

General Studies Paper I , 2022



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1. 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

Solution

- Nitrogen fixation is the essential biological process and the initial stage of the nitrogen cycle. In this process, nitrogen in the atmosphere is converted into ammonia (another form of nitrogen) by certain bacterial species like Rhizobium, Azotobacter, etc., and by other natural phenomena.
- Nitrogen-fixing plants are those that have roots colonized by specific kinds of bacteria with the ability to extract nitrogen from the

air and convert it to a usable form of nitrogen that can be used to help them grow.

- Nitrogen-fixing plants contribute an essential plant nutrient that's necessary for healthy fruit and foliage production.
- Alfalfa should also be dubbed the “King of Nitrogen Fixation” because it makes more residual nitrogen available to subsequent crops than any other legume you can grow.
- Chickpea plays a significant role in improving soil fertility by fixing atmospheric nitrogen.
- Red Clover (*Trifolium Pratense*) is a nitrogen-fixing perennial plant that produces showy red, purple, or pink flowers in late spring or summer.

2. '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

Solution

- 'Rapid Financing Instrument' and 'Rapid Credit Facility' are related to the provisions of lending by **International Monetary Fund (IMF)**.
- The Rapid Financing Instrument is a window of the IMF that allows member countries to borrow, in case of a BoP crisis. The money borrowed has to be paid back within 3.25 years to 5 years.
- The Rapid Credit Facility (RCF) provides rapid concessional financial assistance to low-income countries (LICs) facing an urgent balance of payments (BoP) need with no ex post conditionality where a full-fledged economic program is neither necessary nor feasible.

3. **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

Solution

- A Credentials Committee is appointed at the beginning of each regular session of the General Assembly.
- The Committee reports to the Assembly on the credentials of representatives.
- The Committee is mandated to examine the credentials of representatives of Member States and to report to the General Assembly thereon.

4. **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

Solution

- An increase in Nominal Effective Exchange Rate (NEER) indicates the appreciation of rupee.
- An increase in a nation's REER is an indication that its exports are becoming more expensive and its imports are becoming cheaper. It

is losing its trade competitiveness.

- An increasing trend -in domestic inflation relative to inflation in other countries is likely to cause an increasing divergence between NEER and REER.
- Nominal Effective Exchange Rate is an index of a currency exchange rate which is calculated based on relation of a national currency and a basket of foreign currencies.
- The real effective exchange rate (REER) is the weighted average of a country's currency in relation to an index or basket of other major currencies.

5. **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

Solution

- The Reserve Bank of India controls inflation through monetary policies, including raising bank rates, repo rates, cash reserve ratios, dollar purchases, and managing money supply and credit availability.

- If the inflation is too high, Reserve Bank of India (RBI) is likely to sell government securities for sucking out liquidity from the market.
- To achieve stability of rupee, RBI will try to counter the demand of dollar by pumping more dollars into the economy that it has accumulated while the rupee is appreciating.
- To maintain stability, RBI buys dollars when rupee is appreciating and sells dollars when rupee is depreciating.

6. Which one of the following statement 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.

Solution

- The Polar Code is intended to cover the full range of shipping-related matters relevant to navigation in waters surrounding the two poles.
- The Code will require ships intending to operating in the defined waters of the Antarctic and Arctic to apply for a Polar Ship Certificate.
- The issuance of a certificate would require an assessment, taking into account the anticipated range of operating conditions and hazards the ship may encounter in the polar waters.

7. **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

Solution

- The Common Framework is an initiative endorsed by the G20, together with the Paris Club to support, in a structural manner, Low Income Countries with unsustainable debt.
- The Common Framework considers debt treatment, on a case-by-case basis, driven by requests from eligible debtor countries.
- Negotiations are supported by the IMF and the World Bank, including through their Debt Sustainability Analysis.

8. **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

Solution

- Inflation Indexed Bond (IIB) is a bond issued by the Sovereign, which provides the investor a constant return irrespective of the level of inflation in the economy.
- The main objective of Inflation Indexed Bonds is to provide a hedge and to safeguard the investor against macroeconomic risks in an

economy.

- RBI has allowed inflation indexed bonds (IIBs) in 2013-14, where they believe the Indian retail investor will keep their money because if Inflation should go up, income also goes up.
- Interest received on IIBs is taxable so it will give actual interest that is less than inflation.

9. **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

Solution

- E-commerce activities refer to the activity of buying and selling by a company through the E-commerce platform.
- The new e-commerce regulations are followed as- E-commerce companies running marketplace platforms cannot sell products through companies, and of companies, in which they hold an equity stake from 1 February 2019.

- The clarification puts a cap of 25% on the inventory that a marketplace entity or its group companies can buy from a vendor.

10. 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

Solution

- In economy there are two sector. One is Real Sector and the other is Financial Sector.
- The real sector of an economy is the sectors that produce goods and services.
- Financial sector engages in taking the surplus money from one sector to another sector which has deficit of money.
- There are two branches of real sectors. The first one is the primary sector and second one is the secondary sector.

- **Primary sector:** It is a sector which extract something from nature or earth or creature. It doesn't create anything. For Example: A farmer harvest crops. He doesn't create it.
- **Secondary Sector:** This sector creates goods and services by changing the formation of another good. For example: Harvesting crops is in primary sector. But when we use them to create something new it is called secondary sector. Service sector is also a part of secondary sector which is a branch of real sector

11. **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 headquarteres.**

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

Solution

- The United Nations General Assembly has granted observer status to international organizations, entities, and non-member states, to enable them to participate in the work of the United Nations General Assembly, though with limitations.
- Observer status may be granted by a United Nations General Assembly resolution. The status of a permanent observer is based

purely on practice of the General Assembly, and there are no provisions for it in the United Nations Charter.

- Permanent Observers have free access to most meetings and relevant documentation.

12. **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.

Solution

- Indirect transfers refer to situations where when foreign entities own shares or assets in India, the shares of such foreign entities are transferred instead of a direct transfer of the underlying assets in India.
- While in form there is no transfer in India, in substance there is a transfer.
- These transfers can lead to taxation in India as per recent amendments.

13. **With reference to the expenditure made by an organisation 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

Solution

- Capital expenditures (CapEx) are funds used by a company to acquire, upgrade, and maintain physical assets such as property, plants, buildings, technology, or equipment.
- CapEx spending is important for companies to maintain existing property and equipment, and invest in new technology and other assets for growth.
- Revenue expenditures are the operational expenses for running the day-to-day business and the maintenance costs that are necessary to

keep the asset in working order.

- Debt financing occurs when a company raises money by selling debt instruments to investors.
- Equity financing is the process of raising capital through the sale of shares.

14. **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

Solution

- Internal debt is that part of the total debt that is owed to lenders within the country. It is the money the government borrows from its own citizens.
- The government borrows by issuing the Government Bonds and T-Bills (Treasury Bills). It also includes the Market borrowings by the government.
- The government bonds and T-Bills are traded in the market which is also known as Gilt Market. When government borrows from the

domestic sources, the increase in inflation is less in comparison to simply printing the money.

- Household savings is defined as the difference between a household's disposable income and its consumption on goods and services. A share of household financial savings goes towards government borrowings.
- Dated securities form 48.8% of Government's Internal Debt.

15. 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

Solution

- The Contempt of Courts Act, 1971 was passed by the Parliament in December 1971 and it came into force w.e.f. 24th December, 1971.
- This Committee was headed by the then Additional Solicitor General of India namely Shri.S.H.Sanyal.

- Article 215: High Courts to be courts of record Every High Court shall be a court of record and shall have all the powers of such a court including the power to punish for contempt of itself.
- Thus, Article 129 and 215 of the Constitution of India are empowering courts (Supreme Court and High Court) to punish for every act of contempt.
- In India, the concept of Contempt of Court is defined in Section 2 (a) of the Contempt of Courts Act, 1971 which has broadly describe it as civil contempt or criminal contempt.
- The Parliament of India is vested with powers to make laws on Contempt of court. Consequent to this power, it has enacted Contempt of courts act, 1971.

16. **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

Solution

- Advocates as law enforcers carry out their roles and functions independently to represent the interests of the people and are not affected by state power. Because of that advocates can be interpreted to have their point of view, with an objective way of thinking.
- A lawyer is a basic term that refers to any person who has a law degree.

- The word Advocate is usually used for a lawyer only. This is a person who has completed a law degree and eligible to stand in court on behalf of his/her clients.
- If a Law Graduate work in the corporate field then he has to surrender his Sanad. Thus Law Graduates working in Corporate Fields are not eligible to appear in the courts of law. Thus Corporate Lawyers cannot be called Advocates.
- The Bar council can lay down standards which a law degree must fulfill before it can be recognized by it for enrolment into the legal profession.
- Bar Councils have the power to give recognition of law colleges.

17. **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

Solution

- The Tea Board is functioning as a statutory body of the Central Government under the Ministry of Commerce. Hence, Statement 1 is correct and Statement 2 is not correct.
- Its headquarters is located in Kolkata. Hence, Statement 3 is not correct.
- The Board is constituted of 31 members (including the 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.
 - The offices are located in Kolkata, London, Moscow, and Dubai.
- Hence, Statement 4 is correct.
- The Tea Board had an office in New York City in the 1960s and 70s.

18. 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.

Solution

- Greenwashing is the process of conveying a false impression or providing misleading information about how a company's products are more environmentally sound.
- Greenwashing is considered an unsubstantiated claim to deceive consumers into believing that a company's products are environmentally friendly.
- Greenwashing is also called "green sheen".

19. 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 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

Solution

- Constitution amendment bill can be introduced either by a minister or by a private member and does not require prior permission of the president.
- The 24th Constitutional Amendment Act of the Indian Constitution makes it obligatory for the President to give his assent when a

Constitution Amendment Bill is presented to him. Therefore, the President has no veto power with respect to Amendment Bill.

- There is no provision for a joint sitting in case of a disagreement between both Houses. Money Bill (Article 110): As per the Constitution, money bills require the Lok Sabha's approval only.

20. 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

Solution

The Indian Constitution does not categorize ministers into ranks, however, in practice seen in India, ministers are of four types:

1. Cabinet Ministers—He is present and he participates in every meeting of the Cabinet.
2. Minister of State with independent charge—He is a Minister of State who does not work under a Cabinet Minister. When any matter

concerning his Department is on the agenda of the Cabinet, he is invited to attend the meeting.

3. Minister of State—He is a Minister who does not have independent charge of any Department and works under a Cabinet Minister. The work to such Minister is allotted by his Cabinet Minister.
 4. Deputy Minister—He is a Minister who works under a Cabinet Minister or a Minister of State with independent charge. His work is allotted by the Minister under whom he is working.
- The total number of ministers in the Cabinet, including the Prime Minister, cannot exceed 15% of the total number of members of the Lok Sabha.

21. Consider the following statement:

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

Solution

- High clouds are often thin and do not reflect very much. They let lots of the Sun's warmth in. Low clouds are often quite thick and reflect lots of sunlight back into space.
- The main difference between high and low clouds is that the high clouds are colder. This means that they radiate less energy into space than the lower, warmer clouds. Therefore, high clouds work to "trap" more energy than low clouds.

- High clouds are not good at reflecting short waves. But, they are very good at blocking long waves. This also traps heat. Thus, high clouds will cause a warming of the Earth's surface. Hence, Statement 2 is not correct.
- Low clouds are excellent reflectors. But, they don't stop the longwave energy from escaping to space. Therefore, low clouds help to cool the Earth. Hence, Statement 1 is not correct.

22. 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

Solution

- In India, a motion of no confidence can be introduced only in the Lok Sabha (the lower house of the Parliament of India) and is admitted for discussion when at least 50 percent of members present and voting (Simple Majority) to support the motion (under Rule 198 of Lok Sabha Rules.)
- The Constitution of India does not mention about either a Confidence or a No Confidence Motion.

- Although, Article 75 does specify that the Council of Ministers shall be collectively responsible to the Lok Sabha.

23. **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

Solution

- The anti-defection law punishes individual MPs/MLAs for leaving one party for another. It allows a group of MP/MLAs to join (i.e. merge with) another political party without inviting the penalty for defection.
- In the case of Nominated legislators, the law specifies that they can join a political party within 6 months of being appointed to the House, and not after such time.

- Under the anti-defection law, the power to decide the disqualification of an MP or MLA rests with the presiding officer of the legislature. The law does not specify a time frame in which such a decision has to be made.

24. 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

D Neither 1 nor 2

Solution

- The Attorney General of India is the Indian Government's Chief legal adviser and he is the primary lawyer in the Supreme Court of India.
- He is appointed by the President under Article 76 (1) of the Constitution and holds office during the pleasure of the president.
- He can attend the meetings of both houses of the Parliament but cannot vote there.

- The Constitution mentions no specified tenure of Attorney General. Similarly, the Constitution also does not mention the procedure and ground of his removal.

25. **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

Solution

- The purpose of the Writ of Mandamus is to compel an inferior court or an individual to perform their duty. The duty must be imposed by the Constitution or some law.
- This writ is issued by the Supreme Court or High Court when any court, government, corporation or any authority having a public or

statutory duty fails to perform its duties.

- 'Mandamus' will not lie against a private individual or organisation unless they are entrusted with a public duty.
- In *G. Venkateshwara Rao v. Government of Andhra Pradesh* AIR 1966, SC 828, the court held that a private person may file an application for a writ of Quo Warranto. It is not required that this person is personally affected or interested in the case. The office must be public and it must be created by a statute or by the constitution itself.

26. 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 only

B 2 only

C 2 and 3 only

D 3 only

Solution

- Bidibidi became the World's second-largest refugee settlement in the World and the biggest in Africa.
- Statement 1 is incorrect: Bidibidi is a large refugee settlement in Yumbe district of Uganda.
- Statement 2 is correct: Bidibidi is home to more than 270,000 refugees mostly from South Sudan.

- Statement 3 is correct: Dadaab refugee (Kenya) complex consists of three camps. The three Dadaab camps are Dagahaley, Ifo and Hagadera. The first two are located in Lagdera (Dadaab) district while Hagadera is located in the neighbouring Fafi district. 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 130,000 refugees arrived, fleeing drought and famine in southern Somalia.

27. **2. 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

Solution

- The Ayushman Bharat Digital Mission (ABDM) aims to develop the backbone necessary to support the integrated digital health infrastructure of the country.
- It will bridge the existing gap amongst different stakeholders of Healthcare ecosystem through digital highways.
- Under the mission, citizens will be able to create their Ayushman Bharat health account numbers, to which their digital health records

can be linked.

- Private and public hospitals must adopt it.

28. 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

Solution

- 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
- No appeal lies to the Speaker against a ruling given by the Deputy Speaker or any person presiding over a sitting of the House in the absence of the Speaker.
- There is a mandatory provision to have the posts of Speaker and the Deputy Speaker filled without delay.
- In any case, the Speaker Lok Sabha is on record that it is not his job to appoint the Dy Speaker but of the House to choose one.

29. 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 only

B 1 and 3 only

C 2 and 5 only

D 3,4 and 5 only

Solution

- 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 Turkey.

- During the 7th Summit held in Baku in October 2019, Uzbekistan joined as a full member.

30. 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

Solution

- CH₄ and N₂O gases are simultaneously emitted from rice fields to the atmosphere due to their favorable production, consumption, and transport systems.
- Since rice fields are a major source of both methane (CH₄) and nitrous oxide (N₂O), the global warming potential (GWP) of rice crops is much higher than that of other crops.
- More than 80% of both N₂O and CH₄ was emitted through rice plants.

31. "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

Solution

- System of Rice Intensification (SRI), an innovation in rice cultivation, is found to increase the factor productivity and reduce the cost of cultivation in ways that benefit the farmers especially of resource poor.
- Studies in many countries including India have demonstrated that there is enough scope to reduce the cost of cultivation, increase the yields and income per unit area by adopting SRI method of rice cultivation.

- SRI relies mostly on organic fertilization, methane emissions are greatly reduced without offsetting increases in nitrous oxide. The opportunity for making savings in electricity, groundwater, seeds, etc. can justify more robust planning efforts for the promotion of System of Rice Intensification .

32. 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

Solution

- Lake Faguibine is a lake in Mali on the southern edge of the Sahara Desert situated 80 km west of Timbuktu and 75 km north of the Niger River to which it is connected by a system of smaller lakes and channels.
- Since the Sahel drought of the 1970s and 1980s the lake has been mostly dry.
- In 2021, Lake Faguibine is entirely dry.
- A gas emanating from the dry ground destroys the remaining vegetation and renders the soil unfit for cultivation.

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

A Cauvery

B Manjira

C Pennar

D Tungabhadra

Solution

- Situated on the banks of river Pennar, Gandikota derives its name from two Telugu words ‘Gandi’ meaning gorge and, ‘kota’ meaning fort.
- The village is majorly known for housing the spectacular gorge which is famously adjudged as the Grand Canyon of India.
- It is also known as the Hidden Grand Canyon of India as it isn’t very well known around the country.

34. 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/sre correct?

A 1 and 2

B 2 only

C 1 and 3

D 3 only

Solution

- Statement 1 is incorrect: Rajasthan tops the list of solar park installations in the country followed by Karnataka and then Andhra Pradesh. Bhadla Solar Park in Rajasthan, with a capacity of 2245 MW, is the world's largest solar park.
- Statement 2 is correct: Cochin International Airport, India's first airport built under a public-private-partnership (PPP) model, becomes the first airport in the world that operates completely on solar power. This plant is the first Megawatt scale installation of a Solar PV system in the State of Kerala

- Statement 3 is incorrect: Andhra Pradesh is now home to India's largest floating solar power plant. State-run NTPC started operations at India's largest floating solar PV project at its Simhadri thermal station in Visakhapatnam.

35. 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

Solution

- Namcha Barwa or Namchabarwa is a mountain peak lying in Tibet in the region of Pemako.
- Nanda Devi peak forms a part of Kumaon Himalayas.
- Nokrek is the highest peak in the Garo Hills range.

36. 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

Solution

- The Levant is an approximate historical geographical term referring to a large area in the Eastern Mediterranean region of Western Asia.
- The Levant has been described as the "crossroads of western Asia, the eastern Mediterranean, and northeast Africa ", and in geological (tectonic) terms as the "northwest of the Arabian plate ".
- The populations of the Levant share not only the geographic position, but cuisine, some customs, and history.

37. 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

Solution

- Afghanistan, officially the Islamic Republic of Afghanistan, a mountainous landlocked country in southern Central Asia.
- It borders Tajikistan, Turkmenistan, and Uzbekistan to the north, Iran to the west, Pakistan to the east and south.
- It has a small border section with China and India (disputed because it's in Pakistan-occupied Kashmir) to the northeast.

38. 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

Solution

- Statement 1 is correct: According to Article 3 under section 2 of United nations conventions (UNCLOS) regarding the territorial limits of the 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.

- Statement 2 is correct: According to Article 17 under section 3 of United Nations Conventions (UNCLOS) ships of all States, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea.
- Statement 3 is correct: The 1982 United Nations Convention on the Law of the Sea (UNCLOS) defines an Exclusive Economic Zone (EEZ). It is an area that shall not extend beyond 200 nautical miles from the baselines. The EEZ is measured from the breadth of the territorial sea.

39. **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

Solution

- Monazite is a rare-earth element-rich phosphate mineral that is predominantly reddish-brown in colour.
- Thorium content of monazite is variable and sometimes can be up to 20–30%.

- Monazite is an atomic mineral that occurs naturally in the Indian coastal sands . But not in 'entire Indian coastal sands in India.'
- Monazite is a prescribed substance under the Atomic Energy Act 1962.
- Since Monazite is a 'prescribed substance', the Department of Atomic Energy (DAE), Government of India, as a policy, has restricted all activities in respect of this substance to Government entities only.

40. Which one of the 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.

Solution

- Senkaku Islands are a group of uninhabited islands in the East China Sea.
- Japan and China claim the uninhabited islands, known as the Senkaku in Japan and Tiaoyu in China, as their own, but Japan has administered them since 1972.
- The Senkaku/Diaoyu Islands were formally claimed by Japan in 1895. After Japan's defeat in World War II, the island chain was

controlled by the US until 1971 before its return. Since then, Japan has administered the island chains.

- China began to reassert claims over the Senkaku/Diaoyu Islands in the 1970s, citing historic rights to the area. However, Japan does not recognise Chinese claims.

41. **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

Solution

- The longest day of the year, referred to as the summer solstice, occurs in the Northern Hemisphere on June 20th or 21st each year.
- The name "solstice" comes from the Latin word "sol" which means sun and sistere which means standstill.
- It occurs when the sun is directly over the Tropic of Cancer, or more specifically right over 23.5 degree north latitude.

42. 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

Solution

- Hokera Wetland is a conservation reserve under the Jammu and Kashmir Wildlife (protection) Act, 1978.
- Renuka lake is in the Sirmour district of Himachal Pradesh in India.
- Rudrasagar Lake, also known as Twijilikma, is a lake located in Melaghar, Tripura, India.

- Sasthamcotta Lake or Sasthamkotta Lake, also categorized as a wetland, is the largest fresh water lake in Kerala.

43. Consider the following:

1. Arogya 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

Solution

- Open source projects are publicly available and accessible, promoting collaborative participation, rapid prototyping, transparency, meritocracy, and community-oriented development.
- Aarogya Setu is a mobile application developed by the Government of India which connects the various essential health services with the people of India.

- The government of India developed an end-to-end vaccination platform called CoWIN.
- DigiLocker is an Indian digitization online service provided by Ministry of Electronics and Information Technology, Government of India under its Digital India initiative.
- The DIKSHA platform offers engaging learning material, relevant to the prescribed school curriculum, to teachers, students and parents.

44. Consider the following pairs:

Country	Important reason for being in the news recently
1.Chad	Setting up of permanent military base in 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 pair

C Only three pair

D All four pairs

Solution

- **Pair 1 is incorrectly matched:** Classified American intelligence reports suggest China intends to establish its first permanent military presence on the Atlantic Ocean in the tiny Central African country of Equatorial Guinea, according to U.S. officials. China does not have any permanent military base in Chad. In 2017, in the middle of its

three-year ramping up of military assistance and economic investment, China established its first overseas military base in Djibouti, on the coast of the Horn of Africa.

- **Pair 2 is correctly matched:** Guinean special forces in September 2021 staged a coup, capturing President Alpha Conde and announcing a nationwide curfew “until further notice” as well as the replacement of governors by the military. After putting Guinea back under military rule for the first time in over a decade, the junta said Guinea’s governors were to be replaced by regional commanders. A nightly curfew was put in place, and the country’s constitution and National Assembly were both dissolved.
- **Pair 3 is correctly matched:** The Lebanese government’s decision to impose new taxes in October 2019 sparked nation-wide protests by a population exhausted by poor public services, worried about increasing national debt and frustrated by widespread corruption. Since then, Lebanese politics have been marked by political deadlock that has prevented successive governments from implementing urgent reforms. Lebanon’s severe and prolonged economic depression is, according to the World Bank, ‘likely to rank in the top 10, possibly top 3, most severe crisis episodes globally since the mid-nineteenth century’. Poverty in Lebanon has spread dramatically over the past year and now affects about 74 % of the population.
- **Pair 4 is correctly matched:** Tunisian President Kais Saied on March 2022 announced that he was dissolving the suspended parliament. The decision came after 124 of 217 members of parliament held an online meeting despite the suspension. Tunisian President Kais Saied slammed what he called a “failed coup attempt” after lawmakers convened online and voted to repeal presidential decrees that gave him near-total power.

45. **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 be 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

Solution

- Web 3.0 is also called the Internet 3.0, and it normally refers to the third generation of Internet technology.
- Web 3.0 allows for more sophisticated and advanced interaction between devices and users.
- In Web 3.0, users engage with other users on a peer-to-peer blockchain-based social network.
- Web 3.0 eliminates the role of the intermediary.

46. **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

Solution

- SaaS solutions can be accessed through a web browser on almost any device, which results in great cross-platform compatibility.
- This allows users to access information from anywhere even using their mobile devices, which boosts productivity and efficiency.
- Web-based email service such as Outlook, Hotmail, or Yahoo! Mail are form of SaaS. With these services, logging into your account over the Internet, often from a web browser.

47. Consider the following pairs:

Region often mentioned in the news	Country
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 pair

C Only three pair

D All four pairs

Solution

- Anatolia constitutes the major part of modern-day Turkey.
- Amharas are a Semitic-speaking ethnic group which is indigenous to Ethiopia.
- Cabo Delgado is the northernmost province of Mozambique.
- Catalonia is in northeastern Spain.

48. 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.

Solution

- The Fractional Orbital Bombardment System (FOBS) was a Soviet ICBM program in the 1960s that after launch would go into a low Earth orbit and would then de-orbit for an attack.
- It had no range limit and the orbital flight path would not reveal the target location.
- In Fractional Orbital Bombardment System, missile is put into a stable orbit around the Earth and deorbits over a target on the Earth.

49. 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

Solution

- Classical computers that we use today can only encode information in bits that take the value of 1 or 0. This restricts their ability.
- Quantum computing, on the other hand, uses quantum bits or qubits.
- In quantum computing, a qubit or quantum bit (sometimes qbit) is the basic unit of quantum information .

50. 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

Solution

- Closed-circuit television (CCTV), also known as video surveillance, is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors.
- Radio-frequency identification (RFID) uses electromagnetic fields to automatically identify and track tags attached to objects. An RFID system consists of a tiny radio transponder, a radio receiver and transmitter.

- A wireless local area network (WLAN) is a wireless distribution method for two or more devices. WLANs use high-frequency radio waves and often include an access point to the Internet.

51. 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

Solution

- In medicine, biofilms form on medical implants and within human tissue as in cystic fibrosis; in industry they cover equipment surfaces.
- Biofilms can form on food and food processing surfaces.
- Biofilm-associated resistance to antimicrobial agents begins at the attachment phase and increases as the biofilm ages.

52. 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

Solution

1. Any wild animal killed or wounded in defence of any person shall be Government property.
2. The Chief Wild Life 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 diseased 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.

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

A Ant

B Cockroach

C Crab

D Spider

Solution

1. The ant–fungus mutualism is a symbiosis seen between certain ant and fungal species, in which ants actively cultivate fungus much like humans farm crops as a food source.
2. In some species, the ants and fungi are dependent on each other for survival.
3. Ants are not the only ground-dwelling arthropods which have developed symbioses with fungi. A mutualism with fungi is also noted in some species of termites in Africa.

54. 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

Solution

- Probiotics are made of good live bacteria and/or yeasts that naturally live in your body.
- Probiotics are microorganisms naturally present in the digestive tract that aid in digestion and reduce inflammation.
- There is evidence that probiotics can alleviate symptoms of lactose intolerance.
- Yogurt is a well-known food source of probiotics, beneficial bacteria that promote health. Research studies have shown that people with

lactose intolerance, can tolerate yoghurt better than milk.

55. 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

Solution

- Serum Institute, which produces AstraZeneca's COVID-19 vaccine under the brand name Covishield, using mRNA platform.
- The Sputnik V vaccine is based on a human adenovirus vector platform.
- Covaxin (codenamed as BBV152) is a whole inactivated virus-based COVID-19 vaccine developed by Bharat Biotech in collaboration

with the Indian Council of Medical Research - National Institute of
Virology.

56. In the Government of India Act 1919, the functions of Provincial Government 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 1,2,3

B 2,3,4

C 1,3,4

D 1,2,4

Solution

- Local self-Government is under the "Transferred" subject
- Transferred subjects: (i.e, those under control of Indian ministers) local self government, education, public health, public works, agriculture, forests and fisheries
- Reserved subjects: law & order include Justice, police, Finance, Land revenue, Irrigation

57. 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

Solution

- A solar flare is an intense localized eruption of electromagnetic radiation in the Sun's atmosphere.

If a major solar storm (solar-flare) reaches the Earth :

1. GPS and navigation systems could fail.
2. Power grids could be damaged.
3. Intense auroras could occur over much of the Earth.
4. Orbits of the satellites could be disturbed.
5. Shortwave radio communication of the aircraft flying over polar regions could be interrupted.

58. Consider the following pairs:

Site of Ashoka's major rock edicts - Location in the State of

1. Dhauli - 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

Solution

1. Dhauli edict is in Odisha.
2. Erragudi is in Anantapur District of Andhra Pradesh.
3. Jaugada is in the Ganjam district in Odisha.
4. Kalsi is in Dehradun District of Uttarakhand.

59. In medieval India, the term "Fanam" referred to

A Clothing

B Coins

C Ornaments

D Weapons

Solution

- Fanam is referred as Coin
- a small gold or silver coin formerly on widespread use in Southern India
- mainly in Travancore and Madras presidency

60. 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

Solution

1. Nannuka was the founder of the Chandela dynasty.
2. Jayashakti was a 9th-century ruler from the Chandela dynasty.
3. Nagabhata II was an Indian Emperor from Gurjara-Pratihara dynasty.
4. Bhoja was an Indian King from the Paramara dynasty.

61. "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

Solution

- The Climate Action Tracker is an independent scientific analysis that tracks government climate action and measures it against the globally agreed Paris Agreement aim of "holding warming well below 2°C and pursuing efforts to limit warming to 1.5°C."
- A collaboration of two organisations, Climate Analytics and NewClimate Institute, the CAT has been providing this independent analysis to policymakers since 2009.
- 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.

- CAT further develops sectoral analysis to illustrate the required pathways for meeting the global temperature goals.
- CAT covers all the biggest emitters and a representative sample of smaller emitters covering about 85% of global emissions and approximately 70% of the global population.
- The aim of the Climate Action Tracker (CAT) project is to provide policymakers, civil society and the media that inform them with an up-to-date assessment of countries' individual reduction targets and with an overview of their combined effects at the global level.

62. 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 to driving companies committed innovation in energy efficiency and while increasing competitiveness 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

Solution

- The Climate Group is a non-profit organization that works with businesses and government leaders around the world to address climate change. Hence statement 1 is correct.
- Their goal is for a world of net-zero carbon emissions by 2050, with greater prosperity for all.
- The group also has programs focusing on renewable energy and reducing greenhouse gas emissions.
- The Climate Group is the Secretariat for the Under 2 Coalition, an alliance of state and regional governments around the world that are committed to reducing their greenhouse gas emissions to net-zero levels by 2050. Hence statement 5 is incorrect.
- The Climate Group was initiated in 2003 and launched in 2004 by ex-CEO and co-founder Steve Howard.
- The Climate Group states that it functions independently of any corporate and government entities.
- EP100 is a global initiative led by the international non-profit Climate Group, bringing together over 120 energy smart businesses committed to measuring and reporting on energy efficiency improvements. Hence statement 3 is correct.
- The Under2 Coalition is the largest global network of state and regional governments committed to reducing emissions in line with the Paris Agreement.
- EP100, which The Climate Group serves as the Secretariat for, offers a forum for sharing best practices and showcasing the leadership of companies making progress towards bold, public commitments on energy productivity.
- Indian companies like Dalmia cement, Godrej and Boyce, JSW cement, Mahindra and Mahindra, Mahindra heavy Engines, Swaraj Engines, and UltraTech Cement are the Members of EP100. Hence statement 4 is correct.

63. 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

 ENTRI

Solution

- The Ghadr Party; was a revolutionary group organised around a weekly newspaper The Ghadr with its headquarters at San Francisco, U.S.A.
- Rashbihari Bose and Sachin Sanyal were led the movement
- Jogesh chandra chatterjee & Barindra kumar Gosh were member of Anushilan Samiti.
- Jogesh Chandra chatterjee was one of the founder members of HRA (Hindustan Republican Association)

64. Which one of the following statements 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.

Solution

- Statement a is incorrect. Sangam poems contain several incidental references to material culture, often as part of the poem's setting or in similes and allusions. There are references to farming (rice and barley are mentioned), cattle rearing, and fishing. There are also several references to iron. Kuruntokai 16 refers to iron-tipped arrows. Akananuru 72 compares a bear digging out the comb from a termite mound, the front of which is swarming with fireflies glimmering like sparks from beaten metal, to a blacksmith forging iron.
- Statement b is correct. The social classification of varna was known to Sangam poets. There is mention of the Arashar (kings), Vaishiyar (traders), and Velalar (farmers). The Brahmanas are also mentioned,

some of them closely associated with the courts of kings and patronized by ruling elites. However, the four-fold varna classification had little application to ancient Tamil society. The jati system was not a feature of this society either.

- Statement c is incorrect. Sangam Poems are pervaded with a warrior ethic. Puram in sangam literature are the War Poems that deal with the outer life of people. Speak of public celebration of the feats of the heroes even the death of heroes in wars.
- Statement d is incorrect. Sangam literature reflects a belief in sacred or magical forces called ananku that were supposed to inhabit various objects. The job of carrying out rites and rituals to control the ananku was that of groups such as the pariyans, tutiyans, panas and velans. They were associated with ritualistic singing, dancing, and trances, and with lighting the cremation fire and worshipping memorial stones.

65. 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 a vital role in maintaining sedimentation balance and soil stabilization.

D

Aquatic plants absorb heavy metals and excess nutrients.

Solution

- The kidney produce urine by removing toxic waste products and excess water from the body.
- Aquatic plants absorb heavy metals and excess nutrients.
- They remove excess nutrients from the water as well as oil and bacteria such as E. coli and Salmonella.
- Bulrushes (*Scirpus* spp.) and rushes (*Juncus* spp.) are excellent water purifiers.

66. 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 $\mu\text{g}/\text{m}^3$ and annual mean of PM should not exceed 5 $\mu\text{g}/\text{m}^3$.
2. In a year, the highest levels of ozone pollution occur during the periods of inclement weather.
3. PM₁₀ 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

Solution

- WHO's new guidelines recommend air quality levels for six pollutants — particulate matter (PM 2.5 & PM₁₀), ozone (O₃), nitrogen dioxide (NO₂) sulfur dioxide (SO₂) and carbon monoxide (CO).

- The annual average for PM2.5 should not exceed 5 micrograms per cubic metre of air, while the 24- hour average should not exceed 15 micrograms per cubic metre
- The highest levels of ozone pollution occur during periods of sunny weather.
- Ozone triggers asthma because it is very irritating to the lungs and airways. It is well known that ozone concentration is directly related to asthma attacks.
- It is PM2.5 can penetrate the lung barrier and enter the blood system.

67. "Yogavasistha" was translated into Persian by Nizamuddin Panipati during the reign of:

A Akbar

B Humayun

C Shahjahan

D Aurangzeb

Solution

- Yoga Vasistha, also known as Vasistha's Yoga, is a Hindu spiritual text traditionally attributed to Valmiki.
- It recounts a discourse of the sage Vasistha to a young Prince Rama.
- "Yogavasistha" was translated into Persian by Nizamuddin Panipati during the reign of Akbar.

68. With reference to "Guchhi" 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

Solution

- Statement 1 is correct: Guchhi mushroom is a species of fungus in the family Morchellaceae of the Ascomycota. They are pale yellow in colour with large pits and ridges on the surface of the cap, raised on a large white stem.
- Statement 2 is correct: It is grown in the foothills of Himalayas in Himachal Pradesh, Uttaranchal, and Jammu and Kashmir.

- Statement 3 is incorrect: The mushrooms cannot be cultivated commercially and grow in conifer forests across temperature regions. It takes months for villagers to collect enough of these mushrooms, dry them and bring them to the market. These mushrooms are also replete with health benefits. They are rich in potassium, vitamins and copper. They are also a rich source of vitamin D apart from several B-vitamins.

69. **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

Solution

- Statement 1 is correct: PET fibres make them highly resistant to deformation, so they impart excellent resistance to wrinkling in fabrics. 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.

- Statement 2 is incorrect: Maharashtra government has announced the ban on sale of alcohol in PET bottles from April 1. Plastic packaging is dangerous to human health and the country liquor and country made foreign liquor cannot be sold in such bottles. PET has become widely used in carbonated-beverage bottles and in jars for food processed at low temperatures. The low softening temperature of PET—approximately 70 °C (160 °F)—prevents it from being used as a container for hot foods.
- Statement 3 is correct: Polyethylene terephthalate is the most widely recycled plastic. For instance, PET bottles and containers are commonly melted down and spun into fibres for fibrefill or carpets.
- Statement 4 is incorrect: Polyethylene, like other plastics, is not inert and is known to release additives and other degradation products into the environment throughout its lifetime. For example, the additive bisphenol-A used in the manufacture of many plastic products is leached as plastics age, and hydrocarbon gases are produced during high-temperature decomposition (>202°C).

70. Which of the following is not a bird ?

A Golden Mahseer

B Indian Nightjar

C Spoonbill

D White Ibis

Solution

- Golden Mahseer is a large cyprinid and known to be the toughest among the fresh water sport fish.
- It lives in fast-moving waters, inhabiting hill streams with a rocky and stony substrate.
- They can be found in temperatures between 5°C and 25°C.

71. "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 residues

C Identification of areas for exploration/extraction of shale gas

D Providing salt licks for wild animals in forests/protected areas

Solution

- Biorock Technology is a new technique for coral reef restoration.
- Charged steel rods are formed into structures to enhance the settlement, growth, and health of aquatic organisms and their ecosystems.
- To build structures of any size or shape in the water, the Biorock technique employs electrically conductive materials such as plain steel.

72. **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.

Solution

- Ramanuja was deeply influenced by the Alvars.
- He firmly believed that intense devotion to Vishnu was the best means to attain salvation.
- He propounded the doctrine of Vishishtadvaita.
- The outdoor 216-ft Statue of Equality will be the world's second tallest statue featuring a sitting posture. It is composed of 'panchaloha', a combination of five metals comprising gold, silver, copper, brass, and zinc.
- Born in 1017 in Sri Perumbudur, Tamil Nadu, Sri Ramanujacharya liberated millions from social, cultural, gender, educational and economic discrimination with the foundational conviction that every

human is equal regardless of nationality, gender, race, caste, or
creed.

73. 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

Solution

- The Miyawaki forestation method is a unique way to create an urban forest and is pioneered by Japanese botanist Akira Miyawaki.
- With this method of plantation, an urban forest can grow within a short span of 20-30 years while a conventional forest takes around 200-300 years to grow naturally.
- 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.

74. **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

Solution

The main proposals of the Cripps mission were as follows:

- An Indian Union with a dominion status would be set up; it would be free to decide its relations with the Commonwealth and free to participate in the United Nations and other international bodies.
- After the end of the war, a constituent assembly would be convened to frame a new constitution. Members of this assembly would be

partly elected by the provincial assemblies through proportional representation and partly nominated by the princes. Hence, Statement 1 is incorrect

- The British government would accept the new constitution subject to two conditions: (i) any province not willing to join the Union could have a separate constitution and form a separate Union, and (ii) the new constitution-making body and the British government would negotiate a treaty to effect the transfer of power and to safeguard racial and religious minorities. Hence, Statement 2 is correct.
- In the meantime, defence of India would remain in British hands and the governor-general's powers would remain intact.

75. 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

Solution

- Statement 1 is correct. Located at Veraval in the western coast of Gujarat, the Somnath Temple is believed to be the first among the 12 jyotirlinga shrines of Shiva. The site, which was part of the erstwhile princely state of Junagadh, was also connected to Lord Krishna. The political history of the shrine is traced back to a thousand years when in 1024 CE, during the reign of the Chalukya king Bhima I it was attacked by Turkik ruler Mahmud of Ghazni.

- Statement 2 is correct. A description of the temple by Al-Biruni, an Arab traveller, was so glowing that it prompted a visit in 1024 by Mahmud of Ghazni.
- Statement 3 is incorrect. The later sources of history account for several desecrations by Muslims invaders during eleventh to eighteen century A.D. The temple was rebuilt every time with the reconstructive spirit of the people. 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.

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

1. Nettipakarana
2. Parishishtarparvan
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

Solution

- Nettipakarana: (The book of guidance) - account of Buddha's teachings
- Parishitaparvan (Sthaviravalicharita)- it is a 12 th century Sanskrit mahakavya by Hemachandra which details the histories of the earliest Jain teachers
- Avadanashataka - (century of Noble Deeds) is an anthology in sanskrit, Buddhist text

- Trishashtilakshana Mahapurana - Jain text composed largely by Acharya Jinasena

77. 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 pair

D All three pairs

Solution

- Pair 1 is incorrect: Āryadeva (3rd century), a disciple of Nāgārjuna, is a central figure in the development of early Indian Madhyamaka philosophy. The Madhyamaka school of Buddhism, the followers of which are called Mādhyamikas, was one of the two principal schools of Mahāyāna Buddhism

- Pair 2 is correct: Dignāga, (born c. 480 CE—died c. 540), was a Buddhist logician and author of the *Pramāṇasamuccaya* (“Compendium of the Means of True Knowledge”), a work that laid the foundations of Buddhist logic.
- Pair 3 is correct: Nathamuni founded a Sanskrit-Tamil school at Srirangam (Tamil Nadu state), which continues to be a great Vaishnavite centre in South India.

78. 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.

Solution

- T cells protect us from infection. In our daily lives, we're constantly exposed to pathogens, such as bacteria, viruses and fungi. Without T lymphocytes, also called T cells, every exposure could be life-threatening.
- T cells can wipe out infected or cancerous cells. They also direct the immune response by helping B lymphocytes to eliminate invading pathogens.
- B cells create antibodies. B lymphocytes, also called B cells, create a type of protein called an antibody. These antibodies bind to pathogens or to foreign substances, such as toxins, to neutralize them.
- For example, an antibody can bind to a virus, which prevents it from entering a normal cell and causing infection. B cells can also recruit

other cells to help destroy an infected cell.

79. **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

Solution

- Statement 1 is incorrect: The first Mongol invasion of India took place in the reign of Sultan Shams-ud-din Iltutmish.
- Statement 2 is correct: Alauddin established a huge permanent, standing army to satisfy his ambition of conquest and to protect the country from Mongol invasion.

- The Mongols attacked at the worst time possible for Alauddin Khilji – when he was busy laying siege to Chittor. This time the Mongols traveled light. An army of 12,000 under Targhi’s leadership moved to Delhi in a swift attack; many governors could not send their troops to Delhi in time.
- Alauddin Khilji was forced to retreat to Siri for about two months. The Mongols attacked and pillaged not only the surrounding areas, but Delhi itself. Alauddin Khilji continued to hold the fortress at Siri; Targhi withdrew the siege after a few months and left the area. Barani, a contemporary historian at that time, attributed this “marvel” to the prayers of the Sufi mystic Shaikh Nizamuddin Auliya.
- Statement 3 is incorrect: The next major Mongol invasion took place after the Khiljis had been replaced by the Tughlaq dynasty in the Sultanate. In 1327 the Chagatai Mongols under Tarmashirin, who had sent envoys to Delhi to negotiate peace the previous year, sacked the frontier towns of Lamghan and Multan and besieged Delhi. The Tughlaq ruler paid a large ransom to spare his Sultanate from further ravages. Muhammad bin Tughluq asked the Ilkhan Abu Sa’id to form an alliance against Tarmashirin, who had invaded Khorasan, but an attack didn’t materialize. Tarmashirin was a Buddhist who later converted to Islam. Religious tensions in the Chagatai Khanate were a divisive factor among the Mongols.

80. 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 only

D 2 and 3

Solution

- Statement 1 is incorrect: Naturally occurring nanoparticles can be found in volcanic ash, ocean spray, fine sand and dust, and even biological matter (e.g. viruses).
- Statement 2 is correct: The field of nanotechnology is being greatly explored by cosmetic industries in order to improve the efficacy of cosmetic products.

- The cosmetics are formulated by using different types of metal and metal oxide nanoparticles such as silver nanoparticles (AgNPs), gold nanoparticles (AuNPs) , titanium dioxide nanoparticles (TiO₂ NPs) etc.
- Statement 3 is correct: Inhaled nanoparticles can deposit in lungs, causing inflammation, fibrosis, asthma, and lesions. Links to lung cancer have also been reported.

81. 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

Solution

- DNA barcoding is a molecular technology that allows the identification of any biological species by amplifying, sequencing and querying the information from genic and/or intergenic standardized target regions belonging to the extranuclear genomes
- cpDNA and mtDNA barcoding protocols are being used more and more in the food industry and food supply chains for food labeling

- Carbon dating is a technique used to determine the approximate age of once-living materials. It is based on the decay rate of the radioactive carbon isotope C14, a form of carbon taken in by all living organisms while they are alive.

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

A Arab merchants

B Qalandars

C Persian calligraphists

D Sayyids

Solution

- The Sayyids were claimed to descent from the Prophet through his daughter Fatima. They Commanded special respect in Muslim society.
- Even the Timur protected the life of Sayyids during his invasion in India. Although his policy was one of general slaughter.
- The sayyids put on a pointed cap (kulah) and they were known as "Kulah Daran' during Delhi sultanate.

83. 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

Solution

- Statement 1 is Incorrect: Gajapati rulers ruled from 1434-1541, while the Dutch founded their first factory in Masaulipatam in Andhra Pradesh in 1605.
- Statement 2 is correct: In 1510 AD Alfonso de Albuquerque captured Goa from the Sultan of Bijapur, Ismail Adil Shah with the

help of Krishnadev raya (ruler of Vijaynagar empire). He is also known to have abolished the practice of Sati in Goa.

- Statement 3 is correct: On 22 August 1639, English official Francis Day obtained a grant of a 3-mile-long strip of land for the East India Company from the local ruler, Damarla Venkatadri Nayaka, the Nayaka of Wandiwash. (Part of Vijaynagar empire)

84. 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, 3

Solution

- Statement 1 is correct: There are several types of enslavement that is given in Arthashastra. One of the prime methods of enslavement was to have a person as a slave as a result of judicial punishment for some sort of criminal demeanor.
- Statement 2 is correct: There were variety of protection offered to the slaves, especially to the women slaves. As per the Arthashastra, When a child is begotten on a female slave by her master, both the

child and its mother shall at once be recognised as free.

- Statement 3 is correct: According to the Arthshastra, 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.

85. 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 1,2,3

Solution

- Statement 1 is correct: Tight monetary policy of the US federal Reserve could lead to capital flight.
- Statement 2 is correct: Interest risk associated with capital flight: capital flight increases the interest rate on firms with Existing borrowings.
- Statement 3 is incorrect: Capital Risk associated with capital flight: Devaluation of domestic currency will increase the risk with

external commercial borrowings. It will increase the liability of domestic firms in terms of domestic currency.

86. Consider the following:

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

Excess of which one 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

Solution

- The pollutants, Sulphur dioxide, nitrogen oxide which are released by burning of coal and petroleum products combine with moisture in the air and rain water and produce Sulphuric acid and nitric acid respectively and fall along with the rain called as acid rain.
- The acid rain pollute soil, water and reduces the growth of crops and fishes in river, streams, canals and ponds.
- It also stops the growth of plants and destroys: the buildings made of marble and stones and statues made up of metals, Acid rain can

cause respiratory problems such as asthma, bronchitis and emphysema.

87. 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

Solution

- Statement 1 is incorrect: 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.
- Credit Rating Agencies (CRA) analyze a debtor's ability to repay the debt and also rate their credit risk.
- There are a total of six credit agencies in India viz, CRISIL, CARE, ICRA, SMREA, Brickwork Rating, and India Rating and Research Pvt. Ltd.

- Statement 2 is correct: ICRA Limited is a public limited company that was set up in 1991 in Gurugram. The company was formerly known as Investment Information and Credit Rating Agency of India Limited.
- Statement 3 is correct: Brickwork Ratings is recognised as external credit assessment agency (ECAI)
- Brickwork Rating was established in 2007 and is promoted by Canara Bank. It offers ratings for bank loans, SMEs, corporate governance rating, municipal corporation, capital market instrument, and financial institutions.

88. 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

Solution

- India is the second largest producer of tea in the world, producing an average 900,000 tons each year which is next to China, the top tea producer.
- Largest tea producing state in India is Assam.
- Other Tea-producing states in India are West Bengal, Tamil Nadu, Kerala, Tripura, Arunachal Pradesh, Himachal Pradesh, Karnataka, Sikkim, Nagaland, Uttarakhand, Manipur, Mizoram, Meghalaya, Bihar and Odisha.

- Andra pradesh is not a major tea producing state in India

89. **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

Solution

- Banks Board Bureau is a self-governing autonomous body of the Central Government.
- It is an advisory authority comprising eminent professionals and officials to improve the management of public sector banks.
- Statement 1 is incorrect: 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 is selected by the central government and RBI governor does not head it.

- Statement 2 and 3 are correct: Banks Board Bureau recommends for the selection of head for Public Sector Banks and other key personnel if required. It also develops strategies for raising capital and improving performance of PSBs.

90. **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

Solution

- Both the statements are correct.
- **Convertible bonds:** Convertible bonds are hybrid securities that offer investors the best of both stocks and bonds. Like any other kind of bond, they provide a guaranteed income stream and pay back the amount you originally lent the company.
- Convertible bonds typically carry lower interest rates payments than straight corporate bonds-the savings in interest expense can be significant.

- Governments might use indexation as a way to potentially alleviate the negative effects inflation can have on the recipients of transfer payments and entitlements. Social Security payments, for example, are indexed to the annual increase in the Consumer Price Index.

91. 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

Solution

- Option 1 is correct. The Asian Infrastructure Investment Bank (AIIB) is a multilateral development bank that aims to improve economic and social outcomes in Asia. India became a member in 2016.
- Option 2 is correct. The Missile Technology Control Regime (MTCR) is a multilateral export control regime whose members have an informal political understanding to limit the proliferation of missiles and missile technology. India became a member of the MTCR in 2016.

- Option 3 is correct. The Shanghai Cooperation Organisation (SCO) is a permanent intergovernmental international organisation, created on 15 June 2001 in Shanghai (China). India became its member in 2017.

92. 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

Solution

- Statement 1 is correct Vietnam is the fastest-growing of the world's economies, with a potential annual GDP growth rate of about 5.1% It has surpassed the growth rate of other Asian economies including India and China.

- The primary factor to Vietnam's economic growth is the amount of Foreign Direct Investment coming in from investors around the world, especially the Republic of Korea, Japan, and Singapore.
- Statement 2 is incorrect: Vietnam is a Marxist-Leninist one-party state based on democratic centralism. This means that only one political party, the Communist Party of Vietnam (Đảng Cộng Sản Việt Nam) is legally allowed to hold effective power.
- Statement 3 is correct: Vietnam's economic growth is linked to its integration with global supply chains and focus on exports.
- Statement 4 is correct: Vietnam has low labour costs and stable exchange rates which attract global investments.
- Statement 5 is incorrect: Their e-service sector isn't that productive

93. 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 RBI

Solution

- Statement D is correct,
- In India, MPC monetary Policy Committee responsible for maintaining price stability by controlling inflation
- Monetary Policy Committee (MPC), constituted under section 45ZB of the Reserve Bank of India Act, 1934,

94. **With reference to Non-Fungible Tokens (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 of commercial medium as a 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

Solution

- NFTs typically contain references to digital files such as photos, videos, and audio. Because NFTs are uniquely identifiable, they differ from cryptocurrencies, which are fungible.
- The market value of an NFT is associated with the digital file it references.
- Statement 3 is incorrect: Non-fungible tokens (NFTS) are cryptographic assets on a blockchain with unique identification

codes and metadata that distinguish them from each other. Unlike cryptocurrencies, they cannot be traded or exchanged at equivalency. This differs from fungible tokens like cryptocurrencies, which are identical to each other and, therefore, can serve as a medium for commercial transactions.

95. 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

Solution

- Ghataprabha - Krishna river - Karnataka
- Gandhi Sagar - Chambal river - Madhya Pradesh
- Indira Sagar - Narmada river - Madhya Pradesh
- Maithon - Barakar river- Jharkhand
- Maithon dam is largest dam in India terms of volume

96. 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 Manpower Information System

Solution

- Labour Bureau, an attached office under Ministry of Labour and Employment, was set up on 1st October 1946.
- It is entrusted with the work of compilation, collection, analysis and dissemination of statistics on different aspects of labour.
- It is a storehouse of 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.

97. 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

Solution

- Statement 1 is correct. Under Collection of Statistics Act, 2008 Coal Controller has been made the statistical authority with respect to coal and lignite statistics. Entrusted the responsibility of carrying out

Annual Coal & Lignite survey and publishing of Provisional Coal Statistics and Coal Directory of India.

- Statement 2 is correct. It is entrusted with the task of monitoring captive mines. Work such as permission for opening and reopening of coal mines... has been entrusted to CCO.
- Statement 3 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.
- Statement 4 is incorrect. Ensuring that coal mining companies deliver the coal to end users in the prescribed time is not the function of Coal Controller's Organization (CCO).

98. **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

Solution

- Option a is correct. The Fifth Schedule of the Constitution deals with the administration and control of Scheduled Areas as well as of Scheduled Tribes residing in any State other than the States of Assam, Meghalaya, Tripura and Mizoram.
- Governor can make regulations for the peace and good government of a scheduled area after consulting the tribes advisory council. Such regulations may prohibit or restrict the transfer of land by tribal to non tribal members or among members of the scheduled tribes, regulate the allotment of land to members of the scheduled tribes.

- Option b is incorrect. According to the provisions of Paragraph 4, under Article 244(1) of Fifth Schedule of the Constitution of India, the Tribes Advisory Councils (TAC) shall be established in each State having Scheduled Areas therein and, if the President so directs, also in any State having Scheduled Tribes but not Scheduled Areas. Tribal advisory council is an advisory body, not a governing body.
- Option c is incorrect. Bringing any particular area under the Fifth Schedule of the Constitution of India does not convert the area into a Union Territory.
- Option d is incorrect. Bringing any particular area under the Fifth Schedule of the Constitution of India does not get declared as a Special Category State.

99. Consider the following statements :

1. The India Sanitation Coalition is a sustainable platform to promote 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 Urban Affairs in Housing and 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

Solution

- Statement 1 is incorrect: ISC is a multi-stakeholder platform that brings together the private sector, government, financial institutions, civil society groups, media, donors/bi-lateral/multilateral, experts etc. to work in the sanitation space to drive sustainable sanitation through a partnership model.

- Statement 2 is incorrect: The National Institute of Urban Affairs (NIUA) is India's leading national think tank on urban planning and development. NIUA seeks to provide innovative solutions to address the challenges of a fast urbanising India.
- 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 gap in urban policy and planning.

100. 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

Solution

- Central Ground Water Authority has been constituted under Section 3 (3) of the Environment (Protection) Act, 1986
- Environment Protection Act was passed by the Parliament of India in the year of 1986. In the wake of the Bhopal Tragedy, the Government of India enacted the Environment Protection Act of 1986 under Article 253 of the Constitution. It was passed in March 1986 and came into force on 19th November 1986.
- The purpose of the Act is to implement the decisions of the United Nations Conference on the Human Environments they relate to the protection and improvement of the human environment and the prevention of hazards to human beings, other living creatures, plants and property.



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