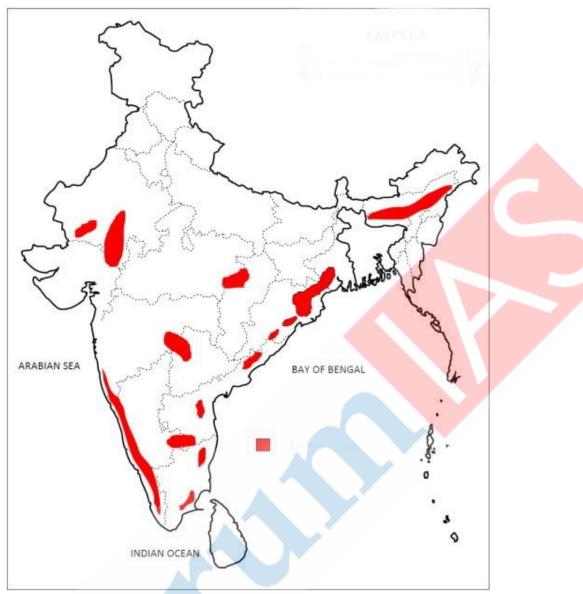
Select the correct answer using the code given below:

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

ANS: D



Q.10) In the below given figure, red colour represents which of the following soil type in India?



- a) Red soil
- b) Lateritic soil
- c) Montane soil
- d) Alluvial soil

## ANS: B

**Explanation:** Lateritic is a soil and rock type rich in iron and aluminum and is commonly considered to have formed in hot and wet tropical areas.

- Nearly all lateritics are of rusty-red coloration, because of high iron oxide content.
- They develop by intensive and prolonged weathering of the underlying parent rock.
- The lateritic soils are commonly found in Karnataka, Kerala, Tamil Nadu, Madhya Pradesh and the hilly areas of Orissa and Assam.

## Reports & commissions

- **Q.1)** The "Whitley Commission" during British period in India was related to which of the following?
- a) Agriculture
- b) Education
- c) Labour
- d) Irrigation

#### ANS: C

**Explanation:** The Royal Commission on Labour or the Whitley Commission on Labour was set up in 1929 to inquire into the existing conditions of labour in industrial undertakings and plantations in India. The Commission was chaired by John Henry Whitley. The commission submitted its report in 1931

- **Q.2)** The **cause of Bhagadars** (Tebhaga movement) was supported by which of the following commission?
- a) Floud Commission
- b) Chatfield Commission
- c) Sapru Commission
- d) Hilton Young Commission

#### ANS: A

**Explanation:** The Tebhaga movement was led by the share croppers of the Bengal region against the oppressive jotedars in 1946-47.

- The uprising was due to the share cropping system that prevailed in the Bengal. During the early nineteen century a new class of rich peasants known as jotedars emerged in the Bengal region.
- The jotedars collected huge tracts of land in rural areas. They also controlled the local markets, money lending activities, exercised control over the poor cultivators.
- The sharecroppers were encouraged by the Floud Commission which had already recommended their demand to the government.
- The movement was led by the All India Kisan Sabha, the peasant wing of CPI.
- Initially only few peasants were participated but in January 1947, the Bengal Bargadars Temporary Regulation Bill incorporated the demand of the Sharecroppers. This encouraged the movement and led to the increased participation of the peasants from rural areas.
- At the request of the jotedars, the police suppressed the sharecroppers. By March 1947, the movement slowly disappeared due to government promises. But the government failed to pass the bill immediately and it was only in 1950, the bill was passed.
- **Q.3)** The "Islington Commission" during British India was related to which of the following?
- a) Princely States
- b) Education
- c) Finance
- d) Public Service

#### ANS: D

# Explanation: Islington Commission, 1912 a Royal Commission formed to recommend reforms in the Public Service of British India with Lord Islington as its chairman.

- A ten member commission, which included three Indians, was given the task of examining the Indian demand to increase the number of Indians in the Higher Civil Services and, most importantly, holding simultaneous examination in India.
- The commission was guided by three principal considerations: firstly, to maintain high standards of civil administration in British India; secondly, to safeguard the paramount interest of British rule; and thirdly, to satisfy the reasonable aspirations of Indians and promote friendly relations between Indians and Europeans for better governance.
- The commission completed its report in 1915, but owing to the outbreak of the First World War, the report was not published until 1917.
- The commission examined several important issues and made a number of recommendations in regard to the Higher Civil Services.
- It suggested that the services were to be reorganised into higher and lower branches on the basis of work and not on the basis of race or salary and that no other artificial distinction should be maintained.
- Excepting the case of ICS, all other civil servants, once promoted from a lower to a higher service, should enjoy equal benefits and should be treated identically with those directly recruited and should be considered as full members of the service.
- The Civil Services were divided into four categories- Imperial, Central, Provincial and Subordinate.
- The existing problems of recruitment to various services from the point of view of place, fixation of salary, and proportion of Indians were examined.

# **Q.4)** Which of the following **milestones** is/are identified by Reserve Bank of India's National Strategy for Financial Inclusion?

- 1. Banking access to every village (or hamlet of 500 households in hilly areas) within a five km radius by March 2020.
- 2. Move towards cash less society by March 2022.
- 3. Every adult has access to a financial service provider through a mobile device by March 2024.

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 Reserve Bank of India (RBI) released the National Strategy for Financial Inclusion 2019-2024 on January 10, 2020.

- It sets forth the vision and objectives of financial inclusion policies in India.
- The strategy was prepared by the RBI with inputs from the central government and financial sector regulators (Securities and Exchange Board of India, Insurance Regulatory and Development Authority of India and Pension Fund Regulatory and Development Authority of India).

RBI identified six strategic objectives of a national strategy for financial inclusion:

- universal access to financial services,
- providing basic bouquet of financial services,
- · access to livelihood and skill development,
- financial literacy and education,

- customer protection and grievance redressal, and
- effective coordination.

To achieve this vision, it identified certain milestones such as:

- providing banking access to every village (or hamlet of 500 households in hilly areas) within a five km radius by March 2020,
- strengthening digital financial services to create infrastructure to move towards a cash less society by March 2022, and
- ensuring that every adult has access to a financial service provider through a mobile device by March 2024.

**Q.5)** Which of the following is/are recommendations of Working Group constituted by the Reserve Bank of India to review **agricultural credit**?

- 1. It recommended that banks should provide crop loans only through Kisan Credit Cards in order to curb the misuse of interest subsidy (Interest subvention scheme).
- 2. It recommended that loan waivers should be avoided.
- 3. It recommended that separate lending targets should be set for allied activities. 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 Working Group constituted by the Reserve Bank of India to review agricultural credit released its report on September 13, 2019.

- It was asked to examine: (i) reach of institutional credit, (ii) ease of credit and inclusiveness, and (iii) impact of loan waivers on state finances and credit discipline. Key observations and recommendations of the Working Group include:
- The Working Group noted that the central and state governments need to increase their capital expenditure which will stimulate the demand for investment credit in agriculture.
- It also recommended that banks should provide crop loans under the scheme only through Kisan Credit Cards in order to curb the misuse of interest subsidy.
- The Working Group recommended that: (i) loan waivers should be avoided, and (ii) the central and state governments should undertake a holistic review of agricultural policies and input subsidies in order to improve the overall viability and sustainability of agriculture.
- The Working Group recommended that separate lending targets should be set for allied activities and banks should not insist on land records for up to two lakh rupees of such credit.
- It recommended the central government to push states to timely complete the process of digitization and updation of land records.
- States having highly restrictive land leasing frameworks should be encouraged to adopt reforms based on the Model Land Leasing Act and the Andhra Pradesh Land Licensed Cultivators' Act, 2011.

**Q.6)** The **Malegam Committee** often seen in news is related to which of the following?

- a) Micro-finance
- b) Priority sector lending
- c) Insurance
- d) Currency convertibility

#### ANS: A

Explanation: The Board of Directors of the Reserve Bank of India formed a Sub-Committee of the Board to study matters and concerns in the microfinance sector insofar as they are related to the entities regulated by the Bank.

- The Sub-Committee was under the chairmanship of Y.H. Malegam.
- The terms of mention of the Sub-Committee included framing the description of 'microfinance' and 'Micro Finance Institutions (MFIs)' for the point of regulation of non-banking finance companies (NBFCs) undertaking microfinance by the Reserve Bank of India and giving proper recommendations.
- Also, the committee had to look at the widespread activities of MFIs in relation to interest rates, lending and recovery measures to identify trends that impose on borrowers' interests.

## Q.7) "A K Mathur Commission", sometimes seen in news is related to which of the following?

- a) Environmental conservation
- b) Pay commission
- c) Financial inclusion
- d) Renewable energy

#### ANS: B

**Explanation:** 7th **Central Pay Commission (CPC) headed by Justice AK Mathur** has recommended 23.55 percent hike in pay and allowances of government employees. In this regard the commission has submitted its report to Union Finance Ministry in New Delhi and the recommended pay revision will come into effect from 1 January 2016.

- **Q.8)** "Global Forum on Environment (GFENV)" is a venue to explore common policy issues focusing principally on the environmental dimension of sustainable development and its linkages with economic and social policies is conducted by which of the following?
- a) OECD
- b) World Economic Forum
- c) United Nations Environmental Programme
- d) World Bank

#### ANS: A

**Explanation:** The Global Forum on Environment (GFENV) is a venue that brings together international experts from member and non-member economies to share experiences and explore common policy issues focusing principally on the environmental dimension of sustainable development and its linkages with economic and social policies.

Issues to be addressed in the Global Forum on Environment are shaped based on the current work of the **OECD** Environment Programme, by focusing on one or two priority issues on the global environmental agenda each year.

- **Q.9)** The "Non-state Actor Zone for Climate Action (NAZCA)" is related to which of the following?
- a) UNFCCC
- b) UNEP
- c) WEF
- d) IPCC

#### ANS: A

**Explanation:** The Global Climate Action portal (NAZCA) is an online platform where actors from around the globe - countries, regions, cities, companies, investors and other organizations - can display their commitments to act on climate change.

Launched by UN Climate Change (UNFCCC), Peru and France in 2014, the portal was born of the realization that addressing climate change will take ambitious, broad-based action from all segments of society, public and private.

## Q.10) The "Race To Zero Campaign" is related to which of the following?

- a) UNEP
- b) UNFCCC
- c) GEF
- d) IPCC

#### ANS: B

**Explanation:** Race To Zero is a global campaign to rally; leadership and support from businesses, cities, regions, investors for a healthy, resilient, zero carbon recovery that prevents future threats, creates decent jobs, and unlocks inclusive, sustainable growth.

- It mobilizes a coalition of leading net zero initiatives, representing 449 cities, 21 regions, 995 businesses, 38 of the biggest investors, and 505 universities.
- These 'real economy' actors join 120 countries in the largest ever alliance committed to achieving net zero carbon emissions by 2050 at the latest.
- Collectively these actors now cover nearly 25% global CO2 emissions and over 50% GDP.
- Led by the High-Level Climate Champions for Climate Action Nigel Topping and Gonzalo Muñoz– Race To Zero mobilizes actors outside of national governments to join the Climate Ambition Alliance, which was launched at the UNSG's Climate Action Summit 2019 by the President of Chile, Sebastián Piñera.
- The objective is to build momentum around the shift to a decarbonized economy ahead of **COP26 (UNFCCC)**, where governments must strengthen their contributions to the Paris Agreement.
- This will send governments a resounding signal that business, cities, regions and investors are united in meeting the Paris goals and creating a more inclusive and resilient economy.