



2022 Prelims Analysis (Set C)

1. Consider the following pairs:

	Site of Ashoka's major rock edicts		Location in the State of
1.	Dhauri	—	Odisha
2.	Erragudi	—	Andhra Pradesh
3.	Jaugada	—	Madhya Pradesh
4.	Kalsi	—	Karnataka

How many pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

Ans: (b)

Explanation:

- **Dhauri is an important early historic urban centre of Orissa.** The archaeological remains found at Dhauri traced back its antiquity to c.3rd century B.C, particularly to the time of Ashoka. Dhauri is of great historical importance as one of the famous Rock Edicts of emperor Ashoka is located here. **Hence, Pair 1 is correctly matched.** <https://magazines.odisha.gov.in/Orissareview/july2006/engpdf/49-53.pdf>
- In 2013, the Archaeological Survey of India (ASI) geared up for protecting the Ashoka **rock edict site near Erragudi** on Gooty-Pathikonda road in **Kurnool district, Andhra Pradesh.** **Hence, Pair 2 is correctly matched.**
 - The inscriptions were one of the important treasures of Mouryan king Ashoka (269-231 BCE) falling under major and minor rock inscriptions. <https://www.thehindu.com/news/national/andhra-pradesh/asi-to-develop-ashoka-rock-site-as-tourist-spot/article4766897.ece>
- **Jaugada** is an ancient fort that served as a Mauryan fortified capital of the Kalinga province. Jaugada is located near the cities of Berhampur and Purushottampur in **Ganjam district of Odisha.**
 - Jaugada is the second place in Odisha where there is a major Ashokan rock edict, also known as Kalinga edict. **Hence, Pair 3 is not correctly matched.** <https://odishatourism.gov.in/content/tourism/en/blog-details.html?url=jaugada-Ashokan-major-rock-edict-in-odisha>
- The Ashoka edict in Kalsi scripted the humane approach after the war when Ashoka imbibed Buddhism. Kalsi lies in the buffer zone between Uttaranchal and Himachal Pradesh. **Hence, Pair 4 is not correctly**

matched. <https://timesofindia.indiatimes.com/travel/uttarakhand/kalsi/ps36300328.cms>

- Therefore, option (b) is correct.

<https://www.drishtijas.com/to-the-points/paper1/mauryan-art-and-architecture-part-1>

2. Consider the following pairs:

	King		Dynasty
1.	Nannuka	—	Chandela
2.	Jayashakti	—	Paramara
3.	Nagabhata II	—	Gurjara-Pratihara
4.	Bhoja	—	Rashtrakuta

How many pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

Ans: (b)

Explanation:

- The Chandela or Chandel was an Indian Rajput clan of Central India. They were popularly termed as Chandelas or Jejakabhukti dynasty in Indian history.
 - As per legends, contained in Mahoba Khanda, Chandela family was descended from the union of Moon (in Hindi called Chandra) and Hemavati.
 - As per A954 CE Khajuraho inscriptions, first king of Chandela dynasty i.e. **Nannuka** was descendant of sage Chandratreya who was son of famous Vedic sage Atri. **Hence, Pair 1 is correctly matched.**

<https://mahoba.nic.in/history/>

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CHANDELA DYNASTY CHRONOLOGY		
RULER	RULING PERIOD	DESCRIPTION
Nanuka	835 - 845 CE	Founder of Chandela dynasty. Ruler of Khajuravatika, fuedatory of Gujara-Pratihara
Vakpati	845 - 865 CE	Ruler of Khajuravatika, fuedatory of Gujara-Pratihara
Jayashakti & Vijayashakti	865 - 885 CE	Ruler of Khajuravatika, fuedatory of Gujara-Pratihara
Rahila	885 - 905 CE	Ruler of Jijakbhukti, fuedatory of Gujara-Pratihara
Shri Harshadev	905 - 925 CE	Ruler of Jijakbhukti, fuedatory of Gujara-Pratihara

- **Jayashakti belonged to the Chandela dynasty and not the Paramara dynasty. Hence, Pair 2 is not correctly matched.**

<https://www.khajuraho-india.org/chandela-dynasty.html>

- Gurjara-Pratihara dynasty, either of two dynasties of medieval Hindu India. The line of Harichandra ruled in Mandor, Marwar (Jodhpur, Rajasthan), during the 6th to 9th centuries CE, generally with feudatory status. The line of Nagabhata ruled first at Ujjain and later at Kannauj during the 8th to 11th centuries. Other Gurjara lines existed, but they did not take the surname Pratihara.
 - In the complicated and badly documented wars of the early 9th century—involving Pratiharas, Rashtrakutas, and Palas—Nagabhata II played an important part.
 - Nagabhata II became the most powerful ruler of northern India and established his new capital at Kannauj. Nagabhata II was succeeded by his son Ramabhadra in about 833. **Hence, Pair 3 is correctly matched.** <https://www.britannica.com/topic/Gurjara-Pratihara-dynasty>
- Mihir Bhoja belonged to the Paramara dynasty. **Hence, Pair 4 is not correctly matched.**

<https://dhar.nic.in/en/bhojshala/>

- **Therefore, option (b) is correct.**

3. Which one of the following statement about Sangam literature in ancient South India is correct?

- (a) Sangam poems are devoid of any reference to material culture.
- (b) The social classification of Varna was known to Sangam poets.
- (c) Sangam poems have no reference to warrior ethic.
- (d) Sangam literature refers to magical forces as irrational.

Ans: (b)

Explanation:

- The corpus of poems known as Sangam literature was produced over six centuries, from around 300 BC to 300 AD, by Tamils from very diverse social backgrounds.
 - These works provide **insight into early Tamil culture and into trade relations (hence, not devoid of material culture)** between South India and the Mediterranean, West Asia and Southeast Asia.
- Sangam writings are possibly unique in early Indian literature, which is almost entirely religious. The poems are concerned with two main topics: those of the **first five collections are on love** (akam), and those of the **next two are on heroism** (puram), including the praise of kings and their deeds.
 - **Many of the poems, especially on heroism (hence, dealing with warrior ethics),** display great freshness and vigour and are singularly free from the literary conceits of much of the other early and medieval literatures of India.
 - Being **bardic literature in praise of heroes and patrons**, its concern with various aspects of society and economy was incidental.

https://en.unesco.org/silkroad/sites/default/files/knowledge-bank-article/sangam_literature_as_a_source_of_evidence_on_indias_trade_with_the.pdf

- Sangam literature **reflects a belief in sacred or magical forces called ananku** that were supposed to inhabit various objects.

https://books.google.co.in/books?id=cvauDwAAOBAJ&pg=PA424&lpg=PA424&dq=SANGAM+POEMS+AND+MAGICAL+FORCES&source=bl&ots=vgeEv_DYo7S&sig=ACfU3U3iYzte1ZkSPrDW9OVZGwDhc6xhAO&hl=en&sa=X&ved=2ahUKEwiMuc6A_pX4AhX4n4OIHToIC0oQ6AF6BAgmeEAM#v=onepage&q=SANGAM%20POEMS%20AND%20MAGICAL%20FORCES&f=false

- "Sangam" literature is not the product of a particular social or religious group nor was it sponsored as a court literature by a ruling elite.

- Composed at various points of time over a long span of about 600 years and **authored by people of various levels-** princes, chieftains, peasants, merchants, potters, smiths, carpenters and brahmanas, Jains and Buddhists, the poems deal with disparate social groups. (**hence, social classification of varna was known**). <https://www.britannica.com/art/shangam-literature>

▪ **Hence, option (b) is correct.**

<https://www.drishtias.com/to-the-points/paper1/sangam-age-1>

4. “Yogavasistha” was translated into Persian by Nizamuddin Panipati during the reign of:

- (a) Akbar
- (b) Humayun
- (c) Shahjahan
- (d) Aurangzeb

Ans: (a)

Explanation:

- Nizamuddin Panipati translated Yoga Vasistha at the request of Jahangir in 1597. This translation was considered as a part of the encyclopedic collection edifying literature initiated by Akbar.
- **Hence, option (a) is correct.**

<https://library.oapen.org/bitstream/id/4018c47c-610c-4597-8692-7dd9c29643a5/translating-wisdom.pdf>

5. The world's second tallest statue in sitting pose of Ramanuja was inaugurated by the Prime Minister of India at Hyderabad recently. Which one of the following statements correctly represents the teachings of Ramanuja?

- (a) The best means of salvation was devotion.
- (b) Vedas are eternal, self-existent and wholly authoritative.
- (c) Logical arguments were essential means for the highest bliss
- (d) Salvation was to be obtained through meditation.

Ans: (a)

Explanation:

- Ramanuja, born in Tamil Nadu in the eleventh century, was deeply influenced by the Alvars. According to him **the best means of attaining salvation was through intense devotion to Vishnu.**
 - Vishnu in His grace helps the devotee to attain the bliss of union with Him.
- He propounded the doctrine of Vishishtadvaita or qualified oneness in that the soul even when united with the Supreme God remained distinct.
 - Ramanuja's doctrine greatly inspired the new strand of bhakti which developed in north India subsequently.
- **Hence, option (a) is correct.**

<https://ncert.nic.in/ncerts//gess108.pdf>

<https://www.drishtias.com/daily-updates/daily-news-analysis/philosopher-saint-ramanujacharya>

6. The Prime Minister recently inaugurated the new Circuit House near Somnath Temple at Veraval. Which of the following statements are correct regarding Somnath Temple?

1. Somnath Temple is one of the Jyotirlinga shrines.
2. A description of Somnath Temple was given by Al-Biruni.
3. Pran Pratishtha of Somnath Temple (installation of the present day temple) was done by President S. Radhakrishnan.

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: (a)

Explanation:

- Somnath temple stands at the shore of the Arabian ocean on the western corner of the Indian subcontinent in Gujarat State.
- Shree Somnath is first among the twelve Aadi Jyotirlingas of India. **Hence, statement 1 is correct.**
- It was **mentioned by the Arab traveller Al-Biruni in his travelogue**, influenced by which Mahmud Ghaznavi attacked the Somnath temple in 1024 with his five thousand soldiers and looted its property and completely destroyed the temple. **Hence, statement 2 is correct.**
- The research based on ancient Indian classical texts show that first Somnath Jyotirling Pran-Pratistha was done on the auspicious third day of the brighter half of Shravan month during the tenth Treta yug of Vaivswat Manvantar.
- The modern temple was reconstructed with the resolve of Sardar Patel who visited the ruins of Somnath temple on November 13 1947. Then President of India, **Dr. Rajendra Prasad, did the Pran-Pratistha** at the existing temple on 11 May 1951. **Hence, statement 3 is NOT correct.**

<https://somnath.org/Home/Somnath-Darshan>

[Somnath temple information \(indiatourismguide.org\)](http://Somnath temple information (indiatourismguide.org))

7. Which one of the following statements best describes the role of B cells and T cells in the human body?

- (a) They protect the body from environmental allergens.
- (b) They alleviate the body's pain and inflammation.
- (c) They act as immunosuppressants in the body.
- (d) They protect the body from the diseases caused by pathogens.

Ans: (d)

Explanation:

- The primary and secondary immune responses are carried out with the help of two special types(T cells) of lymphocytes present in our blood, i.e., B-lymphocytes (B cells) and T lymphocytes .

- The B-lymphocytes produce an army of proteins in response to pathogens into our blood to fight with them. These proteins are called antibodies. The T-cells themselves do not secrete antibodies but help B cells produce them.
- **Hence, option (d) is correct.**

<https://ncert.nic.in/ncerts/l/lebo108.pdf>

<https://www.drishtiias.com/daily-updates/daily-news-analysis/covid-19-specific-memory-t-cells>

8. Consider the following statements:

1. Other than those made by humans, nanoparticles do not exist in nature.
2. Nanoparticles of some metallic oxides are used in the manufacture of some cosmetics.
3. Nanoparticles of some commercial products which enter the environment are unsafe for humans.

Which of the statements given above is/are correct?

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

Ans: (d)

Explanation:

- **Nanoparticles occur naturally in the environment** in large volumes. They exist in the natural world and are also created as a result of human activities. **Hence, statement 1 is NOT correct.**
- The cosmetic industry is attaining the benefits of nanotechnology by developing nanoparticles for the enhanced performance and bioavailability of active components in cosmetics, sunscreens, anti-aging creams, moisturizers, and perfumes. The **cosmetics are formulated by using different types of metal and metal oxide nanoparticles** such as silver nanoparticles (AgNPs), gold nanoparticles (AuNPs) and titanium dioxide nanoparticles (TiO₂ NPs), zinc oxide nanoparticles, (ZnO NPs), iron oxide nanoparticles, (Fe₂O₃ NPs) and carbon-based NPs [16–18].
 - The nanoparticles such as titanium dioxide (TiO₂), zinc oxide (ZnO) are substantially used, since these nanoparticles are non-oily, easily absorbed.
 - TiO₂ is essentially a UV filter (UVA and UVB filter) hence widely used in sunscreens and moisturizers as well. **Hence, statement 2 is correct.**
- Humans have evolved to cope with most naturally occurring nanoparticles. However, some **nanoparticles, generated as a result of certain human activities** such as tobacco smoking and fires, **account for many premature deaths as a result of lung damage. Hence, statement 3 is correct.**

[Nanotechnology in cosmetics pros and cons - IOPscience](#)

[nanoparticle - Nanoparticles in the environment | Britannica](#)

<https://www.drishtiias.com/daily-updates/daily-news-analysis/nanotechnology-and-health#:~:text=Nanosp,onges%20are%20polymer%20nanoparticles%20coated.making%20DNA%20sequencing%20more%20efficient.>

9. Consider the following statements :

DNA Barcoding can be a tool to:

1. assess the age of a plant or animal.
2. distinguish among species that look alike.
3. identify undesirable animal or plant materials in processed foods.

Which of the statements given above is/are correct?

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

Ans: (d)

Explanation:

- The novel technique of **identifying biological specimens using short DNA sequences** from either nuclear or organelle genomes is called DNA barcoding.
- DNA barcoding has many applications in various fields like preserving natural resources, protecting endangered species, controlling agriculture pests, **identifying disease vectors**, monitoring water quality, authentication of natural health products and identification of medicinal plants.
- **Species identification of endangered wildlife (hence, distinguishes among species that look alike)**, quarantine pests, and **disease vectors (identifying undesirable animals/plants)** are just a few areas in which DNA barcoding is enabling researchers, enforcement agents, and consumers to make informed decisions in much shorter time frames.
- Statement 2 and statement 3 are correct, **Hence, option (d) is correct (by elimination).**

<https://www.sciencedirect.com/science/article/abs/pii/S0958166913006721>

<http://pnrsolution.org/Datacenter/Vol3/Issue2/291.pdf>

10. Consider the following:

1. Carbon monoxide
2. Nitrogen oxide
3. Ozone
4. Sulphur dioxide

Excess of which of the above in the environment is/are cause(s) of acid rain?

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

Ans: (b)

Explanation:

- Acid rain is a byproduct of a variety of human activities that emit the oxides of sulphur and nitrogen in the atmosphere. Burning of fossil fuels (which contain sulphur and nitrogenous matter) such as coal and oil in power stations and furnaces or petrol and diesel in motor engines produce sulphur dioxide and nitrogen oxides.
- SO₂ and NO₂ after oxidation and reaction with water are major contributors to acid rain, because polluted air usually contains particulate matter that catalyse the oxidation.
- $2\text{SO}_2(\text{g}) + \text{O}_2(\text{g}) + 2\text{H}_2\text{O}(\text{l}) \rightarrow 2\text{H}_2\text{SO}_4(\text{aq})$
- $4\text{NO}_2(\text{g}) + \text{O}_2(\text{g}) + 2\text{H}_2\text{O}(\text{l}) \rightarrow 4\text{HNO}_3(\text{aq})$
- **Hence, option (b) is correct.**

<https://ncert.nic.in/textbook/pdf/kech207.pdf>

https://www.drishtias.com/daily-updates/daily-news-analysis/sulphur-dioxide-emissions-from-caribbean-volcano/print_manually

11. Consider the following statements:

1. High clouds primarily reflect solar radiation and cool the surface of the Earth.
2. Low clouds have a high absorption of infrared radiation emanating from the Earth's surface and thus cause warming effect.

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 study of clouds, where they occur, and their characteristics, play a key role in the understanding of climate change. Low, thick clouds primarily reflect solar radiation and cool the surface of the Earth. High, thin clouds primarily transmit incoming solar radiation; at the same time, they trap some of the outgoing infrared radiation emitted by the Earth and radiate it back downward, thereby warming the surface of the Earth. Hence, both statements are not correct.

<https://earthobservatory.nasa.gov/features/Clouds>

12. Consider the following statements:

1. Bidibidi is a large refugee settlement in north-western Kenya.
2. Some people who fled from South Sudan civil war live in Bidibidi.
3. Some people who fled from civil war in Somalia live in Dadaab refugee complex in Kenya.

Which of the statements given above is/are correct?

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

(d) 3 only

Ans: (c)

Explanation:

- **Bidibidi Refugee Settlement is a refugee camp in northwestern Uganda. Hence, statement 1 is not correct.**
- With over 270,000 South Sudanese refugees fleeing the ongoing civil war, as of early 2017 Bidibidi was the largest refugee settlement in the world. Hence, statement 2 is correct.

<https://reliefweb.int/report/uganda/ugandas-bidibidi-refugee-settlement-benefit-iom-and-innovation-norways-electronic-waste-management-project>

- **The Dadaab refugee complex in Kenya has refugees and asylum seekers. It consists of three camps. The first camp was established in 1991, when refugees fleeing the civil war in Somalia started to cross the border into Kenya. A second large influx occurred in 2011, when some refugees arrived, fleeing drought and famine in southern Somalia. Hence, statement 3 is correct.**

<https://www.unhcr.org/ke/dadaab-refugee-complex>

13. Consider the following countries:

1. Armenia
2. Azerbaijan
3. Croatia
4. Romania
5. Uzbekistan

Which of the above are members of the Organization of Turkic States?

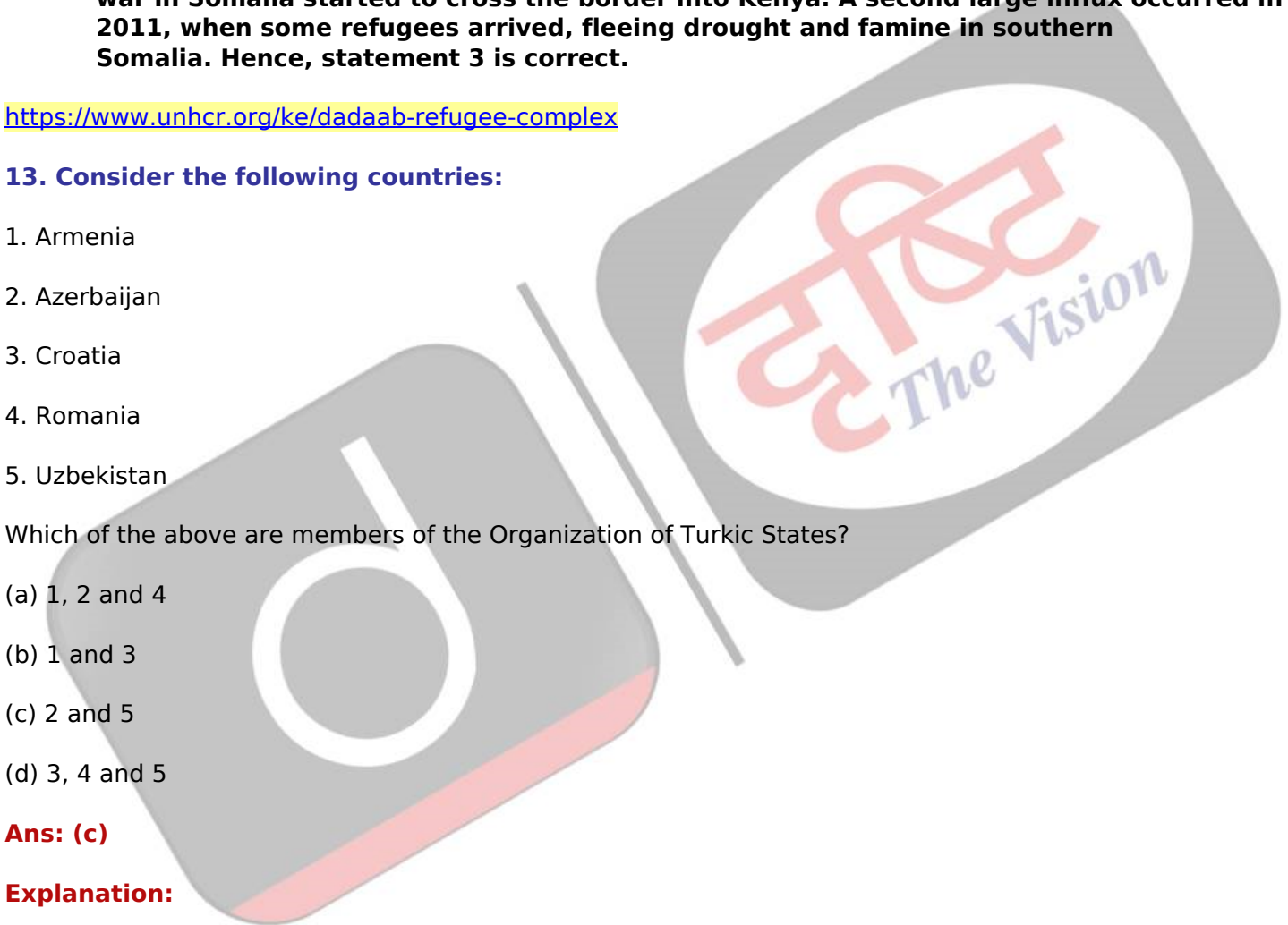
- (a) 1, 2 and 4
- (b) 1 and 3
- (c) 2 and 5
- (d) 3, 4 and 5

Ans: (c)

Explanation:

- Organization of Turkic States (then called the Cooperation Council of Turkic Speaking States - Turkic Council) was established in 2009 as an intergovernmental organization, with the overarching aim of promoting comprehensive cooperation among Turkic States. Its Four founding member states are Azerbaijan, Kazakhstan, Kyrgyzstan and Turkiye. During the 7th Summit held in Baku in October 2019, Uzbekistan joined as full member. Hungary received observer status at the Organization during its 6th Summit in Cholpon-Ata, Kyrgyz Republic in September 2018. And in lately in the 8th Summit held in November 2021, Turkmenistan joined as an Observer Member to the Organization. Armenia, Croatia and Romania are not members of the Organization of Turkic States. **Hence, option (c) is correct.**

<https://www.turkkon.org/en/turk-konseyi-hakkinda>



14. Consider the following statements:

1. Gujarat has the largest solar park in India.
2. Kerala has a fully solar powered International Airport.
3. Goa has the largest floating solar photovoltaic project in India.

Which of the statements given above is/are correct?

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

Ans: (b)

Explanation:

- **India's Bhadla Solar Park is the largest solar power park in the world. Bhadla Solar Park is located in Bhadla, a dry and sandy region in Rajasthan, and spans 14,000 acres. There are over 10 million solar panels at the park, which contribute to an operational capacity of 2245MW. Hence, statement 1 is not correct.**

<https://www.thehindu.com/sci-tech/energy-and-environment/worlds-largest-solar-park-in-bhadla-india/article37462665.ece>

- **Kerala's Cochin International Airport Ltd (CIAL) is the first airport in the world that would be running fully on solar power. The airport officially commissioned a 12 MW solar project in 2015. Hence, statement 2 is correct.**

https://www.icao.int/environmental-protection/Documents/EnvironmentalReports/2016/ENVReport2016_pg177-177.pdf

- **India's biggest floating solar power plant by generation capacity (100MW) is being developed by the National Thermal Power Corporation Limited (NTPC) at Ramagundam in Peddapalli district of Telangana. Hence, statement 3 is not correct.**

<https://www.thehindu.com/news/national/telangana/indias-biggest-floating-solar-plant-to-be-commissioned-in-next-three-months/article34036031.ece>

<https://www.drishtias.com/state-pcs-current-affairs/two-new-solar-parks-in-jaisalmer-and-bikaner>

<https://www.drishtias.com/daily-updates/daily-news-analysis/india-s-biggest-floating-solar-power-plant>

15. With reference to the United Nations Convention on the Law of Sea, consider the following statements:

1. A coastal state has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles, measured from baseline determined in accordance with the convention.
2. Ships of all states, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea.
3. The Exclusive Economic Zone shall not extend beyond 200 nautical miles from the baseline from which the breadth of the territorial sea is measured.

Which of the statements given above are correct?

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

Ans: (d)

Explanation:

- All statements are correct. Under limits of the territorial sea every State has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles, measured from baselines determined in accordance with this Convention. **Hence, statement 1 is correct.**
- Under INNOCENT PASSAGE IN THE TERRITORIAL SEA, Subject to this Convention, ships of all States, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea. **Hence, statement 2 is correct.**
- The exclusive economic zone is an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of this Convention. Under this the exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured. **Hence, statement 3 is correct.**

https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

<https://www.drishtijas.com/daily-updates/daily-news-analysis/unclos-1>

16. Which one of the following statements best reflects the issue with Senkaku Islands, sometimes mentioned in the news?

- (a) It is generally believed that they are artificial islands made by a country around South China Sea.
- (b) China and Japan engage in maritime disputes over these islands in East China Sea.
- (c) A permanent American military base has been set up there to help Taiwan to increase its defence capabilities.
- (d) Though International Court of Justice declared them as no man's land, some South-East Asian countries claim them.

Ans: (b)

Explanation:

- **Senkaku island is not an artificial island but a natural occurring island. It is a group of Eight uninhabited islands. Hence, statement 1 is not correct.**
- The **Senkaku Island dispute** concerns a **territorial dispute** over a group of **uninhabited islands** known between **China** and **Japan**. Both **Japan** and **China** claim ownership of these islands. **Senkaku island lies** in the **East China Sea**. **Hence, statement 2 is correct.**
- The US did not establish the permanent military bases over the senkaku island but joint military exercises have been conducted between the US and Japan Military forces. **Hence, statement 3 is not correct.**
- **International court of justice has not given any verdict like No man's land regarding Senkaku Island. Hence statement 4 is not correct.**

17. Consider the following pairs:

	Country		Important reason for being in the news recently
1.	Chad	—	Setting up of permanent military base by China
2.	Guinea	—	Suspension of Constitution and Government by military
3.	Lebanon	—	Severe and prolonged economic depression
4.	Tunisia	—	Suspension of Parliament by President

How many pairs given above are correctly, matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

Ans: (c)

Explanation:

- Military leaders in Guinea have detained the president and declared the government to be dissolved and the constitution to be suspended.

<https://www.thehindu.com/news/international/soldiers-detain-guineas-president-dissolve-government/article36307866.ece>

Lebanon: Severe and prolonged economic depression:

- Lebanon is an **import-dependent** country. The badly damaged port facility is Lebanon's largest maritime gateway and it will make essential items **expensive** and **threaten food security** in the country.
- Lebanon has already been struggling with a **huge economic meltdown**, with the **rapid devaluation** of the **local currency** and a **volatile exchange rate** on the **black market fueling inflation, shuttering businesses, unemployment and poverty**.
- It had also defaulted on a **Eurobond repayment** in March 2020.

<https://www.drishtias.com/current-affairs-news-analysis-editorials/news-analysis/2020-08-06>

- **Tunisian president has suspended the PM, dissolved Parliament.**

<https://indianexpress.com/article/explained/explained-why-did-the-tunisian-president-suspend-the-prime-minister-and-dissolve-parliament-7438977/>

- **Hence, option C is correct.**

18. Consider the following pairs:

	Country		Region often mentioned in the news
1.	Anatolia	—	Turkey
2.	Amhara	—	Ethiopia
3.	Cabo Delgado	—	Spain
4.	Catalonia	—	Italy

How many pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

Ans: (b)

Explanation:

- **Anatolia - Turkey**
- Amhara - Ethiopia

<https://www.drishtias.com/daily-updates/daily-news-analysis/conflict-in-ethiopia>

- **Cabo delgado - Mozambique**
- Catalonia - Spain

<https://www.drishtias.com/daily-updates/daily-news-analysis/catalonian-unrest>

- **Hence, option B is correct.**

19. With reference to Indian laws about wildlife protection, consider the following statements:

1. Wild animals are the sole property of the government.
2. When a wild animal is declared protected, such animal is entitled for equal protection whether it is found in protected areas or outside.
3. Apprehension of a protected wild animal becoming a danger to human life is sufficient ground for its capture or killing.

Which of the statements given above is/are correct?

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

Ans: (b)

Explanation:

- The Wild Life (Protection) Act, 1972 declares the wild animals as government property only in the context of their protection or if they are being hunted/killed. **Hence, statement 1 is not correct.**

<https://tribal.nic.in/downloads/FRA/Concerned%20Laws%20and%20Policies/Wildlife%20Protection%20Act,%201972.pdf>

<https://www.thehindu.com/news/national/tamil-nadu/madras-hc-dismisses-case-against-transferring-1000-crocodiles-from-chennai-to-gujarat/article65752934.ece>

- **When an animal is declared as a protected animal under Wildlife (Protection) Act (WPA), 1972 then it will enjoy the same protection either if it is present in a protected area or outside of a protected area. Hence, statement 2 is correct.**
- According to Section 11 (1) (a) of Wild Life protection Act, 1972 the Chief WildLife Warden may, if he is satisfied that any wild animal specified in Schedule I has become dangerous to human life or is so disabled or deceased as to be beyond recovery, by order in writing and stating the reasons therefor, permit any person to hunt such animal or cause such animal to be hunted: 1[Provided that no wild animal shall be ordered to be killed unless the Chief WildLife Warden is satisfied that such animal cannot be captured, tranquilised or translocated: Provided further that no such captured animal shall be kept in captivity unless the Chief WildLife Warden is satisfied that such animal cannot be rehabilitated in the wild and the reasons for the same are recorded in writing. Explanation.—For the purposes of clause (a), the process of capture or translocation, as the case may be, of such an animal shall be made in such a manner as to cause minimum trauma to the said animal.]. **Hence statement 3 is not correct.**

https://legislative.gov.in/sites/default/files/A1972-53_0.pdf

<https://www.drishtias.com/to-the-points/paper3/wildlife-protection-act-wpa-1972>

20. Certain species of which one of the following organisms are well known as cultivators of fungi?

- (a) Ant
- (b) Cockroach
- (c) Crab
- (d) Spider

Ans: (a)

Explanation:

- Species of **Ant** is well known as the cultivator of the fungi. Few other insects such as **termites, beetles, and marsh periwinkles** are also able to cultivate fungi.
- **Hence, option A is correct.**

<https://www.sciencedirect.com/science/article/pii/S1367593120301095>

21. In India, which one of the following compiles information on industrial disputes, closures, retrenchments and lay-offs in factories employing workers?

- (a) Central Statistics Office
- (b) Department for Promotion of Industry and Internal Trade
- (c) Labour Bureau
- (d) National Technical Information System Manpower

Ans: (c)

Explanation:

- **Statistics on industrial disputes, closures, retrenchments and lay-offs in India** is an annual publication of the Labour Bureau which is an attached office under the Ministry of Labour and Employment. **Hence, option (c) is correct.**

Labour Bureau:

- Labour Bureau, an attached office under the Ministry of Labour and Employment, was set up on 1st October 1946.
- Labour Bureau collects and publishes statistics and related information on wages, earnings, productivity, absenteeism, labour turnover, industrial relations, working and living conditions and evaluation of working of various labour enactments etc. Besides important economic indicators like Consumer Price Index Numbers for Industrial, Agricultural and Rural Labourers; wage rate indices and data on industrial relations, socio-economic conditions in the organised and unorganised sector of industry etc are also released by the office.

[Labour Bureau - Arthapedia](#)

[ID_Review_2012.pdf \(labourbureaunew.gov.in\)](#)

22. In India, what is the role of the Coal Controller's Organization (CCO)?

1. CCO is the major source of Coal. Statistics in Government of India.
2. It monitors progress of development of Captive Coal/Lignite blocks.
3. It hears any objection to the Government's notification relating to acquisition of coal-bearing areas.
4. It ensures that coal mining companies deliver the coal to end users in the prescribed time.

Select the correct answer using the code given below:

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

Ans: (a)

Explanation:

Coal Controller Organisation:

- Office of Coal Controller (earlier Coal Commissioner), established in 1916, is one of the oldest offices in Indian Coal sector. Main aim behind setting up this office was to have Government control to adequately meet the coal requirement during First World War.

Functions of Coal Controller's Organisation are listed as below:

- Inspection of collieries so as to ensure the correctness of the class, grade or size of coal. To issue directives for the purpose of declaration and maintenance of grades of coal of a seam mined in a colliery.
- Assessment and collection of excise duty levied on all raw coal raised and dispatched.
- **Submission of monthly coal data to different ministries of Central and State Government, national and international organization. Hence, statement 1 is correct.**

- Under Coal Bearing Area (Acquisition and Development) Act, 1957- Coal Controller is the competent authority under this act to hear any objection to the Central Government's Notification relating to acquisition of coal bearing land and to furnish his reports to Central Govt. Hence, Statement 3 is correct.
- The Coal Controller's Organisation monitors progress of development of Captive Coal/Lignite Blocks and their associated end-use projects. **Hence, statement 2 is correct.**
- It does not ensure that coal mining company deliver the coal to end user in prescribed time. **Hence, statement 4 is not correct.**

<http://coalcontroller.gov.in/pages/display/5-functionsresponsibilities#:~:text=Under%20Coal%20Bearing%20Area%20%28Acquisition%20and%20Deve>

<https://coal.gov.in/sites/default/files/2019-11/xchap2.pdf#:~:text=2.5.3The%20Coal%20Controller%E2%80%99s%20Organisation%20also%20discharges%20the%20following.Following%20up%20of%20submissio>

23. If a particular area is brought under the Fifth Schedule of the Constitution of India, which one of the following statements best reflects the consequence of it?

- (a) This would prevent the transfer of land of tribal people to non-tribal people.
- (b) This would create a local self-governing body in that area.
- (c) This would convert that area into a Union Territory.
- (d) The State having such areas would be declared a Special Category State.

Ans: (a)

Explanation:

Land Governance under the fifth Schedule area:

- Governor can make regulations with regard to the:
 - **Prohibition and restriction of transfer of land from and between Scheduled Tribes** - almost every State in the country, and **certainly all States with Scheduled Areas, have enacted legislations relating to prevention/prohibition of land transfer in Scheduled Areas by tribals to non-tribals**, and in some cases, even the transfer of land between **tribals inter-se is restricted. Hence, option (a) is correct.**
 - Regulation of allotment of land to tribals in Scheduled Areas.
 - Regulation of moneylending in Scheduled Areas to tribals.

<https://www.mea.gov.in/Images/pdf1/S5.pdf>

<https://tribal.nic.in/downloads/FRA/5.%20Land%20and%20Governance%20under%20Fifth%20Schedule.pdf>

24. Consider the following statements:

1. The India Sanitation Coalition is a platform to promote sustainable sanitation and is funded by the Government of India and the World Health Organization.
2. The National Institute of Urban Affairs is an apex body of the Ministry of Housing and Urban Affairs in Government of India and provides innovative solutions to address the challenges of Urban 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: (d)

Explanation:

India Sanitation Coalition

- India Sanitation Coalition was formed under the aegis of FICCI.
- The vision of the Coalition is to enable and support an ecosystem for sustainable sanitation through a partnership mode. **Hence statement 1 is not correct.**

National Institute of Urban Affairs

- Established in 1976, the National Institute of Urban Affairs (NIUA) is India's leading **national think tank on urban planning and development.**
- As a hub for the generation and dissemination of cutting-edge research in the urban sector, NIUA seeks to provide innovative solutions to address the challenges of a fast urbanizing India, and pave the way for more inclusive and sustainable cities of the future.
- In 1976, NIUA was appointed as an apex body to support and guide the Government of India in its urban development plans. Since then, it has worked closely with the Ministry of Housing and Urban Affairs, alongside other government and civil sectors, to identify key areas of research, and address the lacunae in urban policy and planning. NIUA is associated with MoHUA but not the apex body of MoHUA. **Hence, Statement 2 is not correct.**

[Who We Are - India Sanitation Coalition](#)

[Sustainable Cities India Program \(drishtiias.com\)](http://drishtiias.com)

25. Which one of the following has been constituted under the Environment (Protection) Act, 1986?

- (a) Central Water Commission
- (b) Central Ground Water Board
- (c) Central Ground Water Authority
- (d) National Water Development Agency

Ans: (c)

Explanation:

- **Central Ground Water Authority** has been constituted under Section 3 (3) of the Environment (Protection) Act, 1986 to regulate and control the development and management of groundwater resources in the country. **Hence, option (c) is correct.**

Powers & Functions:

The Authority has been conferred with the following powers:

- Exercise of powers under section 5 of the Environment (Protection) Act, 1986 for issuing directions and taking such measures in respect of all the matters referred to in sub-section(2) of section 3 of the said Act.
- To resort to penal provisions contained in sections 15 to 21 of the said Act.
- To regulate and control, management and development of groundwater in the country and to issue necessary regulatory directions for the purpose.
- Exercise of powers under section 4 of the Environment (Protection) Act, 1986 for the appointment of officers.

[INDEX \(cgwb.gov.in\)](http://cgwb.gov.in)

26. With reference to the "United Nations Credentials Committee", consider the following statements:

1. It is a committee set up by the UN Security Council and works under its supervision.
2. It traditionally meets in March, June and September every year.
3. It assesses the credentials of all UN members before submitting a report to the General Assembly for approval.

Which of the statements given above is/are correct?

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

Ans: (a)

Explanation:

- A Credentials Committee is **appointed at the beginning of each regular session of the United Nations General Assembly(UNGA)**.
- It consists of nine members, who are **appointed by the General Assembly** on the proposal of the UNGA President. **Hence, statement 1 is not correct.**
- The Committee **reports to the Assembly** on the credentials of representatives
- The credentials of representatives and the names of members of the delegation of each Member State are submitted to the Secretary-General and are issued either by the Head of the State or Government or by the Minister for Foreign Affairs
- The Committee is **mandated to examine the credentials of representatives of Member States and to report to the General Assembly thereon. Hence, statement 3 is correct.**
- Usually, the committee **meets in November**, brings the report to the General Assembly in December. **Hence, statement 2 is not correct.**

<https://www.un.org/en/ga/credentials/credentials.shtml>

<https://theprint.in/world/un-credentials-committee-that-will-review-taliban-nomination-likely-to-meet-in-november/744076/>

27. Which one of the following statements best describes the 'Polar Code'?

- (a) It is the international code of safety for ships operating in polar waters.
- (b) It is the agreement of the countries around the North Pole regarding the demarcation of their territories in the polar region.

(c) It is a set of norms to be followed by the countries whose scientists undertake research studies in the North Pole and South Pole.

(d) It is a trade and security agreement of the member countries of the Arctic Council.

Ans: (a)

Explanation:

- IMO's International Code for Ships Operating in Polar Waters (**Polar Code**) is mandatory under both the International Convention for the Safety of Life at Sea (**SOLAS**) and the International Convention for the Prevention of Pollution from Ships (**MARPOL**). The Polar Code covers the full range of design, construction, equipment, operational, training, search and rescue and environmental protection matters relevant to ships **operating in the inhospitable waters surrounding the two poles. Hence, option(a) is correct.**
- The Polar Code entered into force on 1 January 2017.

<https://www.imo.org/en/OurWork/Safety/Pages/polar-code.aspx>

28. With reference to the United Nations General Assembly, consider the following statements:

1. The UN General Assembly can grant observer status to the non-member States.
2. Inter-governmental organisations can seek observer status in the UN General Assembly.
3. Permanent Observers in the UN General Assembly can maintain missions at the UN headquarters.

Which of the statements given above are correct?

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

Ans: (d)

Explanation:

- Non-Member States of the United Nations, which are members of one or more specialized agencies, can apply for the status of Permanent Observer.
- The United Nations General Assembly **may grant non-member states, international organizations and other entities** Permanent Observer Status. **Hence, statement 1 and 2 are correct.**
- The **status of a Permanent Observer is based purely on practice, and there are no provisions for it in the United Nations Charter.**
- The **practice dates from 1946**, when the Secretary-General accepted the designation of the Swiss Government as a Permanent Observer to the United Nations.
- Observers were subsequently put forward by certain States that later became United Nations Members, including Austria, Finland, Italy, and Japan. Switzerland became a UN Member on September 10, 2002.
- Permanent Observers have free access to most meetings and relevant documentation.
- Many regional and international organizations are also observers in the work and annual sessions of the General Assembly.
- Permanent Observers may participate in the sessions and workings of the General Assembly and **maintain missions at the UN Headquarters. Hence, statement 3 is correct.**

29. With reference to the "Tea Board" in India, consider the following statements:

1. The Tea Board is a statutory body.
2. It is a regulatory body attached to the Ministry of Agriculture and Farmers Welfare.
3. The Tea Board's Head Office is situated in Bengaluru.
4. The Board has overseas offices at Dubai and Moscow.

Which of the statements given above are correct?

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

Ans: (d)

Explanation:

- Tea Board is functioning as a **statutory body** of the Central Government. **Hence, statement 1 is correct.**
- It comes under the **Ministry of Commerce. Hence, statement 2 is not correct**
- The Board is constituted of 31 members (including Chairman) drawn from Members of Parliament, tea producers, tea traders, tea brokers, consumers, and representatives of Governments from the principal tea producing states, and trade unions. The Board is reconstituted every three years.
- **Foreign Offices:** Currently Tea Board has two overseas offices located at **Dubai, and Moscow**. All these foreign offices of the Board are designed to undertake the various promotional measures to boost up export of Indian tea. These offices also act as a liaison office for interaction between importers of Indian tea of the respective regions as well as Indian Exporters. **Hence, statement 4 is correct.**
- Its headquarters is situated in **Kolkata. Hence, statement 3 is not correct.**

<https://www.teaboard.gov.in/TEABOARDCSM/NA==>

30. Which one of the following best describes the term "greenwashing"?

- (a) Conveying a false impression that a company's products are eco-friendly and environmentally sound.
- (b) Non-inclusion of ecological/ environmental costs in the Annual Financial Statements of a country.
- (c) Ignoring the disastrous ecological consequences while undertaking infrastructure development.
- (d) Making mandatory provisions for environmental costs in a government project/programme.

Ans: (a)

Explanation:

- **Greenwashing** is the practice of making an **unsubstantiated or misleading claim** about the environmental benefits of a product, service, technology or company practice. Greenwashing can make a company appear to be more environmentally friendly than it really is. **Hence, option(a) is correct.**

31. Consider the following statements:

1. Tight monetary policy of US Federal Reserve could lead to capital flight.
2. Capital flight may increase the interest cost of firms with existing External Commercial Borrowings (ECBs).
3. Devaluation of domestic currency decreases the currency risk associated with ECBS.

Which of the statements given above are correct?

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

Ans: D

Explanation:

- Tight Monetary Policy implies raising of short term interest rate by the Federal/Reserve Bank of a country. A tight monetary policy by the US Federal Reserve leads investors to pull money out of emerging markets, including India. **Hence, statement 1 is correct.**
- Depreciation of the domestic currency leads to an increase in the value of foreign currency debts in domestic currency terms. Thus, devaluation **increases** the currency risk associated with ECBS. **Hence, statement 3 is not correct.**

32. Consider the following States:

1. Andhra Pradesh
2. Kerala
3. Himachal Pradesh
4. Tripura

How many of the above are generally known as tea-producing States?

- (a) Only one State
- (b) Only two States
- (c) Only three States
- (d) All four States

Ans: (d)

Explanation:

- Tea is processed within the tea garden to restore its freshness. Major tea producing states are Assam, hills of Darjeeling and Jalpaiguri districts, West Bengal, Tamil Nadu and Kerala. Apart from

these, Himachal Pradesh, Uttarakhand, Meghalaya, Andhra Pradesh and Tripura are also tea-producing states in the country.

<https://ncert.nic.in/textbook/pdf/jess104.pdf>

33. Consider the following statements:

1. In India, credit rating agencies are regulated by Reserve Bank of India.
2. The rating agency popularly known as ICRA is a public limited company.
3. Brickwork Ratings is an Indian credit rating agency.

Which of the statements given above are correct?

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

Ans: (b)

Explanation:

- All the credit rating agencies in India are regulated by SEBI (Credit Rating Agencies) Regulations, 1999 of the Securities and Exchange Board of India Act, 1992. **Hence, Statement (1) is not correct.**
- ICRA Limited (formerly Investment Information and Credit Rating Agency of India Limited) was set up in 1991 by leading financial/investment institutions, commercial banks and financial services companies as an independent and professional investment Information and Credit Rating Agency.
- Today, ICRA and its subsidiaries together form the ICRA Group of Companies (Group ICRA). ICRA is a Public Limited Company, with its shares listed on the Bombay Stock Exchange and the National Stock Exchange. **Hence, Statement (2) is correct**
- Brickwork Ratings, a SEBI registered Credit Rating Agency, has also been accredited by RBI. **Hence, Statement (3) correct.**

Hence, Option (b) is correct.

34. With reference to the 'Banks Board Bureau (BBB)', which of the following statements are correct?

1. The Governor of RBI is the Chairman of BBB.
2. BBB recommends for the selection of heads for Public Sector Banks.
3. BBB helps the Public Sector Banks in developing strategies and capital raising plans.

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:

- The Banks Board Bureau (BBB) has its genesis in the recommendations of **'The Committee to Review Governance of Boards of Banks in India, May 2014 (Chairman - P. J. Nayak)'**.
- **Formation:** The government, in 2016, approved the constitution of the BBB as a body of eminent professionals and officials to **make recommendations for appointment of whole-time directors as well as non-executive chairpersons of Public Sector Banks (PSBs) and state-owned financial institutions.**
 - It is an **autonomous recommendatory body.**
 - **Banks Board Bureau comprises the Chairman, three ex-officio members i.e Secretary, Department of Public Enterprises, Secretary of the Department of Financial Services and Deputy Governor of the Reserve Bank of India, and five expert members, two of which are from the private sector.**
 - **The chairman of Banks Board Bureau is appointed by The Appointments Committee of the Cabinet**
- Banks Board Bureau helps the Public Sector Banks in developing strategies and Capital raising

Hence, Option (b) is correct.

<https://banksboardbureau.org.in/bureau-profile/>

35. With reference to Convertible Bonds, consider the following statements:

1. As there is an option to exchange the bond for equity, Convertible Bonds pay a lower rate of interest.
2. The option to convert to equity affords the bondholder a degree of indexation to rising consumer prices.

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 convertible bond is a **fixed-income corporate debt security that yields interest payments, but can be converted into a predetermined number of common stock or equity shares.**
- Companies issue convertible bonds to lower the coupon rate (lower interest rate) on debt and to delay dilution. **Hence, statement 1 is correct**
- They may be more attractive to investors since convertible bonds provide growth potential through future capital appreciation of the stock price. So investors will be benefited due to rising consumer prices. **Hence, statement 2 is correct.**
- **Convertible bonds typically carry lower interest rates payments than straight corporate bonds**—the savings in interest expense can be significant.
- **Investors** accept the lower interest payments because the conversion option offers the **opportunity to benefit from increases in the stock price.**

<https://www.forbes.com/advisor/investing/convertible-bonds/>

36. Consider the following:

1. Asian Infrastructure Investment Bank
2. Missile Technology Control Regime
3. Shanghai Cooperation Organisation

India is a member of which of the above?

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

Ans: (d)

Explanation:

- MTCR is an informal and voluntary partnership among 35 countries to prevent the proliferation of missile and unmanned aerial vehicle technology capable of carrying greater than 500 kg payload for more than 300 km.
 - **India was inducted into the Missile Technology Control Regime in 2016 as the 35th member.**

[https://www.drishtias.com/to-the-points/Paper2/multilateral-export-control-regimes#:~:text=Nuclear%20Supplier%20Group.-,Missile%20Technology%20Control%20Regime%20\(MTCR\),for%20more%20than%20300%20km](https://www.drishtias.com/to-the-points/Paper2/multilateral-export-control-regimes#:~:text=Nuclear%20Supplier%20Group.-,Missile%20Technology%20Control%20Regime%20(MTCR),for%20more%20than%20300%20km)

- AIIB is a **multilateral development bank** with a mission to improve social and economic outcomes in Asia. Membership in the AIIB is **open to all members of the World Bank** or the **Asian Development Bank** and is divided into **regional** and **non-regional** members.
 - **India** is the second-largest shareholder, contributing **USD 8.4 billion**.

<https://www.drishtias.com/important-institutions/drishti-specials-important-institutions-international-institution/asian-infrastructure-investment-bank>

- SCO is a permanent intergovernmental international organisation. It's a Eurasian political, economic and military organisation aiming to maintain peace, security and stability in the region.
 - India and Pakistan joined SCO as full member on **9 June 2017**.

<https://www.drishtias.com/important-institutions/drishti-specials-important-institutions-international-institution/important-international-institutions-shanghai-cooperation-organisation-sco>

Hence, option (d) is correct.

37. Consider the following statements:

1. Vietnam has been one of the fastest growing economies in the world in the recent years.
2. Vietnam is led by a multi-party political system.
3. Vietnam's economic growth is linked to its integration with global supply chains and focus on exports.
4. For a long time Vietnam's low labour costs and stable exchange rates have attracted global manufacturers.
5. Vietnam has the most productive e-service sector in the Indo-Pacific region.

Which of the statements given above are correct?

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

Ans: (c)

Explanation:

- Vietnam is a **one-party state**, dominated for decades by the ruling Communist Party of Vietnam (CPV). **Hence, statement 2 is not correct**
- According to the '<https://statisticstimes.com>' in **2020 and 2021** Vietnam has **growth rate rank 15 and 38 respectively**. **Hence, statement 1 is correct.**
- The manufacturing industry is driven by several key factors. Firstly, Vietnam is touted as a low-cost manufacturer with competitive labor costs. On average, Vietnam's labor costs are half as much as China's labor costs.
- **Since 2010, Vietnam's currency has appreciated, and since 2015, the government has kept the Vietnamese dong (VND) stable in real terms against the dollar. Hence, statement 4 is correct.**
- According to the International Monetary Fund (IMF), "Despite COVID-19, Vietnam's economy has remained resilient". In 2020, it expanded by 2.9% and growth is projected to be 6.5% in 2021. It is one of the fastest growing economies in Asia; it has managed to pick up most of the business lost by China in the ongoing trade war with the US, whilst still establishing solid relationships with both nations. Vietnam's economy will continue to grow and the country will play a key role in the global **supply chain**. **Hence, statement 3 is correct.**

38. In India, which one of the following is responsible for maintaining price stability by controlling inflation?

- (a) Department of Consumer Affairs
- (b) Expenditure Management Commission
- (c) Financial Stability and Development Council
- (d) Reserve Bank of India

Ans: (d)

Explanation:

The primary objective of **monetary policy is to maintain price stability** while keeping in mind the objective of growth. Price stability is a necessary precondition to sustainable growth.

- The **Reserve Bank of India (RBI) is vested with the responsibility of conducting monetary policy**. This responsibility is explicitly mandated under the Reserve Bank of India Act, 1934.
- In May 2016, the Reserve Bank of India (RBI) Act, 1934 was amended to provide a statutory basis for the implementation of the flexible inflation targeting framework.

Hence, option (d) is correct.

<https://www.drishtiias.com/daily-updates/daily-news-analysis/monetary-policy-committee-rbi>

https://www.rbi.org.in/scripts/FS_Overview.aspx?fn=2752

39. With reference to Non-Fungible Token (NFTs), consider the following statements:

1. They enable the digital representation of physical assets.
2. They are unique cryptographic tokens that exist on a blockchain.
3. They can be traded or exchanged at equivalency and therefore can be used as a medium of commercial transactions.

Which of the statements given above are correct?

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

Ans: (a)

Explanation:

- **Anything that can be converted into a digital form can be an NFT.**
- Everything from drawings, photos, videos, GIFs, music, in-game items, selfies, and even a tweet can be turned into an NFT, which can then be traded online using cryptocurrency.
- If anyone converts its digital asset to an NFT, he/she will get proof of ownership, **powered by Blockchain.**

Hence, statement 1 and 2 are correct.

- NFTs are non-fungible, which means the value of one NFT is not equal to another.
- **Nonfungible means NFTs aren't mutually interchangeable. Every art is different from others, making it non-fungible, and unique.**

Hence, statement 3 is not correct.

<https://www.drishtias.com/daily-updates/daily-news-analysis/non-fungible-tokens>

40. Consider the following pairs:

	Reservoirs		States
1.	Ghataprabha	—	Telangana
2.	Gandhi Sagar	—	Madhya Pradesh
3.	Indira Sagar	—	Andhra Pradesh
4.	Maithon	—	Chhattisgarh

How many pairs given above are **not** correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

Ans: (c)

Explanation:

Ghataprabha has a hydroelectric and irrigational dam at Hidkal.

- Hidkal Dam is located in Belagavi district in Karnataka. The dam was completed in 1977. To make it multipurpose project a reservoir was also constructed on the dam.
- Gandhi Sagar Dam on Chambal River (Madhya Pradesh) is one of the five water reservoirs of national importance.
- Indira Sagar (Polavaram) project is located on river Godavari near Ramayyapet village of Polavaram Mandal of West Godavari district in Andhra Pradesh.
 - However, the Indira Sagar given in question lies in Madhya Pradesh as the Indira Sagar of Andhra Pradesh will include Polavaram in its name.
- The Maithon Dam is located about 48 kms from the Coal City of Dhanbad (Jharkhand)

	Reservoirs	States
1.	Ghataprabha	Karnataka
2.	Gandhi Sagar	Madhya Pradesh
3.	Indira Sagar	Madhya Pradesh
4.	Maithon	Jharkhand

Hence, Option (c) is correct

<https://www.drishtias.com/daily-updates/daily-news-analysis/ghataprabha-river>

<https://www.drishtias.com/daily-updates/daily-news-analysis/state-of-india-s-dams>

41. In the Government of India Act 1919, the functions of Provincial Government were divided into "Reserved" and "Transferred" subjects. Which of the following were treated as "Reserved" subjects?

1. Administration of Justice
2. Local Self-Government
3. Land Revenue
4. Police

Select the correct answer using the code given below:

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

Ans: (c)

Explanation:

- As per Government of India Act, 1919 the Subjects were divided into two lists: “reserved” which included subjects such as law and order, finance, land revenue, irrigation, etc., and “transferred” subjects such as education, health, local government, industry, agriculture, excise, etc.
- **Hence, option (c) is correct.**

42. In medieval India, the term "Fanam" referred to:

- (a) Clothing
- (b) Coins
- (c) Ornaments
- (d) Weapons

Ans: (b)

Explanation:

- The Fanam and Chuckram coins were the regular unit of currency in medieval Travancore and were extensively used for trading.
- **Hence, option (b) is correct.**

43. Consider the following freedom fighters:

1. Barindra Kumar Ghosh
2. Jogesh Chandra Chatterjee
3. Rash Behari Bose

Who of the above was/were actively associated with the Ghadar Party?

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

Ans: (d)

Explanation:

- Barindra Kumar Ghosh (Barindra Ghose) was a founding member of Jugantar, a Bengali revolutionary movement. He is not associated with Ghadar Party.
- Jogesh Chandra became a member of the Anushilan Samiti. He was one of the founder members of Hindustan Republican Association (HRA) (in 1924). He is not associated with Ghadar Party.
- Rash Behari Bose was an Indian revolutionary leader against the British Raj. He was one of the key organisers of the Ghadar Mutiny.

Hence, option (d) is correct.

44. With reference to the proposals of Cripps Mission, consider the following statements:

1. The Constituent Assembly would have members nominated by the Provincial Assemblies as well as the Princely States.

2. Any Province, which is not prepared to accept the new Constitution would have the right to sign a separate agreement with Britain regarding its future status.

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:

- As per Cripps Mission, a Constituent Assembly would be formed to frame a new constitution for the country. This Assembly would have members elected by the provincial assemblies and also nominated by the princes. **Hence, statement 1 is not correct.**
- Also, the mission proposed that any province unwilling to join the Indian dominion could form a separate union and have a separate constitution. **Hence statement 2 is correct.**

<https://www.drishtias.com/hindi/mains-practice-question/question-164>

45. With reference to Indian history, consider the following texts:

1. Nettipakarana
2. Parishishtaparvan
3. Avadanashataka
4. Trishashtilakshana Mahapurana

Which of the above are Jaina texts?

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

Ans: (b)

Explanation:

- The Nettipakarana is a mythological Buddhist scripture, sometimes included in the Khuddaka Nikaya of Theravada Buddhism's Pali Canon.
- Parishishtaparvan is a 12th-century Sanskrit mahakavya by Hemachandra which details the histories of the earliest Jain teachers.
- Avadanashataka is an anthology in Sanskrit of one hundred Buddhist legends, approximately dating to the same time.
- Trishashtilakshana Mahapurana is a major Jain text composed largely by Acharya Jinasena during the rule of Rashtrakuta.
- **Hence, option (b) is correct.**

46. With reference to Indian history, consider the following pairs:

	Historical person		Known as
1.	Aryadeva	—	Jaina scholar
2.	Dignaga	—	Buddhist scholar
3.	Nathamuni	—	Vaishnava scholar

How many pairs given above are correctly matched?

- (a) None of the pairs
- (b) Only one pair
- (c) Only two pairs
- (d) All three pairs

Ans: (c)

Explanation:

- Aryadeva was a Mahayana Buddhist monk, a disciple of Nagarjuna and a Madhyamaka philosopher. Dignaga was an Indian Buddhist scholar and one of the Buddhist founders of Indian logic. Sri Ranganathamuni, popularly known as Sriman Nathamuni (823 CE–951 CE), was a Vaishnava theologian who collected and compiled the Nalayira Divya Prabandham. **Hence, only pairs 2 and 3 are correctly matched. First pair is not correctly matched.**

47. With reference to Indian history, consider the following statements:

1. The first Mongol invasion of India happened during the reign of Jalal-ud-din Khalji.
2. During the reign of Ala-ud-din Khalji, one Mongol assault marched up to Delhi and besieged the city.
3. Muhammad-bin-Tughlaq temporarily lost portions of north-west of his kingdom to Mongols.

Which of the statements given above is/are correct?

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

Ans: (b)

Explanation:

- Between 1240-66, the Mongols for the first time embarked upon the policy of annexation of India and the golden phase of mutual 'non-aggression pact with Delhi ended. In 1241, the Mongols under Tair Bahadur invaded Lahore and completely destroyed the city. **Hence statement 1 is not correct.**
- In 1299, Mongols invaded India, headed by Outlugh Khan (Outlugh Khwaja), the son of the Mongol ruler, Dawa Khan. This was an attempt by the Mongols to ravage Delhi for the first time. Hearing of their approach, Alauddin quickly gathered an army, and took a position outside Siri. The Mongols entrenched themselves at Killi, six miles north of Delhi. **Hence, statement 2 is correct.**
- The last significant Mongol invasion was under the leadership of Tarmashirin during the reign of

Sultan Muhammad Tughluq. Ghiyasuddin Tughlaq marched against Tarmashirin, and pushed him back across the Indus and Indus which remained the frontier with the Mongols. **Hence statement 3 is not correct.**

48. With reference to Indian history, who of the following were known as "Kulah-Daran"?

- (a) Arab merchants
- (b) Qalandars
- (c) Persian calligraphists
- (d) Sayyids

Ans: (d)

Explanation:

- The Sayyids claimed descent from the Prophet through his daughter Fatima. They commanded special respect in Muslim society. Even Timur protected the lives of Sayyids during his invasion of India although his policy was one of general slaughter. A Sayyid accused of misappropriating state revenue was discharged by Sikandar Lodi and was allowed to keep to himself his dishonest gains. The Sayyids put on a pointed cap (Kulah) and they were known as Kulah-Daran.
- **Hence, option (d) is correct.**

49. With reference to Indian history, consider the following statements:

1. The Dutch established their factories/warehouses on the east coast on lands granted to them by Gajapati rulers.
2. Alfonso de Albuquerque captured Goa from the Bijapur Sultanate.
3. The English East India Company established a factory at Madras on a plot of land leased from a representative of the Vijayanagara empire.

Which of the statements given above are correct?

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

Ans: (b)

Explanation:

- In Orissa the Ganga dynasty was succeeded by another glorious dynasty known as the Suryavamsi Gajapatis. The last ruler Kaxharua Deva was killed by Govinda Vidyadhara in 1541, who founded the Bhoi dynasty. **Hence statement 1 is not correct.**
- Alfonso de Albuquerque had 23 warships and about 1000 soldiers. In January 1510 he attacked Goa. At that time the power of Goa was in the hands of the ruler of Bijapur, who was busy in suppressing the rebellion in his own state. Taking advantage of the opportunity, Alfonso de Albuquerque captured Goa. **Hence statement 2 is correct.**
- In 1611 AD, the British established their first factory in South India at Machilipatnam, but soon the main center of activities shifted to Madras. Francis Day leased Madras in 1639 from Chandragiri, the representative of the Vijayanagara Empire. He built a fortified kothi there, which was named

'Fort St George'. **Hence statement 3 is correct.**

50. According to Kautilya's Arthashastra, which of the following are correct?

1. A person could be a slave as a result of a judicial punishment.
2. If a female slave bore her master a son, she was legally free.
3. If a son born to a female slave was fathered by her master, the son was entitled to the legal status of the master's son.

Which of the statements given above are correct?

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

Ans: (d)

Explanation:

- In India the earliest reference to slavery as a result of judicial punishment is found in the Buddhist Jataka stories. In the kulavaka jataka, we are told that a village superintendent was made a slave as a result of judicial punishment. Kautilya also mentions such slaves (dandapranita). **Hence, statement 1 is correct.**
- According to Kautilya, if a master begets a child by a female slave, both the child and the mother become free. **Hence, statement 2 is correct.**
- If a son born to a female slave was fathered by her master, the son was entitled to the legal status of the master's son. **Hence, statement 3 is correct.**

<https://ijsw.tiss.edu/greenstone/collect/ijsw/index/assoc/HASHd1b2.dir/doc.pdf>

51. "Climate Action Tracker" which monitors the emission reduction pledges of different countries is a :

- (a) Database created by coalition of research organisations
- (b) Wing of "International Panel of Climate Change"
- (c) Committee under "United Nations Framework Convention on Climate Change"
- (d) Agency promoted and financed by United Nations Environment Programme and World Bank

Ans: (a)

Explanation:

- The Climate Action Tracker (CAT) is an independent scientific analysis that tracks government climate action and measures it against the Paris Agreement. CAT quantifies and evaluates climate change mitigation targets, policies and action.
- It also aggregates country action to the global level, determining likely temperature increases during the 21st century using the [MAGICC climate model](#). By collaboration of two organisations, Climate Analytics and New Climate Institute, the CAT provides independent analysis to policymakers.
- **Hence, option (a) is correct.**

52. Consider the following statements:

1. "The Climate Group" is an international non-profit organization that drives climate action by building large networks and runs them.
2. The International Energy Agency in partnership with the Climate Group launched a global initiative "EP100".
3. EP100 brings together leading companies committed to driving innovation in energy efficiency and increasing competitiveness while delivering on emission reduction goals.
4. Some Indian companies are members of EP100.
5. The International Energy Agency is the Secretariat to the 'Under2 Coalition'.

Which of the statements given above are correct?

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

Ans: (b)

Explanation:

- The Climate Group is an international non-profit organization founded in 2003, which powers large networks, drive climate action fast.
- EP100 is a global initiative led by the Climate Group, bringing together over 120 energy smart businesses committed to measuring and reporting on energy efficiency improvements.
- By optimizing the energy use of their processes, products and buildings, EP100 companies are making the most of every unit of energy they consume- reducing overheads, increasing competitiveness and avoiding carbon emissions.
- Some Indian companies like - Swaraj Engins Ltd, Mahindra and Mahindra etc are members of EP100.
- Under2 Coalition is the largest global network of state and regional governments committed to reducing emissions in line with the Paris Agreement. Climate Group is the Secretariat to the Under2 Coalition.

Hence, option (b) is correct.

The Climate Group Website

53. "If rainforests and tropical forests are the lungs of the Earth, then surely wetlands function as its kidneys." Which one of the following functions of wetlands best reflects the above statement?

- (a) The water cycle in wetlands involves surface runoff subsoil percolation and evaporation.
- (b) Algae form the nutrient base upon which fish, crustaceans, molluscs, birds, reptiles and mammals thrive.
- (c) Wetlands play vital role in maintaining sedimentation balance and soil stabilization.

(d) Aquatic plants absorb heavy metals and excess nutrients.

Ans: (d)

Explanation:

- Wetland ecosystems are rich in biodiversity and support an astonishing variety and number of life forms, making them uniquely productive. Wetlands start by playing a crucial role in the water cycle, the nutrient cycle and the carbon cycle. The nutrient cycle, in turn, influences water quality, and the carbon cycle influences vegetative land cover and carbon sequestration in soils.
- Most freshwater wetlands are rich in aquatic plants. Some aquatic plants can also absorb carbon under certain conditions and become peat. **These plants are also capable of absorbing pollutants such as heavy metals and cleansing the water system.** They absorb excess nutrients and contribute to achieving a vital balance in the system through the processes of denitrification and detoxification and oxygenation of water. **If rainforests and tropical forests are the lungs of the earth, then surely wetlands function as its kidneys.**
- Hence, option (d) is correct.

<https://frontline.thehindu.com/environment/wetlands-in-peril/article8017664.ece>

54. In the context of WHO Air Quality Guidelines, consider the following statements:

1. The 24-hour mean of $PM_{2.5}$ should not exceed $15 \mu g/m^3$ and annual mean of $PM_{2.5}$ should not exceed $5 \mu g/m^3$.
2. In a year, the highest levels of ozone pollution occur during the periods of inclement weather.
3. PM_{10} can penetrate the lung barrier and enter the bloodstream.
4. Excessive ozone in the air can trigger asthma.

Which of the statements given above are correct?

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

Ans: (b)

Explanation:

- According to the WHO Air Quality Guidelines the 24-hour mean of $PM_{2.5}$ should not exceed $15 \mu g/m^3$ and annual mean of $PM_{2.5}$ should not exceed $5 \mu g/m^3$.
- PM_{10} can penetrate and lodge deep inside the lungs, while $PM_{2.5}$ can penetrate the lung barrier and enter the blood system.
- Ozone at ground level is one of the major constituents of photochemical smog. The highest levels of ozone pollution occur during periods of **sunny weather**.
- Excessive ozone in the air can have a marked effect on human health. It can cause breathing problems, trigger asthma, and cause lung diseases.

Hence, option (b) is correct.

WHO

55. With reference to "Gucchi" sometimes mentioned in the news, consider the following

statements:

1. It is a fungus.
2. It grows in some Himalayan forest areas.
3. It is commercially cultivated in the Himalayan foothills of north-eastern India.

Which of the statements given above is/are correct?

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

Ans: (c)

Explanation:

- Guchhi mushroom is a species of fungus in the family Morchellaceae of the Ascomycota. They are pale yellow in colour. This cannot be cultivated commercially and grown in the foothills in Himachal Pradesh, Uttaranchal, and Jammu and Kashmir.
- **Hence, option (c) is correct.**

The Indian Express

56. With reference to polyethylene terephthalate, the use of which is so widespread in our daily lives, consider the following statements:

1. Its fibres can be blended with wool and cotton fibres to reinforce their properties.
2. Containers made of it can be used to store any alcoholic beverage.
3. Bottles made of it can be recycled into other products.
4. Articles made of it can be easily disposed of by incineration without causing greenhouse gas emissions.

Which of the statements given above are correct?

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

Ans: (a)

Explanation:

- Polyethylene terephthalate (PET or PETE), a strong, stiff synthetic fibre and resin and a member of the polyester family of polymers. PET is spun into fibres for permanent-press fabrics and blow-molded into disposable beverage bottles.
- They are often used in durable-press blends with other fibres such as rayon, wool, and cotton, reinforcing the inherent properties of those fibres while contributing to the ability of the fabric to

recover from wrinkling.

- PET is the most widely recycled plastic PET bottles and containers are commonly melted down and spun into fibres for fibrefill or carpets. PET can be recycled into its original uses, and methods have been devised for breaking the polymer down into its chemical precursors for resynthesizing into PET.

Hence, option (a) is correct.

57. Which of the following is *not* a bird?

- (a) Golden Mahseer
- (b) Indian Nightjar
- (c) Spoonbill
- (d) White Ibis

Ans: (a)

Explanation:

- Mahseer roughly translates as mahi – fish and sher – tiger, and hence is also referred as tiger among fish. It is a large cyprinid and known to be the toughest among the fresh water sport fish.
- The body colour of an adult Golden Mahseer is golden on dorsal side and fins are reddish-yellow. Also the fish is characterized by their large scales and thick powerful lips with relatively longer barbels (sensory hair-like organs in front of the mouth).
- Mahseer is a sensitive species that can barely tolerate a modified water environment. Out of the 47 species of Mahseer that exist in the world, India is home to fifteen.

Hence, option (a) is correct.

58. Which of the following are nitrogen-fixing plants?

1. Alfalfa
2. Amaranth
3. Chickpea
4. Clover
5. Purslane (Kulfa)
6. Spinach

Select the correct answer using the code given below:

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

Ans: (a)

Explanation:

- **Nitrogen fixation**, any natural or industrial process that causes free nitrogen (N₂), which is a relatively inert gas plentiful in air, to combine chemically with other elements to form more-reactive nitrogen compounds such as ammonia, nitrates, or nitrites.
- Two kinds of nitrogen-fixing microorganisms are recognized: free-living (nonsymbiotic) bacteria, including the cyanobacteria (or blue-green algae) *Anabaena* and *Nostoc* and general such as *Azotobacter*, *Beijerinckia*, and *Clostridium*; and mutualistic (symbiotic) bacteria such as *Rhizobium*, associated with leguminous plants, and various *Azospirillum* species, associated with cereal grasses. e.g., alfalfa, beans, clovers, peas, soybeans etc.
- **Hence, option (a) is correct.**

59. "Biorock technology" is talked about in which one of the following situations?

- (a) Restoration of damaged coral reefs
- (b) Development of building materials using plant residue
- (c) Identification of areas for exploration/extraction of shale gas
- (d) Providing salt licks for wild animals in forests/protected areas

Ans: (a)

Explanation:

- **Mineral Accretion Technology** also called '**Biorock Technology**', it is a method that applies safe, **low voltage electrical currents** through seawater, causing **dissolved minerals to crystallise** on structures, growing into a white limestone (CaCO₃) similar to that which naturally makes up coral reefs and tropical white sand beaches.
- **Biorock**, also known as Seacrete or Seament, refers to the substance formed by electro-accumulation of minerals dissolved in seawater.

Hence, option (a) is correct.

<https://www.drishtiias.com/daily-updates/daily-news-analysis/coral-restoration-through-biorock>

60. The "Miyawaki method" is well known for the:

- (a) Promotion of commercial farming in arid and semi-arid areas
- (b) Development of gardens using genetically modified flora
- (c) Creation of mini forests in urban areas
- (d) Harvesting wind energy on coastal areas and on sea surfaces

Ans: (c)

Explanation:

- Miyawaki is a technique pioneered by Japanese botanist Akira Miyawaki, that helps build **dense, native forests** in a **short time**.
- It has revolutionised the concept of **urban afforestation** by turning backyards into mini-forests.
- This method includes planting trees (**only native species**) as close as possible in the same area which not only **saves space**, but the planted saplings also support each other in growth and block sunlight reaching the ground, thereby preventing the **growth of weed**.
- **The saplings** become **maintenance-free** (self sustainable) after the first three years.

Hence, option (c) is correct.

61. Consider the following:

1. Aarogya Setu
2. CoWIN
3. DigiLocker
4. DIKSHA

Which of the above are built on top of open-source digital platforms?

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

Ans: (d)

Explanation:

- **Aarogya Setu** has been transparent, privacy and security and in line with India's policy **on Open Source Software**, the source code of Aarogya Setu has now been made open source.
- **CoWin platform** is being made open source, available to any and all countries. The Prime Minister, Shri Narendra Modi addressed the CoWin Global Conclave as India offered the CoWIN platform as a digital public good to the world to combat Covid-19.
- **DIKSHA (Digital Infrastructure for Knowledge Sharing)** is a national platform for school education, an initiative of National Council for Education Research and Training (NCERT), Ministry of Education.
 - DIKSHA was developed based on the core principles of open architecture, open access, open licensing diversity, choice and autonomy as outlined in the Strategy and Approach Paper for the National Teacher Platform released by the former Hon' Minister for Human Resources Development Shri Prakash Javdekar in May, 2017. DIKSHA itself was launched by the Hon' Vice President of India on Sept 5th, 2017 and has since been adopted by 35 states/UTs across as well as CBSE and NCERT and by crores of learners and teachers. DIKSHA is built using Sunbird ED, a fully functional solution building block available as open-source software under MIT license and is part of Sunbird, a "Made in India, Made for the World" digital public good (DPG).
- **DigiLocker** is a key initiative under Digital India, the Government of India's flagship program aimed at transforming India into a digitally empowered society and knowledge economy. Targeted at the idea of paperless governance,
 - DigiLocker is a platform for issuance and verification of documents & certificates in a digital way, thus eliminating the use of physical documents.
 - The platform uses several open source technologies to deliver a mass solution and contributes back to the ever-growing community.

Hence, option (d) is correct.

62. With reference to Web 3.0, consider the following statements:

1. Web 3.0 technology enables people to control their own data.
2. In Web 3.0 world, there can blockchain based social networks.

3. Web 3.0 is operated by users collectively rather than a corporation.

Which of the statements given above are correct?

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

Ans: (d)

Explanation:

- **Web 3.0:**
 - Web 3.0 is a decentralized internet to **be run on blockchain technology**, which would be different from the versions in use, Web 1.0 and Web 2.0. **Hence statement 2 is correct.**
- **Significance of Web 3.0:**
 - **Decentralized and Fair Internet:** Web3 will deliver a decentralized and **fair internet where users control their own data. Hence statement 1 is correct.**
 - **Eliminates Intermediaries:** With block chain, the time and place of the transaction are recorded permanently.
 - Thus, Web3 enables peer to peer (seller to buyer) transactions by eliminating the role of the intermediary. This concept can be extended to
 - **Decentralization and Transparency:** The spirit of Web3 is Decentralized Autonomous Organization (DAO).
 - DAO is all about the business rules and governing rules in any transaction are transparently available for anyone to see and software will be written conforming to these rules.
 - With DAO, there is no need for a central authority to authenticate or validate.
- Web3, short for web 3.0, is a vision of the future of the Internet. It's **operated by users collectively, rather than a corporation. Hence, statement 3 is correct.**

63. With reference to "Software as a Service (SaaS)", consider the following statements:

1. SaaS buyers can customise the user interface and can change data fields.
2. SaaS users can access their data through their mobile devices.
3. Outlook, Hotmail and Yahoo! Mail are forms of SaaS.

Which of the statements given above are correct?

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

Ans: (d)

Explanation:

- SaaS is a method of software delivery that allows **data to be accessed from any device with an internet connection and a web browser eg. mobile or computer. Hence statement 2**

is correct.

- In this web-based model, software vendors host and maintain the servers, databases, and the code that makes up an application.
 - Users can customise the user interface and change data fields. **Hence, statement 1 is correct.**
- The **common form of SaaS use is a web-based email service such as Outlook, Hotmail or Yahoo! Mail**, with these services, you access your account over the Internet, often from a web browser. **Hence, statement 3 is correct.**

64. Which one of the following statements best reflects the idea behind the "Fractional Orbital Bombardment System" often talked about in media?

- (a) A hypersonic missile is launched into space to counter the asteroid approaching the Earth and explode it in space.
- (b) A spacecraft lands on another planet after making several orbital motions.
- (c) A missile is put into a stable orbit around the Earth and deorbits over a target on the Earth.
- (d) A spacecraft moves along a comet with the same speed and places a probe on its surface.

Ans: (c)

Explanation:

- A Fractional Orbital Bombardment System (FOBS) is a warhead delivery system that uses a low earth orbit towards its target destination. Just before reaching the target, it deorbits through a retrograde engine burn.
- The Soviet Union first developed FOBS as a nuclear-weapons delivery system in the 1960s. It was one of the first Soviet efforts to use space to deliver nuclear weapons.

Hence, option (c) is correct.

65. Which one of the following is the context in which the term "qubit" is mentioned?

- (a) Cloud Services
- (b) Quantum Computing
- (c) Visible Light Communication Technologies
- (d) Wireless Communication Technologies

Ans: (b)

Explanation:

- **Quantum Supremacy**
 - Quantum computers compute in 'qubits' (or quantum bits). They exploit the properties of quantum mechanics, the science that governs how matter behaves on the atomic scale.
- **Hence, option (b) is correct.**

66. Consider the following communication technologies:

1. Closed-circuit Television
2. Radio Frequency Identification
3. Wireless Local Area Network

Which of the above are considered Short-Range devices/technologies?

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

Ans: (d)

Explanation:

- **Short Range Devices (SRD)** are radio devices that offer a low risk of interference with other radio services, usually because their transmitted power, and hence their range, is low. The definition 'Short Range Device' may be applied to many different types of wireless equipment, including various forms of:
 - Access control (including door and gate openers)
 - Alarms and movement detectors
 - **Closed-circuit television (CCTV)**
 - Cordless audio devices, including wireless microphones
 - Industrial control
 - **Local Area Networks**
 - Medical implants
 - Metering devices
 - Remote control
 - **Radio frequency identification (RFID)**
 - Road Transport Telematics
 - Telemetry.
- **Hence, option (d) is correct**

<https://www.etsi.org/technologies/short-range-devices>

67. Consider the following statements:

1. Biofilms can form on medical implants within human tissues.
2. Biofilms can form on food and food processing surfaces.
3. Biofilms can exhibit antibiotic resistance.

Which of the statements given above are correct?

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

Ans: (d)

Explanation:

- In medicine, **biofilms form on medical implants and within human tissue** as in cystic fibrosis; in industry they cover equipment surfaces. Biofilms protect their inhabitants from various adverse environmental conditions including biocides and antibiotics. **Hence, statement 1 is**

correct.

- Biofilms can form quickly in food industry environments. Particularities regarding attachment and composition of **biofilms formed in food and food processing. Hence, statement 2 is correct.**
 - Environments are presented and genes involved in biofilm production are mentioned.
- Microbial cells within biofilms have shown 10-1000 times more **antibiotics resistance** than the planktonic cells. **Hence, statement 3 is correct.**

<https://onlinelibrary.wiley.com/doi/pdf/10.1002/jppr2002322153#:~:text=In%20medicine%2C%20biofilms%20form%20on,incluing%20biocides%20and%20anti%20biotics>

<https://www.livescience.com/57295-biofilms.html>

68. Consider the following statements in respect of probiotics:

1. Probiotics are made of both bacteria and yeast.
2. The organisms in probiotics are found in foods we ingest but they do not naturally occur in our gut.
3. Probiotics help in the digestion of milk sugars.

Which of the statements given above is/are correct?

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

Ans: (c)

Explanation:

- Probiotics are a combination of live beneficial bacteria and/or yeasts that naturally live in your body. Bacteria is usually viewed in a negative light as something that makes you sick. **Hence, statement 1 is correct.**
- Acidophilus is a probiotic bacteria that naturally occurs in the human gut and other parts of the body. This bacteria helps the digestive system break down sugars, such as lactose, into lactic acid. Trillions of bacteria and other micro-organisms live in every person's gut. There are several ways you can take a probiotic supplement. They come in a variety of forms, including in Foods, Drinks, Capsules or pills, Powders, Liquids. **Hence, statement 2 is not correct but statement 3 is correct.**

<https://www.healthline.com/health/probiotics-and-digestive-health#:~:text=Lactobacillus%3A%20This%20genus%20of%20bacteria,the%20body's%20absorption%20of%20minerals.>

69. In the context of vaccines manufactured to prevent COVID-19 pandemic, consider the following statements:

1. The Serum Institute of India produced COVID-19 vaccine named Covishield using mRNA platform.
2. Sputnik V vaccine is manufactured using vector based platform.
3. COVAXIN is an inactivated pathogen based vaccine.

Which of the statements given above are correct?

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

Ans: (b)

Explanation:

- **COVISHIELD vaccine** is based on the platform which uses a recombinant, replication-deficient chimpanzee adenovirus vector encoding the SARS-CoV-2 Spike (S) glycoprotein. Following administration, the genetic material of part of coronavirus is expressed which stimulates an immune response. **Hence, statement 1 is not correct.**
- Sputnik V is the world's first registered vaccine based on a well-studied human adenovirus vector platform. It has been approved for use in 71 countries with a total population of 4 billion people. The vaccine is named after the first Soviet space satellite. The vaccine's efficacy is 97.6%, based on the analysis of data on the incidence of coronavirus among Russians vaccinated with both vaccine components between December 5, 2020 and March 31, 2021. **Hence, statement 2 is correct.**
- Covaxin is an inactivated viral vaccine. This vaccine is developed with Whole-Virion Inactivated Vero Cell-derived technology. They contain inactivated viruses, which cannot infect a person but still can teach the immune system to prepare a defence mechanism against the active virus. **Hence, statement 3 is correct.**

[https://www.who.int/publications/m/item/covaxin-\(bbv152\)-inactivated-covid-19-vaccine](https://www.who.int/publications/m/item/covaxin-(bbv152)-inactivated-covid-19-vaccine)

70. If a major solar storm (solar flare) reaches the Earth, which of the following are the possible effects on the Earth?

1. GPS and navigation systems could fail.
2. Tsunamis could occur at equatorial regions.
3. Power grids could be damaged.
4. Intense auroras could occur over much of the Earth.
5. Forest fires could take place over much of the planet.
6. Orbits of the satellites could be disturbed.
7. Shortwave radio communication of the aircraft flying over polar regions could be interrupted.

Select the correct answer using the code given below:

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

Ans: (c)

Explanation:

- The Sun emitted a strong solar flare on Tuesday, May 10, 2022, peaking at 9:55 a.m. EDT. NASA's Solar Dynamics Observatory, which watches the Sun constantly, captured an image of the event. Solar flares are powerful bursts of energy.
- The storms can often be observed as beautiful aurorae in our night sky, but they can also cause major disturbances in Earth's power grids and navigation systems.
- A massive solar flare erupted from the Sun's surface, disrupting radio waves, telecommunication networks, and power systems by triggering an intense magnetic storm.
- Scientists have found evidence of an extreme solar 'tsunami' deep within the Earth's ice through analyses of ice cores from Greenland and Antarctica.
- A magnetic dam is formed which is storing a big mass of plasma. At the end of a solar cycle, this magnetic dam can break, releasing huge amounts of plasma cascading like a tsunami towards the poles.

Therefore, statements 1, 3, 4, 6 & 7 are correct. **Hence option (c) is correct.**

<https://www.inverse.com/science/a-recent-uptick-in-solar-storms-has-scientists-worried>

<https://www.wionews.com/science/scientists-find-evidence-of-an-extreme-solar-tsunami-deep-within-earths-ice-448784>

<https://www.drishtiias.com/daily-updates/daily-news-analysis/solar-tsunami-can-trigger-the-sunspot-cycle>

71. Among the following crops, which one is the most important anthropogenic source of both methane and nitrous oxide?

- (a) Cotton
- (b) Rice
- (c) Sugarcane
- (d) Wheat

Ans: (b)

Explanation:

- Paddy (Rice) is the most important anthropogenic source of both methane and nitrous oxide. Presently paddy production is facing major challenges which include scarcity of irrigation water and ongoing climate change. Modification of current cropping techniques can increase yields, save water and reduce greenhouse gas emissions.
- **Hence option (b) is correct.**

72. "System of Rice Intensification" of cultivation, in which alternate wetting and drying of rice fields is practised, results in :

1. Reduced seed requirement
2. Reduced methane production
3. Reduced electricity consumption

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: (d)

Explanation:

- The "Rice Intensification System" of agriculture, in which the paddy fields are alternately cleaved and dried, the main objective of this method is **less requirement of seed, less production of methane and less consumption of electricity.**
- **Hence option (d) is correct.**

73. Which one of the following lakes of West Africa has become dry and turned into a desert?

- (a) Lake Victoria
- (b) Lake Faguibine
- (c) Lake Oguta
- (d) Lake Volta

Ans: (b)

Explanation:

- According to the United Nations Climate Change Conference-COP 26, Lake Faguibine in West Africa has dried up and turned into a desert.
- **Hence option (b) is correct.**

74. Gandikota canyon of South India was created by which one of the following rivers?

- (a) Cauvery
- (b) Manjira
- (c) Pennar
- (d) Tungabhadra

Ans: (c)

Explanation:

- Gandikota is a Twi village in Cuddapah district of Andhra Pradesh surrounded by the Pennar River on the right, the village is popular for the spectacular valleys formed by the river running through the Erramala hills. The narrow valleys and steep rocky walls with streams running between them look very beautiful.
- **Hence option (c) is correct.**

75. Consider the following pairs:

	Peak		Mountains
1.	Namcha Barwa	—	Garhwal Himalaya
2.	Nanda Devi	—	Kumaon Himalaya
3.	Nokrek	—	Sikkim Himalaya

Which of the pairs given above is/are correctly matched?

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

Ans: (b)

Explanation:

Nanda Devi peaks are a part of Kumaon Himalaya.

- The part of Himalaya situated between Sutlej and Kali rivers is known as Kumaon Himalaya.
- The Greater Himalayas extend from Nanga Parbat in the west to Namcha Barwa Peak in the east.
- The Namcha Barwa mountain range comes under Tibet.

Hence option (b) is correct.

76. The term "Levant" often heard in the news roughly corresponds to which of the following regions?

- (a) Region along the eastern Mediterranean shores
- (b) Region along North African shores stretching from Egypt to Morocco
- (c) Region along Persian Gulf and Horn of Africa
- (d) The entire coastal areas of Mediterranean Sea

Ans: (a)

Explanation:

The Levant is the **eastern shoreland of the Mediterranean**, a stretch of land approximately 800 km long and approximately 150 km wide. It is wedged in between the Mediterranean Sea in the west and the Arabo-Syrian Desert in the east, stretching from the mouth of the River Orontes in the north to the Isthmus of Suez in the south.

Hence option (a) is correct.

<https://www.sciencedirect.com/topics/social-sciences/levant>

77. Consider the following countries:

1. Azerbaijan
2. Kyrgyzstan
3. Tajikistan
4. Turkmenistan
5. Uzbekistan

Which of the above have borders with Afghanistan?

- (a) 1, 2 and 5 only

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

Ans: (c)

Explanation:

- Afghanistan originally known as Ariana or Bactra and then as Khorasan (the land of the rising sun) is bounded by Iran and Turkmenistan to its west, Uzbekistan, Tajikistan and Kyrgyzstan to its north, Pakistan to its east and south, while the northeast portion of the Wakhan province of Afghanistan by China.
- Afghanistan has borders with the following countries: **China, Iran, Pakistan, Tajikistan, Turkmenistan and Uzbekistan.**
- **Hence option (c) is correct.**

<http://saarc-sdmc.org/afghanistan>

78. With reference to India, consider the following statements?

1. Monazite is a source of rare earths.
2. Monazite contains thorium.
3. Monazite occurs naturally in the entire Indian coastal sands in India.
4. In India, Government bodies only can process or export monazite.

Which of the statements given above are correct?

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

Ans: (b)

Explanation:

- **Monazite ore is found in India, Madagascar and in South-Africa.**
- Monazite is an important ore of rare earths elements thorium, lanthanum, and cerium.
- The state-wise sources of monazite:

State	Monazite (Million tonne)
Odisha	2.41
Andhra Pradesh	3.72
Tamil Nadu	2.46
Kerala	1.90
West Bengal	1.22
Jharkhand	0.22
Total	11.93

- **It is not found all along the Indian coast.**
- **Private companies** were not allowed to mine beach sand minerals until 1993. After liberalisation, private companies were initially allowed to mine garnet and sillimanite and permissions for other minerals followed.
 - An earlier amendment in 2016 barred private companies from mining beach sand that had monazite concentration of more than 0.75%.
 - Private firms are restricted from processing or exporting monazite. **It remains a government monopoly, extracted under the purview of the Department of Atomic Energy.**

Hence, option (b) is correct.

<https://science.thewire.in/politics/government/centre-bars-private-players-from-mining-beach-sand-minerals/>

79. In the northern hemisphere, the longest day of the year normally occurs in the:

- (a) First half of the month of June
- (b) Second half of the month of June
- (c) First half of the month of July
- (d) Second half of the month of July

Ans: (b)

Explanation:

- In the northern hemisphere 'Second half of the month June (21st June)' is the longest day of the year.
- **Hence option (b) is correct.**

<https://www.drishtias.com/daily-updates/daily-news-analysis/summer-solstice-21st-june#:~:text=21st%20June%20is%20the,latitude%20of%20the%20place>

80. Consider the following pairs:

	Wetland/Lake		Location
1.	Hokera Wetland	—	Punjab
2.	Renuka Wetland	—	Himachal Pradesh
3.	Rudrasagar Lake	—	Tripura
4.	Sasthamkotta Lake	—	Tamil Nadu

How many pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

Ans: (b)

Explanation:

	Wetland/Lake		Location
1.	Hokera Wetland	—	Jammu and Kashmir
2.	Renuka Wetland	—	Himachal Pradesh
3.	Rudrasagar Lake	—	Tripura
4.	Sasthamkotta Lake	—	Tamil Nadu

Hence, option (b) is correct.

<https://www.drishtias.com/to-the-points/paper3/wetlands-1>

81. Consider the following statements:

1. Pursuant to the report of H.N. Sanyal Committee, the Contempt of Courts Act, 1971 was passed.
2. The Constitution of India empowers the Supreme Court and the High Courts to punish for contempt of themselves.
3. The Constitution of India defines Civil Contempt and Criminal Contempt.
4. In India, the Parliament is vested with the powers to make laws on Contempt of Court.

Which of the statements given above is/are correct?

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

Ans: (b)

Explanation:

- The 1963 Bill prepared by the Satyapal Committee was reviewed by a Joint Committee of Parliament (1969-70) (Bhargava Committee). Based on which the Contempt of Court Act, 1971 was enacted. **Hence statement 1 is correct.**
- Article 129 of the Constitution empowered the Supreme Court to punish for contempt of self. Article 215 gave the respective power to the High Courts. **Hence statement 2 is correct.**
- According to the Contempt of Court Act, 1971, contempt refers to the offence of showing disrespect to the dignity or authority of a court. The expression 'contempt of court' has not been defined by the Constitution. However, Article 129 of the Constitution empowers the Supreme Court to punish for contempt of self. **Hence statement 3 is not correct.**
- The power to punish for contempt is a constitutional power vested in the Supreme Court which cannot be curtailed or abolished even by a legislative act. Article 142(2) states that "subject to the provisions of any law made by Parliament in this behalf" the Supreme Court shall have full power to make any order on the punishment of contempt. **Hence statement 4 is correct.**

82. With reference to India, consider the following statements:

1. Government law officers and legal firms are recognised as advocates, but corporate lawyers and patent attorneys are excluded from recognition as advocates.
2. Bar Councils have the power to lay down the rules relating to legal education and recognition of law colleges.

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:

- Government law officers, legal firms and patent jurists are recognized as advocates, while corporate lawyers are outside the recognition of advocates. **Hence statement 1 is not correct.**
- The Bar Council of India is a statutory body established under Section 4 of the Advocates Act 1961 that regulates legal practice and legal education in India. Its members are elected from amongst lawyers in India and thus represent the Indian Bar. It sets standards of professional conduct, etiquette and exercises disciplinary jurisdiction over the bar.
- It also sets standards for legal education and provides recognition to universities whose law degrees will serve as qualifications for students to enroll as advocates at the undergraduate level. **Hence, statement 2 is correct.**

83. Consider the following statements:

1. A bill amending the Constitution requires a prior recommendation of the President of India.
2. When a Constitution Amendment Bill is presented to the President of India, it is obligatory for the President of India to give his/her assent.
3. A Constitution Amendment Bill must be passed by both the Lok Sabha and the Rajya Sabha by a special majority and there is no provision for joint sitting.

Which of the statements given above are correct?

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

Ans: (b)

Explanation:

- The Constitution Amendment Bill can be reinstated by a minister or a private member and for this the prior approval of the President is not necessary. **Hence, statement 1 is not correct.**
- The President is bound to assent to the bill. They can neither keep the bill with themselves nor send it to the Parliament for reconsideration. **Hence statement 2 is correct.**
- It is mandatory to pass the Constitution Amendment Bill separately in each house. In case of disagreement between the two houses, there is no provision to pass the bill in the joint sitting of both the houses. **Hence, statement 3 is correct.**

84. Consider the following statements:

1. The Constitution of India classifies the ministers into four ranks viz. Cabinet Minister, Minister of State with Independent Charge, Minister of State and Deputy Minister.

2. The total number of ministers in the Union Government, including the Prime Minister, shall not exceed 15 percent of the total number of members in the Lok Sabha.

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:

- There are three categories of ministers in the Council of Ministers - Cabinet Ministers, Ministers of State, Deputy Ministers. The difference between them is- their hierarchy, their salary and political importance. **Hence statement 1 is not correct.**
- The total number of members of the Council of Ministers, including the Prime Minister, shall not exceed 15 percent of the total strength of the Lok Sabha. This provision has been included by the 91st Constitutional Amendment Bill, 2003. **Hence statement 2 is correct.**

85. Which of the following is/are the exclusive power(s) of Lok Sabha?

1. To ratify the declaration of Emergency
2. To pass a motion of no-confidence against the Council of Ministers
3. To impeach the President of India

Select the correct answer using the code given below:

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

Ans: (b)

Explanation:

- It is the exclusive power of the Lok Sabha to pass a no-confidence motion against the Council of Ministers. When the Lok Sabha passes a no-confidence motion against the Council of Ministers, all the ministers, including the ministers of the Rajya Sabha, have to resign. **Hence, statement 2 is correct.**
- The resolution of the proclamation of emergency will be required to be passed by a majority of the total number of members of each House of Parliament and 2/3 majority of the members present and voting. A Declaration of National Emergency is placed before each House of Parliament and if it is not approved within a month, it does not remain in force, but once approved, it can remain in operation for six months. As a result, the Proclamation of Emergency is ratified by both the Lok Sabha and the Rajya Sabha. It is not the exclusive power of the Lok Sabha. **Hence, statement 1 is not correct.**
- The impeachment motion of the President should be passed by a special majority (two-thirds) in the original house. The motion is then sent to the other house for consideration. The second house

acts as an inspector. A Select Committee has been constituted to investigate the allegations against the President. Impeachment of the President of India comes under both Lok Sabha and Rajya Sabha. It is not the exclusive power of Lok Sabha. **Hence, statement 3 is not correct.**

86. With reference to anti-defection law in India, consider the following statements?

1. The law specifies that a nominated legislator cannot join any political party within six months of being appointed to the House.
2. The law does not provide any time-frame within which the presiding officer has to decide a defection case.

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:

- A public representative can be disqualified under the Anti-Defection Act if:
 - An elected member voluntarily gives up the membership of a political party.
 - An independent elected member joins a political party.
 - A member votes against the party in the House.
 - A member abstains from voting.
 - After the expiry of six months, a nominated member joins a political party.
- Therefore, any nominated MLA can join any political party within six months of being appointed to the House but not after six months. **Hence statement 1 is not correct.**
- As per the law, the Speaker of the House has the power to decide the disqualification of the members.
- **If any complaint is received regarding the party of the Speaker of the House, any other member elected by the House has the right to take a decision in this regard. Therefore, this law does not prescribe any time period within which the presiding officer has to decide the defection case. Hence statement 2 is correct.**

<https://www.drishtias.com/daily-updates/daily-news-analysis/anti-defection-law-7>

87. Consider the following statements:

1. Attorney General of India and Solicitor General of India are the only officers of the Government who are allowed to participate in the meetings of the Parliament of India.
2. According to the Constitution of India, the Attorney General of India submits his resignation when the Government which appointed him resigns.

Which of the statements given above is/are correct?

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

(c) Neither 1 nor 2

Ans: (d)

Explanation:

- According to the Constitution, **only the Attorney General** can take part in the proceedings of both the Houses of Parliament or their joint sitting and any committee of the Parliament of which s/he may be named a member, but without a right to vote. In addition to the AG, there are other law officers of the Government of India. They are the solicitor general of India and additional solicitor general of India. They assist the Attorney General in carrying out official duties. The Constitution does not mention the solicitor general and additional solicitor general. **Hence statement 1 not correct.**
- The procedure and grounds for removal of the Attorney General are not mentioned in the Constitution. He holds office during the pleasure of the President (may be removed by the President at any time). Therefore, the Attorney General of India does not resign on the resignation of the government. **Hence statement 2 is not correct.**

<https://www.drishtiias.com/daily-updates/daily-news-analysis/attorney-general-of-india-1>

88. With reference to the writs issued by the Courts in India, consider the following statements:

1. Mandamus will not lie against a private organisation unless it is entrusted with a public duty.
2. Mandamus will not lie against a Company even though it may be a Government Company.
3. Any public minded person can be a petitioner to move the Court to obtain the writ of Quo Warranto.

Which of the statements given above are correct?

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

Ans: (c)

Explanation:

- Mandamus is issued to direct a public authority to do its duty. Mandamus is a judicial remedy in the form of an order from a court. It cannot be issued to compel an authority to do something against a statutory provision. Therefore, no mandate will be issued against any private organisation unless it has been entrusted with any public work. **Hence option 1 is correct.**
- Mandamus is issued by the court to a public official asking him to perform his official duties that he has failed or refused to perform. It can also be issued against any **public body, a corporation**, an inferior court, a tribunal or government for the same purpose. **Hence, statement 2 is not correct.**
- The Supreme Court or High Court issues this writ to prevent illegal usurpation of public office by any person. Through this writ, the court examines the validity of a person's claim to public office. This writ empowers any person other than the aggrieved person to seek redress. Therefore, any public-prone person can be a petitioner to move the court to obtain a writ of right. **Hence option 3 is correct.**

<https://www.drishtiias.com/daily-updates/daily-news-editorials/constitutional-rights-judicial-review-and-parliamentary-democracy>

89. With reference to Ayushman Bharat Digital Mission, consider the following statements:

1. Private and public hospitals must adopt it.
2. As it aims to achieve universal, health coverage, every citizen of India should be part of it ultimately.
3. It has seamless portability across the country.

Which of the statements given above is/are correct?

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

Ans: (b)

Explanation:

- Ayushman Bharat is a flagship scheme of the country, which was launched as per the recommendation of National Health Policy 2017 to achieve the vision of Universal Health Coverage (UHC). Under Ayushman Bharat Digital Mission, citizens will be able to get their Ayushman Bharat health account number, which can be linked to their digital health records.
- Participation in **ABDM is voluntary including for citizens. Participation of a healthcare facility or an institution is also voluntary** and shall be taken by the respective management (government or private management). However, once the management decides to register the respective healthcare facility/institution in ABDM, it is essential for all the healthcare professionals serving the said facility/institution to register in Healthcare Professionals Registry so that the institution can become fully integrated with the National Digital Health Ecosystem (NDHE). **Hence, both statements 1 and 2 are not correct.**

<https://abdm.gov.in/faq>

- Ayushman Bharat Digital Mission will have a national footprint and will enable **seamless portability across the country through a Health ID** - Personal Health Identifier, with supporting blocks, including adoption of Health Information Standards will play a pivotal role in national portability. **Hence, statement 3 is correct.**

[https://abdm.gov.in/abdm#:~:text=Ayushman%20Bharat%20Digital%20Mission%20\(ABDM\)%20will%20have%20a%20national%20footprint.pivotal%20role%20in%20national%20portability](https://abdm.gov.in/abdm#:~:text=Ayushman%20Bharat%20Digital%20Mission%20(ABDM)%20will%20have%20a%20national%20footprint.pivotal%20role%20in%20national%20portability)

90. With reference to Deputy Speaker of Lok Sabha, consider the following statements:

1. As per the Rules of Procedure and Conduct of Business in Lok Sabha, the election of Deputy Speaker shall be held on such date as the Speaker may fix.
2. There is a mandatory provision that the election of a candidate as Deputy Speaker of Lok Sabha shall be from either the principal opposition party or the ruling party.
3. The Deputy Speaker has the same power as of the Speaker when presiding over the sitting of the House and no appeal lies against his rulings.
4. The well established parliamentary practice regarding the appointment of Deputy Speaker is that the motion is moved by the Speaker and duly seconded by the Prime Minister.

Which of the statements given above are correct?

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

Ans: (a)

Explanation:

- According to the rules of procedure and conduct of business in the Lok Sabha, "The election of the Deputy Speaker shall be held on such date as may be decided by the Speaker. As **per convention**, the post of Deputy Speaker is given to the opposition party in India. **Hence, option 1 is correct.**
- Till the 10th Lok Sabha, both the Speaker and the Deputy Speaker were usually elected from the ruling party. Since the 11th Lok Sabha, it has been a general consensus that the post of Speaker is given to the ruling party/coalition and the post of Deputy Speaker is given to the main opposition party. **Hence option 2 is correct.**
- He is the final interpreter of the provisions of the Constitution of India, the rules of procedure and conduct of business of the Lok Sabha and parliamentary matters inside the House. In matters of interpretation of these provisions, it often gives decisions which are respected by the members and which are binding in nature. That is, his decision is final. Article 95 provides for the power of the Vice-Chairman or other person to perform the duties of the office of the Speaker or to act as the Speaker. Therefore, while presiding over the sitting of the House by the Deputy Speaker, his power is exactly the same as that of the Speaker of the Lok Sabha and no appeal can lie against his decisions. **Hence option 3 is correct.**
- The Deputy Speaker is elected by the Lok Sabha from among its members. After the election of the Speaker, the Deputy Speaker is also elected. **Hence option 4 is not correct.**

<https://www.drishtiias.com/daily-updates/daily-news-analysis/deputy-speaker-election>

91. "Rapid Financing Instrument" and "Rapid Credit Facility" are related to the provisions of lending by which one of the following?

- (a) Asian Development Bank
- (b) International Monetary Fund
- (c) United Nations Environment Programme Finance Initiative
- (d) World Bank

Ans: (b)

Explanation:

Rapid Financing Instrument (RFI)

- Rapid Financing Instrument (RFI) provides quick financial assistance, which is available to all member countries facing urgent balance of payments requirements. The RFI was created as part of a broader reform to make IMF financial support more flexible to meet the diverse needs of member states. The RFI replaces the IMF's previous emergency assistance policy and can be used in a wide variety of circumstances.

Rapid Credit Facility (RCF)

- The Rapid Credit Facility (RCF) provides immediate balance of payments (BoP) requirements to low-

income countries (LICs) with no ex post condition, where a full economic program is neither necessary nor feasible. RCF was set up as part of a comprehensive reform to make the fund's financial support more flexible and better suited to suit the diverse needs of LIC including times of crisis.

- **There are three areas under the RCF:** (i) a "regular window" for immediate BoP needs due to a wide range of sources such as household instability, emergencies and fragility (ii) for immediate BoP needs due to sudden, exogenous shocks. an "exogenous shock window" and (iii) a "large natural disaster window" for immediate BoP needs due to natural disasters where the damage is estimated to be equal to or greater than 20% of the member's GDP

IMF

92. With reference to the Indian economy, consider the following statements:

1. An increase in Nominal Effective Exchange Rate (NEER) indicates the appreciation of rupee.
2. An increase in the Real Effective Exchange Rate (REER) indicates an improvement in trade competitiveness.
3. An increasing trend in domestic inflation relative to inflation in other countries is likely to cause an increasing divergence between NEER and REER.

Which of the above statements are correct?

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

Ans: (c)

Explanation:

- The Reserve Bank of India (RBI) tabulates the 'Nominal Effective Exchange Rate-NEER' of the rupee with respect to the currencies of 36 trading partner countries. It is a type of weighted index, that is, in this, more importance is given to those countries with which India does more business. A decrease in this index reflects a depreciation in the value of the rupee, while an increase in the index reflects an appreciation in the value of the rupee.
- Apart from NEER, 'Real Effective Exchange Rate (REER) is also an important parameter to measure the changes taking place in the Indian economy. Under REER, apart from other factors included in NEER, domestic inflation in various economies is also taken into account, due to which its importance increases.
- NEER is the weighted average of the bilateral exchange rates of the domestic currency with respect to foreign currencies. Whereas REER is the weighted average of the domestic currency relative to other major currencies, adjusted for the effects of inflation.
- NEER is an indicator of a country's international competitiveness in the foreign exchange market. REER is calculated after adjusting the price change in NEER. Thus, economists give more importance to REER than NEER.
- $NEER = \text{Domestic Exchange Rate in terms of Special Drawing Rights (SDR)} / \text{Foreign Exchange Rate in terms of Special Drawing Rights (SDR)}$
- $REER = NEER \times (\text{Domestic Price Index} / \text{Foreign Price Index})$. Hence statements 1 and 3 are correct.

<https://www.drishtijas.com/daily-updates/daily-news-analysis/currency-exchange-rate-index>

93. With reference to the Indian economy, consider the following statements:

1. If the inflation is too high, Reserve Bank of India (RBI) is likely to buy government securities.
2. If the rupee is rapidly depreciating, RBI is likely to sell dollars in the market.
3. If interest rates in the USA or European Union were to fall, that is likely to induce RBI to buy dollars.

Which of the statements given above are correct?

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

Ans: (b)

Explanation:

- To control inflation, RBI sells securities in the money market which absorbs the excess liquidity from the market. **Hence, statement 1 is not correct.**
- When the rupee depreciates sharply, the Reserve Bank increases the supply of dollars. If interest rates fall in international markets such as in the US or the European Union, it has an effect on the purchase of dollars in the markets of other countries such as India.

94. With reference to the "G20 Common Framework", consider the following statements:

1. It is an initiative endorsed by the G20 together with the Paris Club.
2. It is an initiative to support Low Income Countries with unsustainable debt.

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 Common Framework for Debt Treatment Beyond the DSSI (Common Framework), is an initiative supported by the G20 together with the Paris Club.
- Which is to support, in a structural way, low-income countries with unsustainable debt.

95. With reference to the Indian economy, what are the advantages of "Inflation-Indexed Bonds (IIBs)"?

1. Government can reduce the coupon rates on its borrowing by way of IIBs.
2. IIBS provide protection to the investors from uncertainty regarding inflation.
3. The interest received as well as capital gains on IIBs are not taxable.

Which of the statements given above are correct?

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

Ans: (a)

Explanation:

According to the Reserve Bank of India,

- CIB released in 1997 provided inflation protection only for principal and not for interest payment. While new products of IIB would provide inflation protection for both principal and interest payment.
- The interest rate will be protected from inflation by paying a fixed coupon rate on the principal adjusted against inflation. And the government can reduce the coupon rates on its borrowings in the form of IIBs.
- **Hence statements 1 and 2 are correct.**
- Inflation Indexed Bonds (IIBs) were issued during 1997 in the name of Capital Indexed Bonds (CIBs). And IIBs can also be traded in the secondary market (through BSE, NSE, and other stock exchanges), However, if they are sold in the secondary market and profit is made, capital gains tax has to be paid. **Hence statement 3 is not correct.**

96. With reference to foreign-owned e-commerce firms operating in India, which of the following statements is/are correct?

1. They can sell their own goods in addition to offering their platforms as market-places.
2. The degree to which they can own big sellers on their platforms is limited.

Select the correct answer using the code given below:

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

Ans: (d)

Explanation:

Based on the rules of e-commerce

- E-commerce entities providing a market place shall not exercise ownership over the inventory. Such ownership of inventory would render the business in an inventory based model. **Hence statement 1 is not correct.**
- An **entity having equity participation by e-commerce marketplace entity** or its group companies, or having control on its inventory by e-commerce marketplace entity or its group companies, **will not be permitted (if not permitted, the question of limit does not arise)** to sell its products on the platform run by such marketplace entity.

97. Which of the following activities constitute real sector in the economy?

1. Farmers harvesting their crops
2. Textile mills converting raw cotton into fabrics
3. A commercial bank lending money to a trading company.
4. A corporate body issuing Rupee Denominated Bonds overseas.

Select the correct answer using the code given below:

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

Ans: (a)

Explanation:

- Real sectors of the economy include enterprises (non-financial corporations), households and nonprofits that serve families. **Therefore only statements 1 and 2 are correct.**

98. Which one of the following situations best reflects "Indirect Transfers" often talked about in media recently with reference to India?

- (a) An Indian company investing in a foreign enterprise and paying taxes to the foreign country on the profits arising out of its investment.
- (b) A foreign company investing in India and paying taxes to the country of its base on the profits arising out of its investment.
- (c) An Indian company purchases tangible assets in a foreign country and sells such assets after their value increases and transfers the proceeds to India.
- (d) A foreign company transfers shares and such shares derive their substantial value from assets located in India.

Ans: (d)

Explanation:

- The term 'indirect transfer', often discussed in the mass media, refers to situations where foreign entities holding shares or assets in India, the shares of such foreign entities are transferred instead of a direct transfer of the underlying assets in India.
- **Hence option (d) is the most appropriate.**

99. With reference to the expenditure made by an organization or a company, which of the following statements is/are correct?

1. Acquiring new technology is capital expenditure.
2. Debt financing is considered capital expenditure, while equity financing is considered revenue

expenditure.

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:

- Capital expenditure (Cap ex.) is the amount of money used by a company to acquire, upgrade, and maintain physical assets such as property, plants, buildings, technology, or equipment. CapEx is often used by a company to fund new projects or investments. **Hence statement 1 is correct.**
- **Statement 2 is not correct**, as equity financing is a method of raising funds to meet the liquidity needs of an organisation by selling the stock of a company in exchange for cash, hence it is treated as capital expenditure.

100. With reference to the Indian economy, consider the following statements:

1. A share of the household financial savings goes towards government borrowings.
2. Dated securities issued at market-related rates in auctions form a large component of internal debt.

Which of the above statements is/are correct?

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

Ans: (c)

Explanation:

- By Government Debt Status Letter, the following section provides details of the components of internal debt.
- **Market Debt** - Dated securities are the major instrument used for financing the fiscal deficit. They are issued through auction according to two half yearly issue calendars covering April-September and October-March respectively in each financial year. **Hence Statement 2 is correct.**