



GOALTIDE UPSC PRELIMS TEST SERIES 2023-FULL LENGTH TEST 1

Q1. Consider the following statements.

1. The term of the member of Rajya Sabha elected in a bye-election is 6 years.
2. Both, Rajya Sabha and Legislative Council are not be subject to dissolution, but one-third of the members shall retire on the expiration of every second year for both the Houses.
3. In Rajya Sabha, Secretary-General is appointed by the Chairman and holds a rank equivalent to the minister in the House.

Which of the above statements is/are correct?

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

Solution: c

Explanation:

First statement is incorrect.

Term is six years; but a member elected in a bye-election serves for the remainder of the term of the vacancy caused.

Second statement is correct:

83. Duration of Houses of Parliament.—(1) The Council of States shall not be subject to dissolution, but as nearly as possible one-third of the members thereof shall retire as soon as may be on the expiration of every second year in accordance with the provisions made in that behalf by Parliament by law.

(2) The Legislative Council of a State shall not be subject to dissolution, but as nearly as possible one-third of the members thereof shall retire as soon as may be on the expiration of every second year in accordance with the provisions made in that behalf by Parliament by law.

Third is incorrect.

The Secretary-General is appointed by the Chairman, Rajya Sabha and holds a rank **equivalent to the Cabinet Secretary**, the highest civil servant of the Union Government.

Q2. With respect to nominated members in Parliament, consider the following statements.

1. A nominated member of Houses does not come under the purview of disqualification under Tenth Schedule.
2. Nominated members are part of electoral college for election of President.
3. In the case of a casual vacancy in the seat of a nominated member, a member chosen to fill a casual vacancy will serve for the remainder of his predecessor's term of office.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

First statement is incorrect:

A nominated member of a House **shall be disqualified for being a member of the House if he joins any political party after the expiry of six months** from the date on which he takes his seat.

Second statement is incorrect:

54. Election of President.—The President shall be elected by the members of an electoral college consisting of—

- (a) the elected members of both Houses of Parliament; and
- (b) the elected members of the Legislative Assemblies of the States.

²[*Explanation.*—In this article and in article 55, “State” includes the National Capital Territory of Delhi and the Union territory of *Pondicherry.]

Third statement is correct:

In the case of a casual vacancy in the seat of a nominated member, the term of office of the member nominated to fill that seat serves for the remainder of his predecessor's term of office.

Where it is written? It is under Section 154 of the Representation of the People Act 1951.

Representation of the People Act, 1951
(PART II.—Acts of Parliament)

(3) A member chosen to fill a casual vacancy shall be chosen to serve for the remainder of his predecessor's term of office.

Q3. With reference to the Supreme Court of India, consider the following statements:

1. Ad-hoc Judges can be appointed for clearing of a backlog of cases.
2. Ad-hoc Judges are deemed to be a Judge of the Supreme Court.

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: b

Explanation:

When there is a lack of quorum of the permanent Judges to hold or continue any session of the Supreme Court, the Chief Justice of India can appoint a Judge of a High Court as an ad hoc Judge of the Supreme Court for a temporary period. **So, statement 1 is incorrect.**

127. Appointment of *ad hoc* Judges.—(1) If at any time there should not be a quorum of the Judges of the Supreme Court available to hold or continue any session of the Court, ²[the National Judicial Appointments Commission on a reference made to it by the Chief Justice of India, may with the previous consent of the President] and after consultation with the Chief Justice of the High Court concerned, request in writing the attendance at the sittings of the Court, as an *ad hoc* Judge, for such period as may be necessary, of a Judge of a High Court duly qualified for appointment as a Judge of the Supreme Court to be designated by the Chief Justice of India.

(2) It shall be the duty of the Judge who has been so designated, in priority to other duties of his office, to attend the sittings of the Supreme Court at the time and for the period for which his attendance is required, and while so attending he shall have all the jurisdiction, powers and privileges, and shall discharge the duties, of a Judge of the Supreme Court.

The Judge so appointed should be qualified for appointment as a Judge of the Supreme Court. It is the duty of the Judge so appointed to attend the sittings of the Supreme Court, in priority to other duties of his office. **While so attending, he enjoys all the jurisdiction, powers and privileges (and discharges the duties) of a Judge of the Supreme Court. So, statement 2 is correct.**

Q4. As per the Constitution, under which of the following situations, the President of India may summon a joint sitting of both the Houses of Parliament?

1. If the party does not enjoy majority in both the Houses.
2. One House passes the Bill and the other House rejects the Bill.
3. One House passes the Bill and the other House does not pass it within six months from the date it received the Bill

Select the correct code.

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

Solution: b

Explanation:

There is no logic or reason to convene joint sitting if you don't enjoy majority.

108. Joint sitting of both Houses in certain cases.—(1) If after a Bill has been passed by one House and transmitted to the other House—

- ✓ (a) the Bill is rejected by the other House; or
- ✓ (b) the Houses have finally disagreed as to the amendments to be made in the Bill; or
- ✓ (c) more than six months elapse from the date of the reception of the Bill by the other House without the Bill being passed by it,

Q5. With respect to the money bills, consider the following statements.

1. If any question arises whether a Bill is a Money Bill or not, the decision of the leader of the House shall be final.
2. Council of States can only discuss, but cannot recommend amendments to the Money bill passed by House of People.

3. When Money bill is presented to the President for assent, the certificate of the Speaker of the Lok Sabha signed by him that it is a Money Bill is mandatory.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

Second statement is incorrect: They can recommend, it will be accepted or not, that is different thing.

109. Special procedure in respect of Money Bills.—(1) A Money Bill shall not be introduced in the Council of States.

(2) After a Money Bill has been passed by the House of the People it shall be transmitted to the Council of States for its recommendations and the Council of States shall within a period of fourteen days from the date of its receipt of the Bill return the Bill to the House of the People with its recommendations and the House of the People may thereupon either accept or reject all or any of the recommendations of the Council of States.

(3) If the House of the People accepts any of the recommendations of the Council of States, the Money Bill shall be deemed to have been passed by both Houses with the amendments recommended by the Council of States and accepted by the House of the People.

(4) If the House of the People does not accept any of the recommendations of the Council of States, the Money Bill shall be deemed to have been passed by both Houses in the form in which it was passed by the House of the People without any of the amendments recommended by the Council of States.

(5) If a Money Bill passed by the House of the People and transmitted to the Council of States for its recommendations is not returned to the House of the People within the said period of fourteen days, it shall be deemed to have been passed by both Houses at the expiration of the said period in the form in which it was passed by the House of the People.

First is incorrect. Third is correct statement.

(5) If any question arises whether a Bill is a Money Bill or not, the decision of the Speaker of the House of the People thereon shall be final.

(4) There shall be endorsed on every Money Bill when it is transmitted to the Council of States under article 109, and when it is presented to the President for assent under article 111, the certificate of the Speaker of the House of the People signed by him that it is a Money Bill.

Q6. Consider the following statements.

1. Text of Oath of Affirmation by the Vice-President is read as: "*will to the best of my ability preserve, protect and defend the Constitution and the law and that I will devote myself to the service and well-being of the people of India.*".
2. Vice-President can be removed from his office by a resolution of the Council of States passed by a majority of total strength of the House.
3. All doubts and disputes arising in connection with the election of the Vice-President are enquired into and decided by the Supreme Court of India whose decision is final.

Which of the above statements is/are correct?

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

Solution: a

Explanation:

First and second are incorrect.

To preserve, protect and defend.....is taken only by President and Governor:

159. Oath or affirmation by the Governor.—Every Governor and every person discharging the functions of the Governor shall, before entering upon his office, make and subscribe in the presence of the Chief Justice of the High Court exercising jurisdiction in relation to the State, or, in his absence, the senior most Judge of that Court available, an oath or affirmation in the following form, that is to say—

“I, A. B., do swear in the name of God that I will faithfully execute the
solemnly affirm

office of Governor (or discharge the functions of the Governor) of(*name of the State*) and will to the best of my ability preserve, protect and defend the Constitution and the law and that I will devote myself to the service and well-being of the people of(*name of the State*).”

60. Oath or affirmation by the President.—Every President and every person acting as President or discharging the functions of the President shall, before entering upon his office, make and subscribe in the presence of the Chief Justice of India or, in his absence, the senior-most Judge of the Supreme Court available, an oath or affirmation in the following form, that is to say—

“I, A.B., do swear in the name of God that I will faithfully execute the office
solemnly affirm

of President (or discharge the functions of the President) of India and will to the best of my ability preserve, protect and defend the Constitution and the law and that I will devote myself to the service and well-being of the people of India.”

For Vice President:

69. Oath or affirmation by the Vice-President.—Every Vice-President shall, before entering upon his office, make and subscribe before the President, or some person appointed in that behalf by him, an oath or affirmation in the following form, that is to say—

“I, A.B., do swear in the name of God that I will bear true faith and
solemnly affirm

allegiance to the Constitution of India as by law established and that I will faithfully discharge the duty upon which I am about to enter.”

Second is incorrect:

(a) a Vice-President may, by writing under his hand addressed to the President, resign his office;

~~(b)~~ a Vice-President may be removed from his office by a resolution of the Council of States passed by a majority of all the then members of the Council and agreed to by the House of the People; but no resolution for the purpose of this clause shall be moved unless at least fourteen days' notice has been given of the intention to move the resolution;

(c) a Vice-President shall, notwithstanding the expiration of his term, continue to hold office until his successor enters upon his office.

Third is correct:

All doubts and disputes arising in connection with the election of the Vice-President are enquired into and decided by the Supreme Court of India whose decision is final.

Q7. With regard to election of Vice President, consider the following statements.

1. By convention, the Secretary General of the Houses is appointed as the Returning Officer, by rotation.
2. Unlike the Presidential election, where the value of votes cast by the Members of Parliament and of the various State Legislative Assemblies is different, the value of every vote cast in the vice-Presidential election has the same value.
3. Provisions of the Anti-Defection Law applicable in Vice-Presidential Elections.

Which of the above statements is/are correct?

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

Solution: c

Explanation:

First and second statements are correct.

~~9.~~ **Who is appointed the Returning Officer/Assistant Returning Officer for the election to the Office of Vice-President of India? Who makes such appointment?**

Answer: By convention, the Secretary General, Lok Sabha or the Secretary General, Rajya Sabha is appointed as the Returning Officer, by rotation. Two other senior officers of the Lok Sabha/Rajya Sabha Secretariat are appointed as the Assistant Returning Officers. The

~~15.~~ **How is the value of votes of members of the Electoral College calculated?**

Answer: Unlike the Presidential election (where the value of votes cast by the Members of Parliament and of the various State Legislative Assemblies is different), the value of every vote cast in the Vice-Presidential election has the same value i.e. 1(one).

Third is incorrect:

✓ 17. Are the provisions of the Anti-Defection Law applicable in Vice-Presidential Elections?

Answer: No. Members of the Electoral College can vote according to their choice/wish and are not bound by any party whip. The voting is by secret ballot.

Q8. Consider the following statements:

1. If rupee is depreciating then it leads to increase in cost of imports in dollars.
2. If rupee is depreciating then it leads to earning more dollars per unit of exports.

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: d

Explanation:

EXPLANATION of (i) statement

Suppose \$1 was equal to Rs 70. And the price of OIL in the international market was \$1 per litre. Now, if I have to import one litre OIL then first, I will purchase \$1 from the market by paying Rs.70 and then in \$1 I will purchase one liter OIL. BUT if rupee depreciates to \$1 = Rs. 80, then I will have to purchase the same \$1 by paying Rs. 80 and then from \$1 I will purchase one liter OIL. SO, rupee depreciation did not increase my cost in dollar terms, because I can still import one litre OIL in one dollar as the price of one litre OIL has not changed and only RUPEE depreciated. So, my cost in Rupees will increase, but the cost of import of one litre OIL remains same in terms of dollars and that is \$1.

Explanation of (ii) statement

Suppose the price of wheat in international market is, 1kg wheat = \$1 and suppose rupee dollar rate is \$1=Rs.70. Now when I will export wheat then first, I will get \$1 and this \$1 I sell in market and I get Rs. 70. Now if rupee depreciated to \$1 = Rs. 80, then STILL I can/will sell 1 kg wheat in \$1 and then while converting 1\$ in rupee I will get Rs. 80. So, when rupee has depreciated, I still earn same dollars (one dollar) per kg of wheat export, but when I convert in rupees then I get more rupees (Rs. 80).

Q9. Consider the statements and select correct code:

1. All the currency in circulation is the liability of RBI.
2. All the currency in circulation is part of money supply.
3. Notes and Coins are circulated in the economy only through RBI.

Select the correct code.

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

Solution: c

Explanation:

1) Currency in Circulation = Notes + Coins

2) Currency with the Public = Currency in Circulation - currency/cash with the banks

The answer to the above question is (iii) only.

Currency in circulation consists of Notes and Coins. All the currency notes (except one rupee note) is liability of RBI. But one rupee note and coins are printed/minted by Govt. of India and hence are liability of Govt. of India

All the currency in circulation is not part of money supply. Only that currency in circulation which is with the PUBLIC is part of money supply. The currency with bank is not part of money supply.

Even if one rupee note and coins are minted/printed by Govt. of India..... All the currency notes and coins are circulated in the economy by RBI (as per RBI Act 1934).

Q10. Consider the following statements regarding "Monetisation of Deficit":

1. It leads to increase in Monetary Base
2. It is done by issuing new government bonds
3. It is allowed in FRBM Act 2003 but only under exceptional circumstances
4. It may lead to inflation and macroeconomic instability.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

"Monetisation of Deficit" means Govt. tries to borrow from RBI through printing of new currency notes to finance its deficit. So, RBI will print new currency notes and give to Govt. and govt. will give a receipt/proof that Govt. has taken this much amount of money from RBI. This receipt/proof is called govt. bonds/securities.

So, because of this the following changes happen in RBI's balance sheet. As the new currency notes given to govt. are liability for RBI, so liability of RBI increases and simultaneously.....RBI gets the govt's bond which will be asset for RBI. So, RBI's Asset and Liability will increase by the same amount of new printed currency notes.

And 'Monetary Base' is defined as the liability of RBI. And since liability increased because of printing new notes, so Monetary Base increased. Of course, this will also increase the money supply in the economy (once the money reaches to the public).

This is allowed in FRBM act.

Since new currency is created, it results in inflation. And higher the currency notes printed it will result in much higher inflation and instability of economy.

Q11. There is a Chinese Company doing business in India. The profit made by the Company will be part of:

1. India's GDP
2. China's GNP

Select the correct code.

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

Solution: c

Explanation:

If the Chinese company in India produces a BURGER and sold it into India and got REVENUE of Rs. 100. That means the price of the burger is Rs. 100 AND we can also say that value of production in India is Rs. 100. Then out of this Rs. 100, the company will have to pay for the Four factors of production say, RENT = Rs. 10, INTEREST = Rs. 20, WAGES = Rs. 30 and PROFIT = Rs. 40.

So, all the factors of production earning (value addition), is included in India's GDP.

But the profit earned is the income of a Chinese Resident (the Chinese Company in India is ultimately owned by a Chinese person). So, Rs. 40 will also be part of China's GNP.

And in this case, INDIA's GNP will be Rs. 60 (as it is assumed that all the other three factors of production are Indian residents).

Q12. Which of the following may result in Rupee depreciation?

1. RBI following an expansionary monetary policy
2. Govt. stimulating the economy through deficit financing from RBI

Select the correct code.

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

Solution: c

Explanation:

Because of expansionary monetary policy, either repo rate is reduced (which will result in decrease in interest rate in economy) or may be Open market operation (OMO) can be done which will give more money to the banking and financial system which again will result in decrease in interest rate (because of surplus liquidity). So, expansionary monetary policy will result in reduction in interest rate in economy which may result in foreign portfolio investors (bond market) leaving the domestic economy resulting in depreciation of Rupee.

Deficit financing from RBI means govt is borrowing money from RBI (RBI is printing new money) and spending in the economy through infra construction/payment of MGNREGA wages/ subsidies etc, which results in reaching more money to the public resulting in increase in demand in economy and inflation in domestic economy which will result in depreciation of domestic currency in forex market (inflation results in depreciation of currency).

Q13. In case of the liquidity crisis with a bank:

1. RBI superseded the Board of Bank through RBI Act 1934
2. RBI acted as 'lender of last resort'.

Select the correct code.

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

Solution: b

Explanation:

When there is liquidity crisis with a bank, then RBI acts as "Lender of last resort" and provides LOAN at a particular interest rate to the bank.

But when there is a major mismanagement in the bank and there are chances of major default/bankruptcy, then RBI, in consultation with Govt. of India, can supersede the "Board of Directors" of banks (but may not be PSU banks, whose management is regulated by Govt. rather than RBI), in public interest. Once RBI supersedes the Board of Directors, it appoints an "Administrator". This is done as per the "Banking Regulation Act 1949" Section 36ACA.

So, (i) statement is false as, RBI supersedes a bank's Board under "Banking Regulation Act 1949" and not under RBI Act 1934.

Q14. Which of the following countries is/are part of first edition of IMT TRILAT joint maritime exercise?

1. India
2. Mozambique
3. Malaysia

4. Tunisia
5. Tanzania

Select the correct answer using the code given below:

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

Solution: a

Explanation:

The first edition of India-Mozambique-Tanzania Trilateral Exercise (IMT TRILAT), a joint maritime exercise among the Indian, Mozambique and Tanzanian navies commenced at Dar Es Salaam, Tanzania on 27 October 2022.

Q15. With respect to '**Red Mud**', consider the following statements.

1. Red Mud is the waste generated in the production of copper.
2. Red Mud is toxic due to its extreme alkalinity and heavy element leaching.
3. The red mud contains Fe_2O_3 , which is suitable for attenuating high-energy ionizing radiations like X- and gamma rays.

Which of the above statements is/are correct?

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

Solution: b

Explanation:

News:

Posted On: 29 OCT 2022 7:36PM by PIB Delhi

CSIR- Advanced Materials and Processes Research Institute (AMPRI) has converted red mud into X-ray shielding tiles in a green and economically viable manner through a ceramic route by adding a certain

Prime Minister's Office

- Another big achievement towards self-reliance in fertilizers
- The connectivity between Panjim to Vasco will provide relief to the people as well as promote tourism: PM
- PM lauds the initiative of women of the self-help group from Khadki village of Burhanpur, MP to ensure tap connection to every house
- PM pays homage to Shri Biju Patnaik on his birth anniversary

Ministry of Defence

- CURTAIN RAISER - NAVAL COMMANDERS' CONFERENCE 23/1

Red Mud is the waste generated in the Bayer process of alumina production from bauxite. It is also known as bauxite residue. Red Mud is defined as a "High Volume Low Effect Waste". Nearly 1 to 1.5 tonnes of RM is being generated while producing one tonne of alumina from the bauxite ore through the Bayer process. It is considered to be toxic due to its extreme alkalinity and heavy element leaching. Annually about 175 million tonnes of red mud have been generated globally and stored in a specially designed clay-lined pond. Among that India is producing nearly 9 million tonnes of red mud every year. The clay-lined ponds often broke out and pollute soil, groundwater, and air and become fatal for both humans and wildlife.

Red mud is one of the underutilized industrial wastes and getting accumulated over the years due to an increase in alumina production as well as inadequate technologies for its large-scale utilization. Although the scientific community has patented more than 700 applications of red mud, very few of them have reached industries due to high cost, low public acceptance, environmental issues, and limited market. Noteworthy, only 3-4% of red mud has been utilized by the industries to produce cement, bricks, source of iron ore etc. (i.e. 1-1.5 million tonnes (Mt) for cement production, 0.2-1.2 Mt for iron production and 0.5 -1.0 Mt for building materials and 0.3 Mt for making pigments, catalyst, ceramics, etc.). The beneficial utilization of red mud is becoming a global issue. The red mud contains 30 - 55% of Fe_2O_3 , which is suitable for attenuating high-energy ionizing radiations like X- and gamma rays.

Q16. Consider the following statements.

1. At present, any usage of satellite connectivity in the consumer space is governed by the Global Mobile Personal Communication by Satellite (GMPCS) clause.
2. The GMPCS is a clause under the Department of Telecommunication's Unified Licence structure introduced in the National Telecom Policy, 2012.
3. Now, consumer smartphones in India do not support satellite connectivity, and its feature is limited to maritime applications, trekking, etc.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

GUIDELINES FOR ISSUE OF LICENCE
FOR
GLOBAL MOBILE PERSONAL COMMUNICATION
BY
SATELLITE (GMPCS) SERVICE

The New Telecom Policy'99 envisages introduction of Global Mobile Personal Communication by Satellite (GMPCS) Service in India. With GMPCS Service a subscriber can communicate from any point on earth through hand-held terminal. The subscriber will have one telephone number irrespective of his location. The mobile satellite networks can operate with satellites either in Low Earth Orbit (LEO) upto 1000 KMs, Medium Earth Orbit (MEO) upto 10,000 KMs or Geo Stationary Earth Orbit (GEO) at 36,000 KMs. from the surface of the earth. Some of the Satellites planned for

Apple may have limited satellite connectivity to emergency services, and only in the US and Canada, but the feature is set to come to mainstream smartphones in countries like India in the next two years, say industry experts. At the moment, consumer smartphones in India do not support satellite connectivity, and the feature is limited to 'satphones', which are used in maritime applications, trekking operations and more.

These users, too, use satphones that come with bulky antennas and specialized software required for such connections. But experts said that Apple's move represents a growing amount of interest from satellite operators, internet and telecom service providers, and software designers in having regular smartphones to satellite — and India could also benefit in this nascent sector.

mainstream smartphones in countries like India in the next two years, say industry experts. At the moment, consumer smartphones in India do not support satellite connectivity, and the feature is limited to 'satphones', which are used in maritime applications, trekking operations and more.

"At present, any usage of satellite connectivity in the consumer space is governed by the Global Mobile Personal Communication by Satellite (GMPCS) clause under the Department of Telecommunications. This clause lays down regulatory guidelines that any individual needs to follow in order to subscribe to satellite connectivity services in India," Prakash said.

The GMPCS is a clause under the DoT's Unified Licence structure, introduced in the National Telecom Policy, 2012. It allows satellite operators to offer satellite-based connectivity in India, and enables users to seek necessary permissions from the DoT to use satellite phones in the country.

Q17. With respect to **Counter-Terrorism Committee Executive Directorate (CTED)**, consider the following statements.

1. UN Security Council established the CTED to assist the work of the Counter-Terrorism Committee (CTC).
2. CTED conducts country visits on the Counter-Terrorism Committee's behalf to assess Member States' counter-terrorism efforts.
3. CTED in cooperation with United Nations Office of Counter-Terrorism (UNOCT) act in accordance with the relevant resolutions of the General Assembly to promote law enforcement relating to Counter-Terrorism.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

No need to read anything more than these three statements.

All statements are correct. Just you learn about CTED. All UN agencies are important for exam.

Q18. Recently held '**B20 Indonesia Global Dialogue**', is:

- a. G20 dialogue forum
- b. a forum of ASEAN where Indo Pacific countries discuss for the development of the region
- c. is an independent trade forum of South East Asia which work on easy trade rules in the region
- d. A think tank grouping of governments, private members, NGOs which works on biodiversity conservation in the region

Solution: a

Explanation:

Department for Promotion of Industry and Internal Trade (DPIIT) hosts Conference on B20 Indonesia Global Dialogue

Conference to help ensure that the Indian perspectives are well represented in the policy recommendation of B20 Indonesia

Posted On: 10 OCT 2022 5:20PM by PIB Delhi

Business 20 (B20), formed in 2010, is the official G20 dialogue forum with the global business community. B20 aims to deliver concrete actionable policy recommendations on the priorities by each rotating presidency to spur economic growth and development.

Q19. With respect to **Telecom Technology Development Fund (TTDF)**, consider the following statements.

1. Universal Service Obligation Fund (USOF) launched Telecom Technology Development Fund Scheme.
2. From this fund, grants given to Indian entities to encourage and induct indigenous technologies to meet domestic needs.

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: c

Explanation:

✓ Universal Service Obligation Fund (USOF) launches Telecom Technology Development Fund scheme

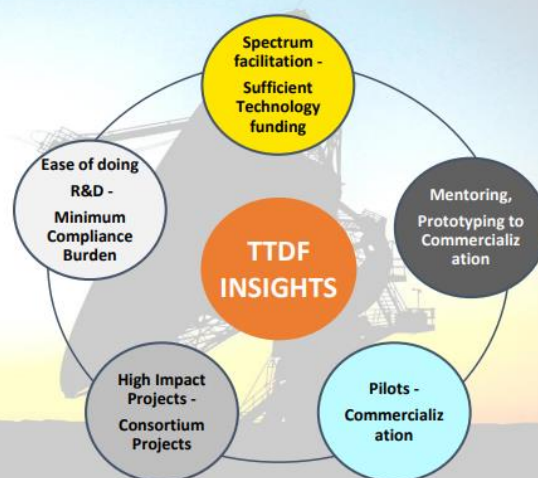
Posted On: 01 OCT 2022 5:03PM by PIB Delhi

✓ Universal Service Obligation Fund (USOF), a body under the Department of Telecommunications, officially launched Telecom Technology Development Fund (TTDF) Scheme on October 01st, 2022. The scheme is aligned with Prime Minister, Shri. Narendra Modi's clarion call of adding *Jan Anusandhaan* in the new phase of *Amrit Kaal*. ✓

Telecom Technology Development Fund (TTDF) aims to fund R&D in rural-specific communication technology applications and form synergies among academia, start-ups, research institutes, and the industry to build and develop the telecom ecosystem. Additionally, the Scheme aims to promote technology ownership and indigenous manufacturing, create a culture of technology co-innovation, reduce imports, boost export opportunities and creation of Intellectual Property. Under the scheme, USOF is also targeting to develop standards to meet countrywide requirements and create the ecosystem for research, design, prototyping, use cases, pilots, and proof of concept testing, among others. The scheme entails grants to Indian entities to encourage and induct indigenous technologies tailor-made to meet domestic needs. ✓

Telecom Technology Development Fund (TTDF)

- An allocation of 5% of annual collections from USOF will be available for TTDF Scheme
- Funding **research & development** of technologies, products and services for the purpose of providing telecom services in rural and remote areas.
- The scheme is envisaged to **bridge digital divide** by developing and manufacturing state-of-the-art technologies.
- **Submission of applications** for Product/ Technology development/ Pilots, etc. start w.e.f., 1st October 2022.

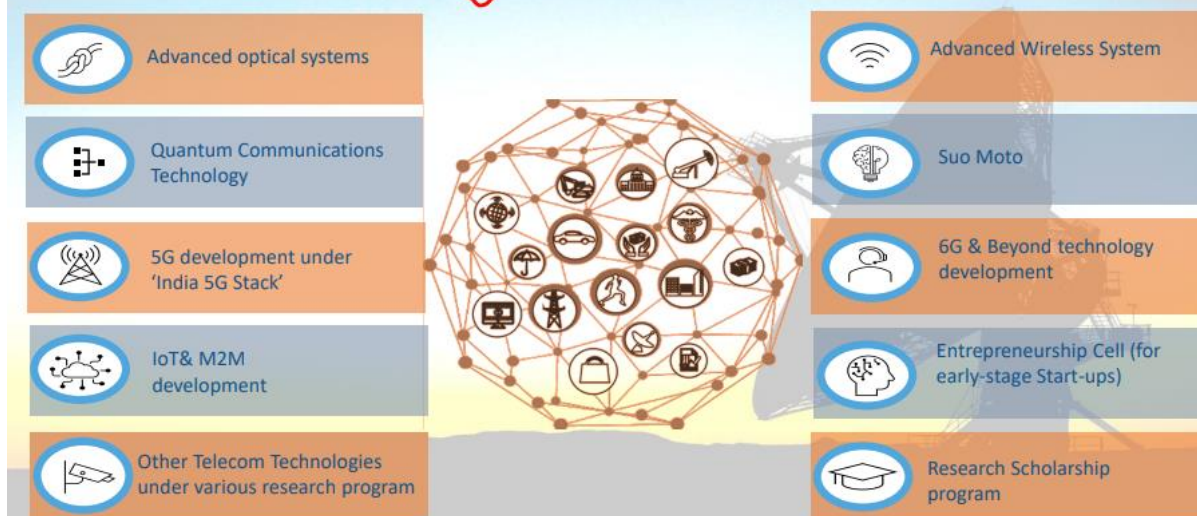


Telecom Technology Development Fund (TTDF)

Salient Features

-  **Grants to Indian entities** to encourage and induct indigenous technologies tailor-made to meet our unique needs and enable creation of a telecom product ecosystem in India
-  **Promotion of Research & Development** in the field of Telecommunications Technologies and solutions
-  Covers wide areas of technologies & solutions to enable affordable broadband and mobile service **proliferation in rural & remote areas.**
-  Creation of **Intellectual Property Rights** (Section 8, Guidelines)
-  **Well defined process** for implementation & monitoring of approved projects
-  **Transparent evaluation** and approval criteria
-  Independent **review by reputed third party agencies**

Field of Research under TTDF



Q20. 'Semi-automated offside technology' was recently observed in which of the following sports?

- Cricket
- Hockey
- Badminton
- Football

Solution: d

Explanation:

FIFA is using its new semi-automated offside technology to help officials make accurate and faster offside calls in World Cup 2022.

If you want to go in detail: <https://youtu.be/FEPKAeGzwPU>

Q21. In reference to Global Climate Observing System (GCOS), consider the following statements.

- It regularly assesses the status of global climate observations of the atmosphere, land and ocean and produces guidance for its improvement.
- GCOS works towards a world where climate observations are accurate and sustained, and access to climate data is free and open.
- It is an initiative of World Bank and European Union.

Which of the above statements is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Solution: a

Explanation:

Global Climate Observing System (GCOS)

The Global Climate Observing System (GCOS) is co-sponsored by the World Meteorological Organization (WMO), the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO), the United Nations Environment Programme (UN Environment), and the International Science Council (ISC). It regularly assesses the status of global climate observations of the atmosphere, land and ocean and produces guidance for its improvement.

GCOS regularly assesses the status of global climate observations and produces guidance for its improvement. **GCOS works towards a world where climate observations are accurate and sustained, and access to climate data is free and open.**

Q22. Consider the following statements with respect to **saffron production in India**.

1. The measures taken under National Mission on Saffron were limited to the specified areas of Kashmir.
2. Productivity under National Mission on Saffron increased to around 5 times since mission was launched.
3. NECTAR, an autonomous body under the Department of Science & Technology exploring the feasibility of growing saffron in North East region of India.

Which of the above statements is/are correct?

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

Solution: c

Explanation:

Read introduction to mission:

The area under Saffron cultivation declined from 5707 hectares in 1996-97 to 3785 hectares in 2010-11. The decline in area was mainly attributed to low benefit cost ratio due to intensive and expensive cost of cultivation, low productivity (1.88 Kg/ ha), Orthodox cultivations methods coupled with various biotic and abiotic stresses, poor plant stand, change in weather pattern resulted in moisture stress at the terminal growth stages were the main factors responsible for decline in crop yields which evaded interests of farming community to pursue saffron cultivation.

To give a boost to the saffron production and to mitigate the sufferings of the saffron growers, Ministry of Agriculture and Cooperation, Government of India, during the year 2010-11 introduced a scheme "National Mission on Saffron".

The details of project are as under:

Total Project cost: **400.11 Crore**

Sanctioned Project Cost: **400.11 Crore**

Govt. of India Share: **315.99 Crore**

Farmers Share: **84.12 Crore**

Period: **9 years (2010-2020)**

Funds released as on date **266.1023 Crore**

Expenditure as on date: **256.3535 Crore**

First statement is correct as the mission was limited to Kashmir region.

Second statement is incorrect:

Production/Productivity of Saffron under National Mission on Saffron

Year	Total Area	Rejuvenated Cumulative Total (area in ha)	Total area under traditional method	Total Production Rejuvenated area (MTs)	Total production inclusive from non-traditional areas (MTs)	Total Productivity (Kgs/ha)
2010-11	3715	-	3715	-	10.03	2.69
2011-12	3715	331	3384	1.489	10.79	2.90
2012-13	3715	1274	2441	5.733	12.445	3.34
2013-14	3715	1802	1913	8.649	14.005	3.77
2014-15	3715	1959	1756	2.938	5.572	1.5 (Floods)
2015-16	3715	2135	1580	11.742	16.166	4.35
2016-17	3715	2218	1497	12.19	16.45	4.42
2017-18	3715	2387.81	1323.75	3.92	5.2	1.4
2018-19	3715	2462	1253	4.30	5.653	1.52
2019-20	3715	2578.75	1136.25	12.495	15.12	4.07

Third is correct.

NECTAR brings saffron bowl to the Northeast, boosts technology for sustainable solutions to the regions challenges

The saffron bowl of India, so far confined to parts of Kashmir, has now spread its wings to parts of the North East through the focused efforts of the North East Centre For Technology Application & Reach (NECTAR).

NECTAR, an autonomous institute of the Department of Science and Technology (DST) formed in the year 2012, with the merger of the erstwhile National Mission on Bamboo Applications (NMBA) and Mission on Geospatial Applications (MGA), with a mandate to be a solutions designer and a partnership institution providing technology applications and garnering support for the region's development problems.

NECTAR) supported a pilot project to explore the feasibility of growing saffron in North East region of India, with the same quality and higher quantity.

Q23. 'Ikshak' is a:

- Large Survey Vessel Ship
- India's first human carrying drone
- Hand weapon recently introduced in army
- anti-tank guided missile (ATGM)

Solution: a

Explanation:

News:

LAUNCH OF 'IKSHAK' THIRD SHIP OF SURVEY VESSEL (LARGE) PROJECT
ON 26 NOV 22 AT L&T, KATTUPALLI

Posted On: 26 NOV 2022 4:16PM by PIB Delhi

'Ikshak', the third of the four Survey Vessels (Large) (SVL) Project, being built by GRSE/L&T for Indian Navy was launched on 26 Nov 22 at Kattupalli, Chennai. She

Q24. With reference to the **Black Corals**, consider the following statements:

- Black corals do not have symbiotic algae associated with them.
- Black Corals do not require light which enables them to extend into depths where light is not present.
- Black corals differ from stony corals, by having a flexible skeleton made of protein and chitin.

Which of the above statements is/are correct?

- 2 only
- 2 and 3 only
- 3 only
- 1, 2 and 3

Solution: d

Explanation:

Scientists discover five new species of black corals living thousands of feet below the ocean surface near the Great Barrier Reef




Many of these corals are branched and look like feathers, fans or bushes, while others are straight like a whip.

November 26, 2022 12:55 pm | Updated 12:55 pm IST

Black corals can be found growing both in shallow waters and down to depths of over 26,000 feet (8,000 meters), and some individual corals can live for over 4,000 years.

Many of these corals are branched and look like feathers, fans or bushes, while others are straight like a whip. **Unlike their colourful, shallow-water cousins that rely on the sun and photosynthesis for energy, black corals are filter feeders and eat tiny zooplankton that are abundant in deep waters.**


Searched more for Black corals:







NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION
UNITED STATES DEPARTMENT OF COMMERCE


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[Explorations](#) | [Operation Laser Line 2006](#) | Background



[Mission Plan](#)


[Education](#)


[Black Coral](#)


[Bottom Fish](#)


[Technology](#)



Black Corals of Hawaii

Anthony Montgomery
Hawaii Department of Land and Natural Resources
Division of Aquatic Resources

Black corals are a group of corals that belong to the order Antipatharia. Black corals are found all over the world and at all depths. Typically, however, they are known as deep-sea corals and can be abundant in certain areas. Black corals are rarely black, but rather vary in color from white to red, green, yellow, or brown. They also range in shape from small bushes to bottle brushes to fans to single stalks. The black corals differ greatly from stony corals in terms of their skeletons. All black corals have a skeleton made of protein and chitin (the same material as an insect skeleton). In addition, black corals do not have symbiotic algae associated with them, and they do not require light which enables them to extend into depths where light is not present.

Q25. Consider the following statements:

1. The condition of women was the same during the Vedic and the later Vedic periods.
2. The Later Vedic period saw a rise in the extent of kingdoms as opposed to the Rig Vedic period.

3. The prominence of Indra faded during the later Vedic period and instead, importance was given to Prajapati.
4. The pattern of social system (Varna) continued as it is from the Rig Vedic to the Later Vedic period.

Which of the statements given above are correct?

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

Solution: b

Explanation:

During the Vedic period, women were given equal opportunities as men for their spiritual and intellectual development. There were women poetesses like Apala, Viswavara, Ghosa and Lopamudra during the Rig Vedic period.

Women could even attend the popular assemblies. There was no child marriage and the practice of sati was absent.

However, **with the transition to the later Vedic period, the position of women declined, as the society became more patriarchal.**

Women also lost their political rights of attending assemblies. Child marriages had become common.

According to the Aitareya Brahmana, a daughter has been described as a source of misery. However, the women in the royal household enjoyed certain privileges.

The social divisions were not rigid during the Rig Vedic period, as it was in the later Vedic period.

Larger kingdoms were formed during the later Vedic period.

The four divisions of society (Brahmins, Kshatriyas, Vaisyas and Sudras) or the Varna system was thoroughly established during the Later Vedic period. The two higher classes - Brahmana and Kshatriya enjoyed privileges that were denied to the Vaisya and Sudra. Many subcastes, on the basis of their occupation appeared in this period.

The two outstanding Rig Vedic gods, Indra and Agni, lost their former importance. On the other hand, Prajapati, the creator, came to occupy the supreme position in the later Vedic period.

Q26. Consider the following statements:

1. Buddha did not believe in the existence of soul.
2. The first human statues worshiped in India were those of the Buddha.
3. He opened the gates of his sangha to both men and women.

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: d

Explanation:

Buddha was a rationalist, who tried to explain things in the light of reason and not on the basis of blind faith. In this sense, he was against any social distinctions.

Also, he did not make a direct attack on the caste system, rather he threw open his order to all people of any caste.

The first human statues worshiped in India were those of the Buddha. The devotees of the religion portrayed the various events in the life of Buddha in stone.

When Buddha started Sangha, the Buddhists predominantly consisted of men. Women did not participate in the early beginnings of Sangha, therefore, many women wanted to join the Sangha and yearned for equality. However, they could not get easy access as there was no tradition of assimilation. But later it happened...Don't get misguided by nay notes. Women were part of it.

Example: In the Therigātha (The Songs of the Women Elders)

For example, **Sumangala, Bhikkhuni** says:

*"O Woman well set free! How free I am,
How wonderful free from kitchen drudgery,
Free from empty harsh grip of hunger,
And from empty cooking pots,
Free too of that unscrupulous man,
The weaver of sunshades.
Calm now and serene I am,
All lust and hatred purged.
To the shades of the spreading trees, I go
And contemplate my happiness."*

Sumangala makes it clear that though she lives under a tree, she feels freed from drudgery and from the brutal husband who respected her less than the shade of a tree. This shows after joining a Sangha, women were free from all such bondage.

The Buddhist community comprised monks and nuns known as the Bhikkus and the Bhikkunis.

Q27. Consider the following pairs.

Buddhist places	Related to
1. Chaukhandi Stupa, Sarnath	It has the ruins of a Buddhist monastery and where Buddha first met his five disciples, when he reached Sarnath
1. Kushinagar	Angulimala's Stupa in India built by Angulimala for his Lord- Buddha
2. Dhamek Stupa, Sarnath	Buddha delivered his first sermon

Which of the above pairs is/are correct?

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

Solution: b

Explanation:

The explanation is taken from Ministry of Tourism document:

https://tourism.gov.in/sites/default/files/2021-10/Buddhist%20Tourism%20Circuit%20in%20India_ani_English_Low%20res.pdf



Sarnath is a very important Buddhist spot, because this is where the Buddha gave his first sermon, called the Dharmachakraparavartana or the Wheel of Law, five weeks after his enlightenment. It was here that he propagated the important tenets of his Dharma - the Four Noble Truths, the Eight-Fold path, and the Middle Way. It was here also that he founded his Sangha (Council), with five of his former disciples.

The Triple Gem concept of Buddhism originated here (Buddha, Dharma, Sangha), as also the celebrated mantra 'Buddham Sharanam, Gachami.'

The Buddhist Sangha grew to sixty monks, whom the Buddha sent to different parts of the kingdom to spread his Dharma.

The Buddha also travelled widely, but he often returned to Sarnath, to meditate and preach, especially during the rainy season.

The Deer Park, where the Buddha gave his first sermon, is the most attractive part of Sarnath, with its emerald-green lawns, small hill-tops, surrounded by the majestic ruins of many stupas and chaityas.

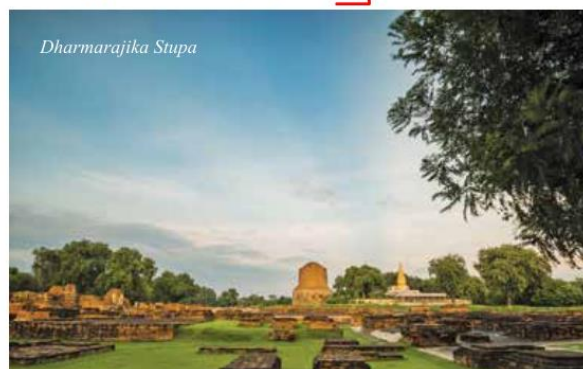
The Chaukhandi Stupa, on a high mound, is one of the first sights in Sarnath. It has the ruins of a Buddhist monastery of the 5th century AD, supposedly to mark the spot where Buddha first met his five disciples, when he reached Sarnath.

It was Emperor Ashoka, who resurrected this sacred Buddhist town, when he visited it and erected famous Ashoka Pillar. The four lion-heads on top of the pillar, facing four different directions and called the Lion Capital, is on display in the Sarnath Museum.



Ashoka also constructed the biggest and most striking stupa, the Dhamek Stupa. It's a solid cylindrical tower, 128 feet high and 93 feet in diameter. The borders have delicately carved geometrical and

floral patterns, and the figures of humans and birds, which are all very soothing to the eye. The name Dhamek has been connected to Buddha's 'Dharma'. Most Buddhists who visit Sarnath, circumambulate around this stupa, chanting mantras, as it's supposed to be very auspicious.





Ananda Bodhi tree, and is a favourite spot for Buddhist pilgrims to pray and meditate.

There is also the *Angulimala Stupa*, built in memory of the killer-dacoit Angulimala, notorious for wearing a necklace of human fingers around his neck. When he met the Buddha, the latter's serene words changed him, and he became an ardent disciple.

Like the other Buddhist sites, Sravasti has a range of beautiful monasteries built by other Buddhist countries.

Q28. Which the following Statements is/are correct?

1. Megasthenes suggests matriarchal influence in the Pandyan kingdom.
2. The Pugalur inscription is associated with the genealogy of the Chera kings.

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: c

Explanation:

The Pandyas are first mentioned by Megasthenes, who says that their kingdom was celebrated for pearls. He also speaks of it being ruled by a woman, suggesting some matriarchal influence in the Pandyan society.

The Pugalur inscription of the first century A.D refers to three generations of the Chera rulers. Padirrupattu also provides information on the Chera kings.

Q29. Consider the following pairs.

Indian female personalities	Related to
1. Muktabai	part of a Bhakti movement in Maharashtra
2. Zuni Gujjari	fought for liberation of Kashmir in 1947
3. Lakshmi N Menon	Known as lady diplomat of India

Which of the above pairs is/are correct?

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

Solution: d

Explanation:

Muktabai was an important part of a group of the 13th-century Bhakti movement in Maharashtra called the Warkari sampraday.

Zuni Gujjari has been instrumental in shaping the history of Kashmir, first during the Dogra era, then by fighting alongside India against Pakistan and advancing India's cause for independence.

When the invasion of Kashmir by Pakistani tribesmen on October 22, 1947, occurred, it served as a catalyst for people to take up arms and fight for their homeland's liberation.

Third is also correct.

Q30. Which one of the following drama of ancient India deals with the love affair of a poor Brahmana with the daughter of a courtesan?

- a. Abhijnanashakuntalam
- b. Mrichchhakaktika
- c. Malavikagnimitra
- d. Vikramorvashi

Solution: b

Explanation:

The Mrichchhakaktika, or the little clay cart, written by Sudraka, deals with the love affair of a poor Brahmana with the beautiful daughter of a courtesan. It is considered one of the best works of ancient drama.

Malavikagnimitra, Abhijnanashakuntalam and Vikramorvashi were written by Kalidasa.

Kalidasa was also the author of two famous Sanskrit epic poems: Raghuvansham and Kumarasambhavam. In fact, Abhijnanashakuntalam is considered to be one of the best hundred literary works in the world.

Q31. Consider the following major depictions and their locations:

1. Ravana shaking Mount Kailasha: Mahabalipuram
2. Shiva chasing the boar, Kiratarjuniya: Lepakshi Temple
3. Shiva killing Tripurasura: Thanjavur Temple

Select the correct answer using the codes.

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

Solution: b

Explanation:

Image in class 11 book, Introduction to India Art.



Ravana shaking Mount Kailasha is at Ellora.

Q32. In ancient India, the term 'Skandhavaras' was used to refer to the

- a. military camps
- b. royal scribes
- c. Jain monks wearing white clothes
- d. revenue collectors

Solution: a

Explanation:

The Satavahanas tried to establish rule according to the Dharmashastra.

Important officials were called Mahamatras and Amatyas.

District was called Ahara.

Kataka and Skandhavaras are terms used in the inscription for military settlements and camps.

These also acted as the centre of administration, as long as the king stayed here.

Q33. Which of the following statements is/are correct?

1. It was due to Ishwarchandra Vidyasagar's active mobilization of support that the Widows' Remarriage Act was passed in 1856, legalizing all widow remarriages.
2. With the help of Bethun, Ishwarchandra Vidyasagar set up many schools devoted especially to the girl child.
3. Keshab Chandra Sen took the activities of the Brahmo Samaj beyond Bengal and into UP, Punjab, Madras and Bombay.

Select the correct answer using the code given below:

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

Solution: d

Explanation:

Ishwarchandra Vidyasagar was an active proponent of education of the girl child, as he believed that lack of education was the real cause underlying all their problems.

With the help of an Englishman, named Bethun, Vidyasagar set up many schools devoted especially to the girl child. He forcefully attacked child marriage and polygamy. He was a strong advocate of widow remarriage.

It was due to his active mobilization of support that the Widows' Remarriage Act was passed in 1856 legalizing all widow remarriages. He arranged many such remarriages. He set a personal example when his son Narayan also married a widow.

Keshab Chandra Sen (1838–84), who joined the Brahmo Samaj in 1858, was a very eloquent and persuasive leader. He took the activities of the Samaj beyond Bengal and into UP, Punjab, Madras and Bombay. He radicalized the Samaj by attacking caste system, underlining women's rights, promoting widow remarriage and raising the issue of caste status of Brahmo preachers, which was earlier reserved for Brahmans.

He laid stress on universalism in religion. His radicalism brought him into opposition with Debendranath. In 1866, the Samaj was formally divided into Adi Brahmo Samaj (headed by Debendranath) and the Brahmo Samaj of India (headed by Keshab Chandra).

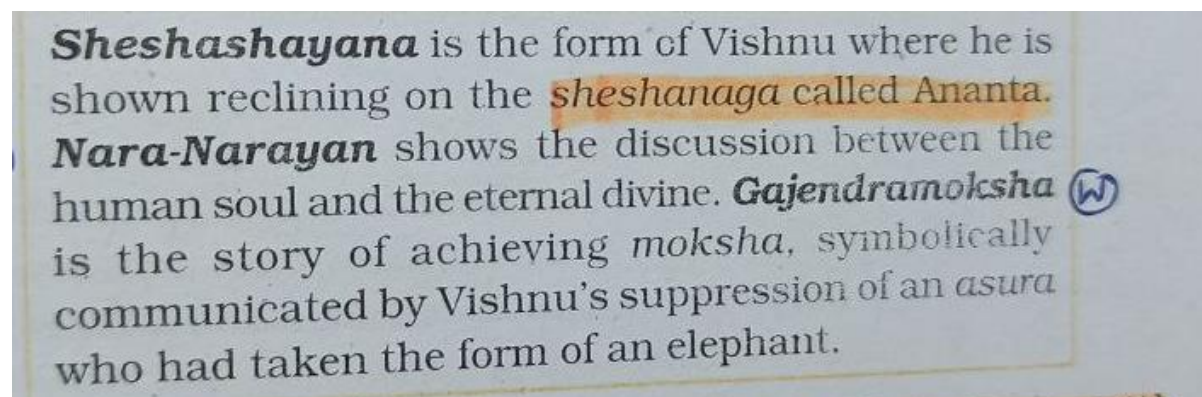
Q34. Three reliefs of Vishnu- Sheshashayana, Nara-Narayan and Gajendramoksha can be seen:

- a. Dashavatara temple, Deogarh
- b. Vishwanatha temple, Khajuraho
- c. Sun Temple, Modhera

d. Lakshmana temple, Khajuraho

Solution: a

Explanation:



Q35. Which of the following temples are dedicated to Lord Vishnu:

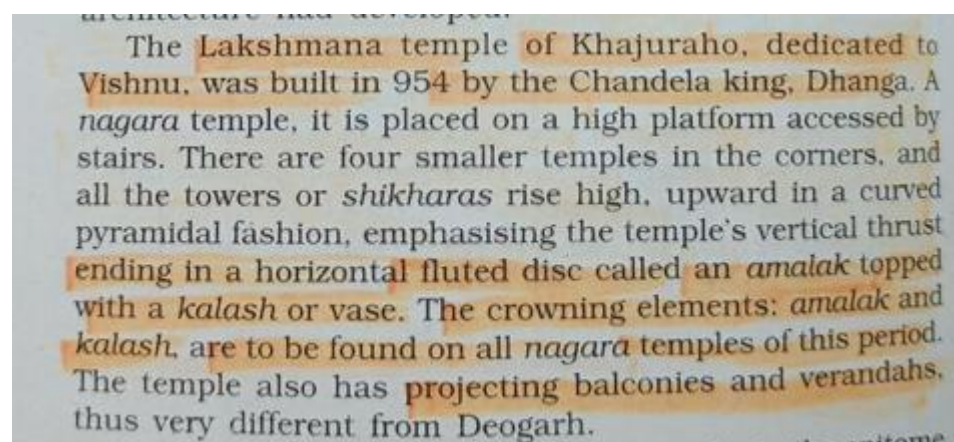
1. Lakshmana temple, Khajuraho
2. Jagannath temple, Puri
3. Brahadeeshwarar temple, Thanjavur
4. Badrinath temple, Uttarakhand

Select the correct answer using the codes.

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

Solution: b

Explanation:



Brihadishvara Temple, called **Rajarajesvaram** by its builder, and known locally as **Thanjai Periya Kovil** and **Peruvudaiyar Kovil**, is a **Shaivite Hindu temple** built in a **Chola architectural style** located on the south bank of the **Cauvery river** in **Thanjavur, Tamil Nadu, India**.

Badrinath Temple is a **Hindu Temple** dedicated to **Lord Vishnu**, it is located in Garhwal hill tracts along the banks of the **Maa Alaknanda River** in **Chamoli**.

The **Jagannath Temple** is an important **Hindu temple** dedicated to **Jagannath**, a form of **Vishnu** – one of the trinity of supreme divinity in **Hinduism**.

Q36. With reference to the Himalayan Yak, consider the following statements:

1. Yak population in the country is decreasing at an alarming rate over the years.
2. The Himalayan yak has been recently accepted as a food animal by Food Safety and Standard Authority of India.
3. Himalayan Yaks can be seen in more numbers in plains in India than Himalayas.

Which of the above statements is/are correct?

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

Solution: a

Explanation:

First and second statements are correct.

Itanagar: The Food Safety and Standard Authority of India (FSSAI) has approved the Himalayan Yak as a 'food animal'.

The move is expected to help check the decline in the population of the high-altitude bovine animal by making it a part of the conventional milk and meat industry, an official at the National Research Centre (NRC) on Yak at Dirang in West Kameng district of Arunachal Pradesh said.

Food Animals are those that are raised and used for food production or consumption by humans.

Yak population in the country is decreasing at an alarming rate over the years.

As per the latest census carried out in 2019, India has 58,000 yaks which is around 25 per cent drop from last livestock census carried out in 2012.

Third statement is incorrect:

Yaks tend to live at high altitudes because of their thick coat and vulnerability to diseases. In fact, yaks normally cannot live below 10,000 ft above sea level.

Yaks are typically accustomed to temperatures below 10-15°C (50-59°F), and can even survive down to -40°C (-40°F), but find it difficult when the mercury crosses 13°C (55°F). "The yak can efficiently conserve its body heat during cold weather conditions. What makes the yak more susceptible to heat stress is that it has minimal body mechanism to dissipate heat by way of sweating," Maiti says, adding "which is why these animals need to be kept in the temperatures suitable to them."

Q37. With respect to **Asia-Pacific Awards for Cultural Heritage Conservation Programme**, consider the following statements.

1. The programme is convened by UNESCO by recognizing the efforts of private individuals and organisations in conserving and transforming structures of heritage value in the region.
2. India won the Award of Excellence for UNESCO Asia-Pacific Awards for Cultural Heritage Conservation in 2022.

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: c

Explanation:

Restoration of Mumbai's century-old museum wins UNESCO Asia-Pacific award

The jury hailed it as a project that 'sets a standard' for the conservation of world heritage monuments

November 27, 2022 09:41 pm | Updated 09:41 pm IST - New Delhi

The restoration of the 100-year-old Chhatrapati Shivaji Maharaj Vastu Sangrahalaya in Mumbai has won the Award of Excellence in this year's UNESCO Asia-Pacific Awards for Cultural Heritage Conservation.

The UNESCO Asia-Pacific Awards for Cultural Heritage Conservation ('Awards') recognizes exemplary efforts by individuals and organizations to restore or conserve structures, places and properties of heritage value in the region. It encourages property owners to undertake conservation projects within their communities, either independently or by public-private partnerships.

Since it was first established in 2000, the Awards programme has recognized 278 projects from 27 Asia-Pacific countries for their thorough understanding of their sites; their sound technical achievements; and their demonstration of social, economic and environmental impacts at all levels. In recognizing these practices, the Awards programme has contributed to meaningful achievements in advancing a regional conversation about what

Q38. With reference to **UN Country Team (UNCT)**, consider the following statements:

1. The United Nations Country Team exists and cover all of countries where there are United Nations programmes including India.
2. It includes all the UN entities working on sustainable development, emergency, recovery and transition in programme countries.
3. It is led by the UN Resident Coordinator, who is the representative of the UN Secretary-General in a given country.

Which of the statements given above is/are correct?

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

Solution: d

Explanation:

News:

Union Minister of Environment Forest and Climate Change Shri Bhupender Yadav addresses the special meeting of UN Country Team (UNCT) on CoP 27

Posted On: 24 NOV 2022 4:03PM by PIB Delhi

The United Nations Country Team

The United Nations Country Team (UNCT) exists in 132 countries, covering all of the 162 countries where there are United Nations programmes. The UNCT includes all the UN entities working on sustainable development, emergency, recovery and transition in programme countries.

The UNCT is led by the UN Resident Coordinator, who is the representative of the UN Secretary-General in a given country. The UNCT ensures interagency coordination and decision-making at the country level. The goal is to plan and work together, as part of the Resident Coordinator system, to ensure the delivery of tangible results in support of the development agenda of the Government, including the [UN Sustainable Development Cooperation Framework](#)—which guides the UN country team's development programme cycle, in joint agreement with the host government.

Q39. With respect to **National Centre for Good Governance (NCGG)**, consider the following statements.

1. It was set up by the Government of India as an apex–level autonomous institution under the Ministry of Personnel, Public Grievances and Pensions.
2. The affairs of the NCGG are managed under the overall superintendence and direction of the Governing Body, which is headed by the Cabinet Secretary.
3. It acts as an advisory body on key issues in governance and develop synergy across various ministries and state governments.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

The National Centre for Good Governance (NCGG) was set up in 2014 by the Government of India as an apex–level autonomous institution under the Ministry of Personnel, Public Grievances and Pensions.

The Centre traces its origin to the National Institute of Administrative Research (NIAR), which was set up in 1995 by the Lal Bahadur Shastri National Academy of Administration (LBSNAA), the Government of India's topmost training institute for civil services. NIAR was subsequently rechristened and subsumed into NCGG.

Introduction

I. About the Centre

In the year 2014, National Centre for Good Governance (NCGG) was set up as an apex-level institution under the Ministry of Personnel, Public Grievances and Pensions, Government of India. It has a head office in New Delhi and branch office in Mussoorie.

NCGG deals with a gamut of governance issues from local, state to national levels, across all sectors. The Centre is mandated to work in the areas of governance, policy reforms, capacity building and training of civil servants and technocrats of India and other developing countries. It also works as a think tank of the Government of India.

As an apex level institution of the country, the Centre provides guidance to various ministries/ departments of the government and its agencies and assists in initiating good governance and promoting policy reforms.

II. Objectives

The objectives of NCGG are:

- i.) To be a think tank for governance and policy reforms, cutting across administrative, social, economic and financial spheres;
- ii.) To function as a national repository on information on best practices, initiatives and methodologies that promote good governance, e-Governance, innovation & change management within the government and its parastatal organizations;
- iii.) To initiate and participate in action research and capacity-building on various aspects of regulatory and development administration, public policy, governance and public management at the national, state and local levels;
- iv.) To advise on key issues in governance and develop synergy across various ministries/ departments of Government of India, and state governments;

Governing Body

The affairs of the NCGG are managed under the overall superintendence and direction of the Governing Body, which is headed by the Cabinet Secretary. It has Secretaries of 9 ministries/ departments and 5 eminent persons viz. academicians, eminent administrators, specialists, eminent innovators, heads of reputed institutions as members. The Director General, who is the Chief Executive of NCGG acts as the Member-Secretary of the Governing Body.

1.	Cabinet Secretary	Chairperson
2.	Secretary, D/o Administrative Reforms & PG	Vice-Chairperson
3.	Secretary, D/o Personnel and Training	Member
4.	Secretary, D/o Rural Development	Member
5.	Secretary, M/o Housing and Urban Affairs	Member

Q40. In the context of **Sangeet Natak Akademi**, consider the following statements.

1. The chairman of the members of the Akademi is appointed by the President of India.
2. The Sangeet Natak Akademi Awards are the highest national recognition conferred on practising artists.
3. The Akademi presently has at centres at Assam, Odisha, Tripura, and Kerala.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

Sangeet Natak Akademi, the apex body in the field of performing arts in the country, was set up in 1953 for the preservation and promotion of the vast intangible heritage of India's diverse culture expressed in forms of music, dance and drama.

The management of the Akademi vests in its General Council. The Chairman of the Akademi is appointed by the President of India for a term of five years.

Sangeet Natak Akademi is an autonomous body of the Ministry of Culture, Government of India.

Besides the constituent units, the Akademi presently has five centres:

1. Kutiyattam Kendra, Thiruvananthapuram for preserving and promoting the age-old Sanskrit theatre of Kerala, Kutiyattam.
2. Sattriya Kendra, Guwahati for promoting the Sattriya traditions of Assam.
3. North-East Centre, Guwahati for preserving the traditional and folk performing art traditions of north-eastern India.
4. North-East Documentation Centre, Agartala for festival and field documentation in the North-east.
5. Chhau Kendra, Chandankiyari for promoting the Chhau Dances of eastern India

The Sangeet Natak Akademi Awards are the highest national recognition conferred on practising artists.

Q41. *Melocanna baccifera* is a:

- a. bamboo species
- b. butterfly

- c. Banana species
- d. Frog species

Solution: a

Explanation:

Sweet, not protein, in bamboo fruits triggers ~~rat~~ boom: study

Melocanna baccifera, a tropical bamboo species, has long intrigued researchers for its association with the occurrence of 'bamboo death,' 'rat floods' and famines in northeast India

November 18, 2022 05:56 pm | Updated November 19, 2022 06:14 pm IST - THIRUVANANTHAPURAM

Q42. With reference to **Carbon Border Adjustment Tax**, consider the following statements:

1. It was proposed by European Union to put a fair price on the carbon emitted during the production of carbon intensive goods that are entering into member countries.
2. Currently, it is adopted by India, China, and Brazil to tax products such as cement and steel.

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: a

Explanation:

The European Union has proposed a policy — called the Carbon Border Adjustment Mechanism — to tax products such as cement and steel, that are extremely carbon intensive, with effect from 2026.

COP27 | India, China, Brazil, South Africa oppose 'carbon border tax'

The European Union has proposed a policy to tax products such as cement and steel, that are extremely carbon intensive, with effect from 2026

BASIC, a group constituting Brazil, India, South Africa and China, and therefore large economies that are significantly dependent on coal, has for several years voiced common concerns and reiterated their **right to use fossil fuel in the interim during their countries' eventual transformation to clean energy sources.**

Their joint statement expressed "grave concern" that developed countries were still not showing leadership or responding with a matching progression of effort.

Q43. With respect to **East Asia Summit (EAS)**, consider the following statements.

1. EAS brings India, China, Russia, and US on one platform together.
2. 1st EAS in 1996 led the foundation for the establishment of ASEAN.
3. EAS act as a premier Leaders-led forum for dialogue and cooperation with the aim of promoting peace, stability, and economic prosperity in East Asia.

Which of the above statements is/are correct?

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

Solution: c

Explanation:

Introduction

The East Asia Summit (EAS) process was initiated in 2005 with the convening of the 1st East Asia Summit in Kuala Lumpur, Malaysia. At its inception, the East Asia Summit comprised 16 participating countries, namely ASEAN Member States, Australia, China, India, Japan, New Zealand, and the Republic of Korea. The United States and Russian Federation joined at the 6th East Asia Summit in Bali, Indonesia on 19 November 2011.

The East Asia Summit refers to the Meeting of Heads of States/Governments of the EAS participating countries which is convened annually.

Objectives and Principles

The East Asia Summit's objectives and principles are outlined in its basic documents, including the 2005 Kuala Lumpur Declaration on the East Asia Summit, the 2010 Ha Noi Declaration on the Commemoration of the Fifth Anniversary of the East Asia Summit, the 2011 Declaration of the 6th East Asia Summit on the Principles for Mutually Beneficial Relations, the 2015 Kuala Lumpur Declaration on the 10th Anniversary of the East Asia Summit, and the 2020 Ha Noi Declaration on the 15th Anniversary of the East Asia Summit. These documents reaffirm the nature of the EAS as a premier Leaders-led forum for dialogue and cooperation on broad strategic, political, and economic issues of common interest and concern with the aim of promoting peace, stability, and economic prosperity in East Asia.

The East Asia Summit comprises eighteen participating countries, including ten ASEAN Member States, namely Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam, and Australia, **China, India**, Japan, New Zealand, the Republic of Korea, the **Russian Federation, and the United States of America**.

The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration) by the Founding Fathers of ASEAN. Second statement is incorrect.

Q44. With respect to **Commission for Scientific and Technical Terminology (CSTT)**, consider the following statements.

1. Presently, CSTT is functioning under Ministry of Science and Technology.
2. It aims is to develop infrastructure for textiles industry.

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: d

Explanation:

Commission for Scientific and Technical Terminology was established on October 01, 1961 in pursuance of a Presidential Order dated April 27, 1960 with the objective to evolve technical terminology in all Indian Languages. The Commission was established under clause (4) of Article 344 of the Constitution of India as a follow up of recommendations of a Committee in this regard. The main function of the Commission is to evolve standard terminology, propagate its use and distribute it widely. In the process of evolution of scientific and technical terminology and reference material in Hindi and Indian Languages, the Commission shall have collaboration of State Governments, Universities, Regional Text-Book Boards and State Granth Academies.

Presently, CSTT is functioning under Department of Higher Education, Ministry of Education, Government of India with its headquarters at New Delhi. Twenty two State Granth Academies / State Text-Book Boards / Universities Cells, etc. are also associated with this

Duties and Functions of the Commission

As per mandate received to the Commission for Scientific and Technical Terminology, (hereinafter would be stated as the Commission or the CSTT) following the recommendations of the Committee and the Presidential Order issued thereafter, the duties and functions of the Commission, at present can be outlined as:

- To evolve and define scientific and technical terms in Hindi and all Indian Languages and publish technical glossaries, definitional dictionaries, encyclopaedia etc.
- To see that the evolved terms and their definitions reach to students, teachers, scholars, scientists, officers etc.
- To ensure proper usage/necessary updation/correction/improvement on the work done by obtaining feedback (through Workshops/Training programmes/Orientation programmes/Seminars).

Q45. Consider the following statements.

1. The first edition of 'No Money for Terror' Conference' was recently hosted by India.
2. The Counter-Terrorism Committee (CTC) was established by Security in the wake of the 11 September terrorist attacks in the United States.

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: b

Explanation:

News:

No Money for Terror Conference will further India's efforts to build understanding and cooperation amongst nations on this issue

Posted On: 12 NOV 2022 10:57AM by PIB Delhi

Ministry of Home Affairs, Government of India is organising the 3rd Ministerial 'No Money for Terror' Conference on 18th and 19th of November in New Delhi.

The Counter-Terrorism Committee (CTC)

The Counter-Terrorism Committee (CTC) was established by Security Council resolution 1373 (2001), which was adopted unanimously on 28 September 2001 in the wake of the 11 September terrorist attacks in the United States.

The Committee, comprising all 15 Security Council members, was tasked with monitoring implementation of resolution 1373 (2001), which requested countries to implement a number of measures intended to enhance their legal and institutional ability to counter terrorist activities at home, in their regions and around the world, including taking steps to:

- Criminalize the financing of terrorism
- Freeze without delay any funds related to persons involved in acts of terrorism
- Deny all forms of financial support for terrorist groups
- Suppress the provision of safe haven, sustenance or support for terrorists
- Share information with other governments on any groups practicing or planning terrorist acts

Q46. Which of the following could be associated with the "Big Bang Theory"?

- a. The universe is collapsing and getting smaller.
- b. The universe is roughly the same at any point in time.
- c. The distance between the galaxies is also found to be increasing.
- d. Two galaxies collided causing a big bang.

Answer: c

Explanation:

The most popular argument regarding the origin of the universe is the Big Bang Theory. It is also called expanding universe hypothesis. Edwin Hubble, in 1920, provided evidence that the universe is expanding.

As time passes, galaxies move further and further apart. The distance between the galaxies is also found to be increasing and thereby, the universe is expanding.

The Big Bang Theory considers the following stages in the development of the universe.

- In the beginning, all matter forming the universe existed in one place in the form of a "tiny ball" (singular atom) with an unimaginably small volume, infinite temperature and infinite density.
- At the Big Bang, the "tiny ball" exploded violently. This led to a huge expansion. It is now generally accepted that the event of big bang took place 13.7 billion years before the present. The expansion continues even to the present day. As it grew, some energy was converted into matter. There was particularly rapid expansion within fractions of a second after the bang. Thereafter, the expansion has slowed down. Within first three minutes from the Big Bang event, the first atom began to form.
- Within 300,000 years from the Big Bang, the temperature dropped to 4,500 K and gave rise to atomic matter. The universe became transparent.

Q47. A solar flare is an increased splash of the sun's brightness. Which of the following is/are associated with solar flares?

1. Atoms
2. Electrons
3. Ions

Select the correct code:

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

Answer: d

Explanation:

Solar flares are produced when the plasma medium is heated to tens of millions of degrees kelvin, while the cosmic-ray-like electrons, protons, and heavier ions are accelerated to near the speed of light. They are emitted towards space along with other atomic particles.

Q48. Consider the following points regarding **incoming and outgoing radiation from the earth's surface**:

1. Incoming wave is shortwave whereas outgoing wave is long wave radiation.
2. Shortwave radiation contains a lot of energy whereas long wave contains less energy than shortwave.
3. Sun emits long wave radiation.

Which of the following points are correct?

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

Answer: a

Explanation:

Why is the outgoing radiation in the long waveform while incoming rays are shortwave radiation?

- ✓ Shortwave radiation (visible light) contains a lot of energy; longwave radiation (infrared light) contains less energy than shortwave radiation.
- ✓ The sun emits shortwave radiation because it is extremely hot and has a lot of energy to give off.
- ✓ Once in the Earth's atmosphere, clouds and the surface absorb the solar energy.
- ✓ The ground heats up and re-emits energy as long wave radiation in the form of infrared rays. Earth emits long wave radiation because Earth is cooler than the sun and has less energy available to give off.

Q49. Which of the following is **not** a characteristic of **Equatorial Climate**?

- a. There is no winter.

- b. The diurnal range of temperature is small, but the annual range of temperature is high.
- c. The double rainfall peaks coinciding with the equinoxes are a characteristic feature of equatorial climates not found in any other type of climate.
- d. None of the above.

Answer: b

Explanation:

Statement 2 is incorrect: The diurnal range of temperature is small, and so is the annual range.

Features of Equatorial Climate:

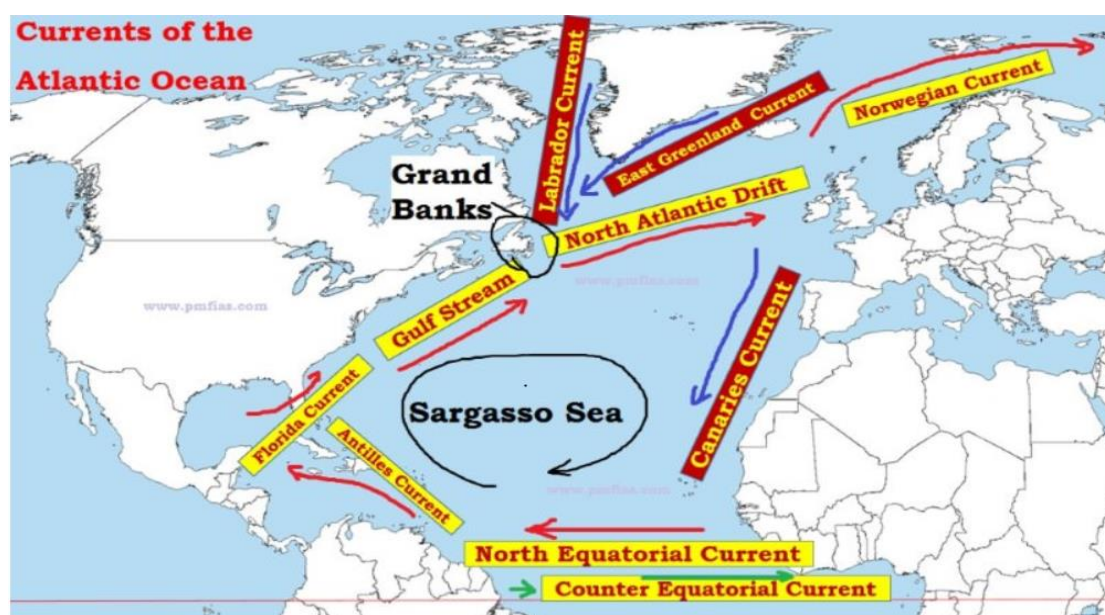
- Dominated by Maritime Tropical air masses.
- Temperature is uniform throughout the year.
- The mean monthly temperatures are always around 27° C with very little variation.
- There is no winter. Typical to Equatorial Rainforest Climate.
- Cloudiness and heavy precipitation moderate the daily temperature.
- Regular land and sea breezes assist in maintaining a truly equable climate.
- The diurnal range of temperature is small, and so is the annual range.

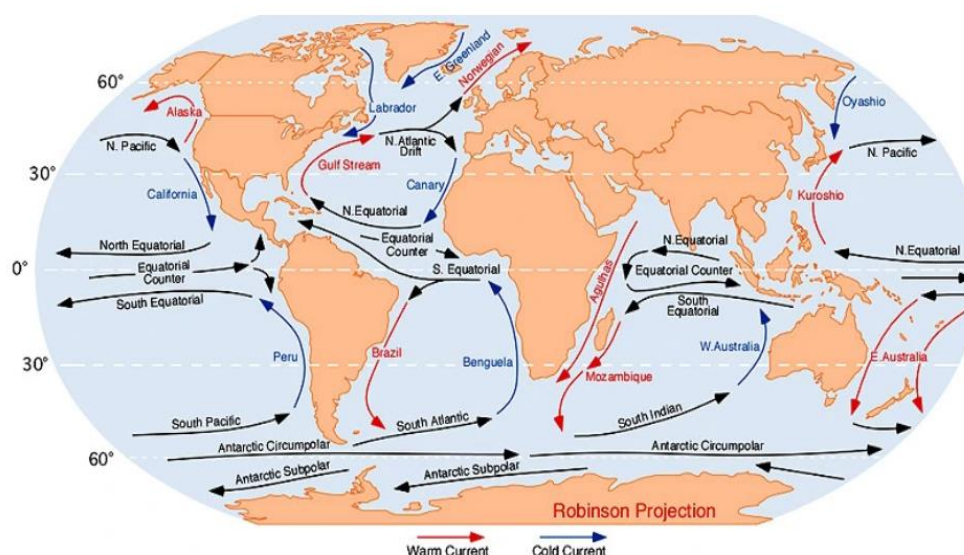
Q50. Which of the following current does not bound the Sargasso Sea?

- a. Gulf Stream
- b. North Atlantic Current
- c. Canary Current
- d. Labrador Current

Answer: d

Explanation:





Q51. Which of the following factors aid the formation of **Counter-Equatorial current**?

1. Piling up of water in the western pacific due to trade winds.
2. The presence of doldrums.
3. Piling of water in the western part of oceans due to rotation of earth.

Select the correct answer using the code given below:

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

Answer: c

Explanation:

Additional info about Equatorial Pacific Ocean Currents

- Under the influence of prevailing trade winds [tropical easterlies], the north equatorial current and the south equatorial current start from the eastern pacific (west coast of Central America) and traverses a distance of 14,500 km moving from east to west. Counter equatorial current
- This raises the level of western pacific (near Indonesia and Australia) ocean by few centimeters. And this creates a counter-equatorial current which flows between the north equatorial current and the south equatorial current in west-east direction.
- Piling up of water in the western pacific due to trade winds.
- The presence of doldrums (equatorial low pressure belt) in between the north equatorial current and the south equatorial current. Doldrums are narrow regions with calm (lower) atmospheric conditions. Such conditions aid the backward movement of piled up western pacific waters.
- Piling of water in the western part of oceans due to rotation of earth.

Q52. The climate and weather of a region largely depends on which of the following?

1. Distance from equator.
2. Height above Mean Sea Level (MSL).
3. Distance from International Date Line.

Select the correct code:

- a. 1 and 2 only
- b. 1 and 3 only
- c. 3 only D.
- d. 1, 2 and 3

Answer: a

Explanation:

Statement 3 is incorrect : Distance from International Date Line indirectly refers to the longitude of a place, which has no bearing on a place's weather or climate.

Additional Information

- Places farther from equator are likely to have lesser rainfall and a colder climate.
- Altitude affects the temperature of a place.
- Places at higher Mean Sea Level (MSL) are more likely to be colder than those at lower MSL.
- Distance from International Date Line indirectly refers to the longitude of a place, which has no bearing on a place's weather or climate.
- Places close to large lakes or sea are more likely to have moderate weather due to the blowing of land and sea breezes.

Other factors affecting climate are:

- ✓ distance from the sea.
- ✓ ocean currents
- ✓ direction of prevailing winds.
- ✓ shape of the land (known as 'relief' or 'topography')
- ✓ distance from the equator.
- ✓ the El Niño phenomenon.

Q53. If the "Currency in Circulation" is increasing in the economy then it represents/means:

1. Monetary Base is increasing
2. Money Supply is increasing
3. Money Multiplier is increasing
4. RBI's assets are increasing

Select the correct code.

- a. 1, 2 and 4 only
- b. 1 and 2 only

- c. 2 and 4 only
- d. 1, 2, 3 and 4

Solution: a

Explanation:

The correct answer for the above question is (a). Following is the explanation:

If "Currency in circulation is increasing" that means RBI is pumping more cash into the economy. This can happen in several ways:

1. RBI purchase physical gold from the market and print extra cash and pay for it. RBI's assets (physical gold) will increase and Liabilities (cash/currency) will also increase that means "monetary base" also increases.
2. RBI purchases "govt bonds" from the market and prints extra cash to pay for the bonds. RBI's assets (govt bonds) will increase and Liabilities (cash/currency) will also increase that means "monetary base" also increases.
3. RBI is purchasing extra dollars (from foreign investors coming to India or from exporters) and printing cash/currency (rupee) and paying for it. RBI's assets (dollars) will increase and liabilities (cash/currency) will also increase that means "monetary base" also increases.

Now, you all know that,

Money Supply = Money Multiplier X Monetary Base

Since in the above 3 examples, "Monetary Base" is increasing HENCE "Money Supply" will (also) increase and "Money Multiplier" will remain constant.

(Money Multiplier will change only when if there is change in behaviour of people or RBI changing CRR/SLR)

And you all must understand that when RBI's liabilities increase (which is also called monetary base), RBI's assets will also increase. It's very simple logic, I explained above.

This is a subject which should be conceptually clear. Just "mug up" karne se kaam nahin chalega. While studying this subject, the focus should always be on understanding.

Q54. Consider the following statements.

1. MSP does not have any legal backing till now and farmers can't demand it as a right.
2. The Commission for Agricultural Costs & Prices (CACP) is a statutory body which came into existence in 1965.
3. After Commission finalizes and submit its recommendations to the government, government circulates the CACP reports to state governments for their comments.
4. Cabinet Committee on Economic Affairs of the Union government takes a final decision on the level of MSPs and other recommendations made by CACP.

Which of the above statements is/are correct?

- a. 1 and 3 only
- b. 1 and 4 only
- c. 1, 3 and 4 only

- d. 1, 2, 3 and 4

Solution: c

Explanation:

The Commission for Agricultural Costs & Prices (CACP) is an attached office of the Ministry of Agriculture and Farmers Welfare, Government of India. **It came into existence in January 1965.**

CACP, which recommends MSP, is again not a statutory body and it's just an office attached to Ministry of Agriculture. CACP just recommends MSP but the decision on fixing and even not fixing and its implementation lies with Govt.

Currently, the Commission comprises a Chairman, Member Secretary, one Member (Official) and two Members (Non-Official). The non-official members are representatives of the farming community and usually have an active association with the farming community.

CACP submits its recommendations to the government in the form of Price Policy Reports every year, separately for five groups of commodities namely Kharif crops, Rabi crops, Sugarcane, Raw Jute and Copra. Before preparing aforesaid five pricing policy reports, the Commission draws a comprehensive questionnaire, and sends it to all the state governments and concerned National organizations and Ministries to seek their views. Subsequently, separate meetings are also held with farmers from different states, state governments, National organizations like FCI, NAFED, Cotton Corporation of India (CCI), Jute Corporation of India (JCI), trader's organizations, processing organizations, and key central Ministries. The Commission also makes visits to states for on-the-spot assessment of the various constraints that farmers face in marketing their produce, or even raising the productivity levels of their crops. Based on all these inputs, the Commission then finalizes its recommendations/reports, which are then submitted to the government. The government, in turn, circulates the CACP reports to state governments and concerned central Ministries for their comments. After receiving the feed-back from them, the Cabinet Committee on Economic Affairs (CCEA) of the Union government takes a final decision on the level of MSPs and other recommendations made by CACP. Once this decision is taken, CACP puts all its reports on the web site for various stakeholders to see the rationale behind CACP's price and non-price recommendations.

MSP does not have any legal backing till now and farmers cannot demand it as a right. It's just government policy and an administrative decision to purchase food grains at MSP.

Q55. Government declares MSP which is at least 50% over cost of production. This cost includes:

1. Actual paid out cost on rentals
2. Rentals forgone on owned land
3. Depreciation on agricultural implements
4. Actual storage cost post-harvest

Select the correct code.

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

Solution: a

Explanation:

Try to understand things in detail:

Swaminathan Commission (Dr. MS Swaminathan) had recommended that MSPs should be at least 50% more than the average production cost. Govt accepted this recommendation in the budget 2018-19 and accordingly announces the MSP which is at least 50% over "All-India weighted average Cost of Production". (the MSP for all over India is same). Now, the cost of production can be calculated in 3 ways.

A2: (Average of actual paid out costs): It will include expenses on purchase of inputs, electricity, fertilizers, etc. If someone has taken land on lease and he is paying rent that will also be included. And if a farmer has hired labour, then that cost will also be included. But if someone is using family labour then since the farmer is not actually paying from his pocket, so it will not be included in cost. That's why the term says actual paid out costs.

A2 + FL (Covers actual paid out cost + imputed value of family labour). In this case, if the farmer is using family labour then what we calculate is if the farmer will have to hire the same labour from the market then how much he will have to pay and then it is added in A2. This is called imputed value of family labour.

C2 (More comprehensive and includes for the rentals and interest foregone on owned land and fixed capital assets on top of A2 + FL). This means that if a person has his own land, then of course he is not paying rentals and there will be no cost included in either "A2" or "A2+FL". But here in "C2" we will add the cost assuming that if the farmer has to take the same land on rent, then what would be the cost, even if he is actually not paying any rent.

So, basically in A2, if a farmer is paying rent for land, then its cost will be included and if a farmer has his own land, then the rentals (foregone/lost) will not be included as cost. And the average of both the farmer will become cost in A2 (which will basically include the rental of only one farmer). But in C2, the rentals of land of both farmers will be included, even if one of the farmers does not incur cost on rentals.

Swaminathan Committee was favouring 50% over "C2", but NDA govt in budget 2018-19 announced that it will be giving minimum 50% over "A2 + FL".

Now,

The answer to the above question is (a).

I explained today that MSP is given at least 50% over "A2 + FL", where A2 is the actual paid out costs on everything including seeds, fertilizers, equipment, labour, rentals etc. And FL is the imputed value of Family labour, in case some farmers are using family labour. So we calculated the weighted average cost of production of "those who are using hired labour" and "imputed value of family labour, for those farmers who are not using hired labour".

So, (i) statement is true

(ii) statement is not true as it is included in C2 only (check today's post)

(iv) is not true as post-harvest activities are not included in the cost

(iii) Statement is TRUE. Let me explain in detail.

If I am a farmer and producing wheat and I purchased a TRACTOR in year 2020-21, whose price is Rs. 6 lacs. And suppose I use this tractor for 10 years and after that it's of no use. Now, I should not include the entire Rs. 6 lakh amount to calculate my cost of production in the year 2020-21. Otherwise, my cost will look too high (this is not good accounting practise). And since I will also be using this equipment for the entire 10-year period, so ideally I should say that my annual cost of equipment is Rs. 60,000 (6 lakhs/10 years). Basically, average distribution of the equipment cost. This Rs. 60,000 is called DEPRECIATION (cost). (And implements means equipment)

Now, the cost of equipment is part of "A2". Because it is the cost incurred (actual paid out) by the farmer. But all the cost is not subtracted in one particular year rather its cost is uniformly distributed over the entire life of the equipment and that cost is called DEPRECIATION (cost).

So, if someone asks that A2 includes the cost on equipment purchase.....then the answer is YES. And if someone asks that A2 includes depreciation of equipmentthen the answer is again YES. Because practically both means the same thing.

Q56. Consider the following statements regarding Agriculture Census:

1. Agriculture Census is conducted quinquennially (at five-year interval).
2. The first Agriculture Census was conducted in 1970-71.
3. Since the launch of first Agriculture Census in 1970-71, the country has conducted 44 Agriculture Censuses so far.

Which of the above statements is/are correct?

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

Solution: b

Explanation:

The Department of Agriculture and Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India conducts Agriculture Censuses in India in collaboration with States/UTs following standard concepts, definitions and methodology.

Since the launch of first Agriculture Census in 1970-71, the country has conducted ten Agriculture Censuses so far and the present census with reference year 2021-22 will be 11th in the series.

Entire Census operation is conducted in three phases and operational holding is taken as statistical unit at micro level for data collection.

Based on the agriculture census data collected in three phases, the Department brings out three detailed reports analysing trends on various parameters at All India and States/UTs level.

District/Tehsil level reports are prepared by the respective States/UTs.

Q57. Consider the following statements regarding FDI/FPI:

1. FDI and FPI get attracted by higher economic growth.
2. FPI and FDI get attracted by interest rate differential.

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: a

Explanation:

FDI investment happens only in shares and FPI investment happens in shares/bonds both

When an FDI investor comes in India to invest in shares (ownership) then he targets the profit of the company.

Now try to understand that, if a country's Nominal Growth in GDP (real growth + inflation) is higher (say 12%) that means all the companies/businesses combined growth in terms of sales is also 12% (this is because GDP growth is the growth of all the businesses combined. For example: if a country has only one company and it sells Rs. 100 of goods in a year then that country GDP will be Rs. 100. And if sales increased by 12% that means GDP of that country increased by 12%. And the 12% increase is the combined effect of quantity increase (real) plus price increase (inflation)).

So, if a country's GDP growth (real + inflation) is higher that means all companies combined sales growth is higher. If sales growth is higher, say 12% (and costs are also increasing proportionately), then profit will also grow by 12%. And if profit growth is 12% then the FDI investor who has invested in shares (and gets profit every year) will also get good growth on the amount of money/capital put into shares. BUT if the FDI investor invests in a country, say, US and its nominal growth is 4% then the overall profit of all the companies combined will also grow at just 4% and hence the investor return will grow at less rate.

On this logic FDI investors go to those countries where growth is higher (real + inflation). And inflation should be normal say 4%.....this is because if inflation will increase in double digits, DON'T think that FDI investor will get more return BECAUSE in that case REAL growth will reduce. So, inflation should be normal and real growth high which will make overall nominal growth high. And the Return will depend on Nominal growth.

FPI investors invest in shares and bonds both. So, FPI investors invest in shares on the same logic as FDI investors explained above and hence they look for higher growth economies. And when FPI investors invest in bonds then they search for countries where they get higher INTEREST rate. Now, this interest rate is again higher in developing economies (because of relatively higher inflation + real interest rate)hence they look for "interest differential", which means if interest rate in US is 4% and in India it is 7% then the interest differential is 3% (7% - 4%) which is higher enough to attract FPIs.

So, FPIs are attracted both by higher growth and interest differential but FDI investors are attracted by higher growth only.

Q58. Consider the following statements.

1. If any country, for say USA, go on monetary expansion, a lot of foreign investors will come to USA leaving countries following tight monetary policy.
2. If RBI follows contractionary monetary policy, more FPIs will come to invest in India.

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: b

Explanation:

Expansionary monetary policy means, reducing interest rate. **Reducing interest rate means, FPIs will get low interest on bonds. So why they will avoid countries following expansionary policy.**

Contractionary means, high interest rates. FPIs will come here.

Q59. If interest rate in market decreases:

1. price of bond increases
2. return (yield) on that bond increases.

Select the correct code.

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

Solution: a

Explanation:

Suppose Rs. 100 bond (this is called issue price or Face Value) is issued @ interest rate 10% (which means that interest in the market is around 10%). Now if interest rate in the market decreases (the interest rate is decreasing in the market but the bond which has been issued @10% interest rate. This interest rate is fixed and it will never change) then the new bonds which will be issued will be issued at less interest rate (say 8%). Now if u want to purchase previously issued bond of Rs. 100 face value..... the holder of the bond will not give u in Rs. 100, rather he will ask for more Rupees i.e., the price of the previously issued bond will increase and suppose u purchase this bond in Rs. 125 then for your annual RETURN will be = $(Rs. 10/Rs. 125) \times 100 = 8\%$. This 8% is yield.

So, to conclude, if interest rate in market decreases, **price of bond increases and return (yield) on that bond decreases.**

Q60. Consider the following statements.

1. Every year, Central Government in consultation with the RBI, determines the inflation target in terms of the Consumer Price Index and notifies it in the Official Gazette.
2. As per the rules, when the Bank fails to meet the inflation target, Central Government shall present a report in the Parliament the reasons for failure to achieve the inflation target.
3. The first monetary policy committee (MPC) was constituted on September, 2016.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

Read below images:

The Monetary Policy Framework

In May 2016, the RBI Act, 1934 was amended to provide a statutory basis for the implementation of the flexible inflation targeting framework.

Inflation Target: Under Section 45ZA, the Central Government, in consultation with the RBI, determines the inflation target in terms of the Consumer Price Index (CPI), once in five years and notifies it in the Official Gazette. Accordingly, on August 5, 2016, the Central Government notified in the Official Gazette 4 per cent Consumer Price Index (CPI) inflation as the target for the period from August 5, 2016 to March 31, 2021 with the upper tolerance limit of 6 per cent and the lower tolerance limit of 2 per cent. On March 31, 2021, the Central Government retained the inflation target and the tolerance band for the next 5-year period – April 1, 2021 to March 31, 2026.

Section 45ZB of the RBI Act provides for the constitution of a six-member Monetary Policy Committee (MPC) to determine the policy rate required to achieve the inflation target.

Failure to Maintain Inflation Target: The Central Government has notified the following as the factors that constitute failure to achieve the inflation target: (a) the average inflation is more than the upper tolerance level of the inflation target for any three consecutive quarters; or (b) the average inflation is less than the lower tolerance level for any three consecutive quarters.

o Where the Bank fails to meet the inflation target, it shall set out in a report to the Central Government:

- a. the reasons for failure to achieve the inflation target;
- b. remedial actions proposed to be taken by the Bank; and
- c. an estimate of the time-period within which the inflation target shall be achieved pursuant to timely implementation of proposed remedial actions.

The operating framework of monetary policy aims at aligning the operating target – the weighted average call rate (WACR) – with the policy repo rate through proactive liquidity management to facilitate transmission of repo rate changes through the entire financial system, which, in turn, influences aggregate demand – a key determinant of inflation and growth.

The Monetary Policy Committee

Section 452B of the amended RBI Act, 1934 provides for an empowered six-member monetary policy committee (MPC) to be constituted by the Central Government by notification in the Official Gazette. The first such MPC was constituted on September 29, 2016. The present MPC members, as notified by the Central Government in the Official Gazette of October 5, 2020, are as under:

1. Governor of the Reserve Bank of India—Chairperson, ex officio;
2. Deputy Governor of the Reserve Bank of India, in charge of Monetary Policy—Member, ex officio;
3. One officer of the Reserve Bank of India to be nominated by the Central Board—Member, ex officio;
4. Prof. Ashima Goyal, Professor, Indira Gandhi Institute of Development Research —Member;
5. Prof. Jayanth R. Varma, Professor, Indian Institute of Management, Ahmedabad—Member; and
6. Dr. Shashanka Bhide, Senior Advisor, National Council of Applied Economic Research, Delhi—Member.

(Members referred to at 4 to 6 above, will hold office for a period of four years or until further orders, whichever is earlier)

The MPC determines the policy repo rate required to achieve the inflation target.

The MPC is required to meet at least four times in a year. The quorum for the meeting of the MPC is four members.

Each member of the MPC has one vote, and in the event of an equality of votes, the Governor has a second or casting vote.

Each Member of the Monetary Policy Committee writes a statement specifying the reasons for voting in favour of, or against the proposed resolution.

Q61. Consider the following statements.

1. The Reserve Bank of India is the custodian of the country's foreign exchange reserves.
2. When RBI purchase more dollars from Forex Reserve, it aims to make our exports more competitive.

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: c

Explanation:

The Reserve Bank of India (RBI) is the custodian of the country's foreign exchange reserves and is vested with the responsibility of managing their investment. The basic parameters of the Reserve Bank's policies for foreign exchange reserves management are safety, liquidity and returns. The legal provisions governing management of foreign exchange reserves are laid down in the RBI Act, 1934. In brief, the law broadly permits the following investment categories:

- a) deposits with other central banks and the BIS;
- b) deposits with commercial banks overseas;
- c) debt instruments representing sovereign/sovereign-guaranteed liability with residual maturity for the debt papers not exceeding 10 years;
- d) other instruments / institutions as approved by the Central Board of the RBI in accordance with the provisions of the Act;
- e) Investment, sale, purchase and deposits in gold; and
- f) dealing in certain types of derivatives.

Purchase more dollar means, rupee will be more. When something is more, value of that thing (here rupee) decreases. Value decreased means, Depreciation. Depreciation promotes domestic growth and exports.

Q62. With respect to regulation of Over-the-Top Platforms (OTT) Platforms in India, consider the following statements.

1. The rules provide for self-classification of the content on OTT without any involvement of Central Board of Film Certification.
2. OTT platforms must display age-based content rating and content descriptor for each content.
3. Every publisher should appoint a Grievance Officer based in India for receiving and redressing grievances in 15 days.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

All statements are correct.

As of now, the Centre has notified the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021 to regulate OTT platforms like Amazon Prime, Netflix India and others.

In India's regulatory parlance, OTT platforms are called 'publishers of online curated content'.

Online curated content is audio-visual content such as films, web-series, podcasts etc. made available to the viewers on demand, including but not limited through subscription by OTT platforms.

- (u) 'publisher of online curated content' means a publisher who, performing a significant role in determining the online curated content being made available, makes available to users a computer resource that enables such users to access online curated content over the internet or computer networks, and such other entity called by whatever name, which is functionally similar to publishers of online curated content but does not include any individual or user who is not transmitting online curated content in the course of systematic business, professional or commercial activity;

As of now, **the Centre has notified the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021** to regulate OTT platforms like Amazon Prime, Netflix India and others. This means that currently, OTT platforms have a self-regulatory mechanism.

Unlike movies released in theatres, OTT platforms have **no involvement of the Central Board of Film Certification and give their content a self-evaluated certification.**

SELF REGULATING MECHANISM - LEVEL I

11. Self-Regulating mechanism at Level I.— (1) The publisher shall be the Level I of the self-regulating mechanism.

(2) ✓ A publisher shall—

- (a) establish a grievance redressal mechanism and shall appoint a Grievance Officer based in India, who shall be responsible for the redressal of grievances received by him;
- (b) display the contact details related to its grievance redressal mechanism and the name and contact details of its Grievance Officer at an appropriate place on its website or interface, as the case may be;
- (c) ensure ~~that~~ the Grievance Officer takes a decision on every grievance received by it within ~~fifteen days~~, and communicate the same to the complainant within the specified time: ✗

Q63. What is Hindu rate of growth in Indian economy?

- a. lower annual growth rate of the economy of India before the economic reforms of 1991.
- b. When GDP of a country remains negative for two years continuously.
- c. Despite GDP growth, there is no growth in livelihood and employment opportunities.
- d. When growth is mainly led by both male and female members of society.

Solution: a

Explanation:

The Hindu rate of growth is a term used by economists to describe a slowdown in the economy of India due to several factors. The term 'Hindu rate of growth' refers to the lower annual growth rate of the economy of India before the economic reforms of 1991.

The Hindu rate of growth signifies a time in Indian economic history when the growth in India stagnated at around 3.5 percent from the 1950s to the 1980s, while per capita income growth averaged around 1.3 percent, leading to one of the lowest periods of economic growth.

Q64. With respect to '**stromatolite rock**', consider the following statements.

- 1. A stromatolite is a layered sedimentary rock created by microorganisms.
- 2. As such, stromatolite fossils preserve records of cyanobacteria, commonly known as blue-green algae.
- 3. Stromatolite fossil park is in Tamil Nādu.

Which of the above statements is/are correct?

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

Solution: a

Explanation:

What is the significance of Jhamarkotra?

A short, dusty climb from the Jhameshwar Mahadev pond, with no wall, fence or signboard, lies a stromatolite fossil park: it hosts stromatolites dating back 1.8 billion years, exhibiting a variety of textures and sizes.

A stromatolite is a layered sedimentary rock created by microorganisms. As such, stromatolite fossils preserve records of cyanobacteria, commonly known as blue-green algae – the earliest life on the planet. These organisms developed the ability to photosynthesise and make their own food. By doing so, they pumped large quantities of oxygen into the atmosphere of primeval earth, allowing most other life to evolve and flourish.



Stromatolites are sometimes called 'crocodile-skin rock' due to their unusual textures. In this case, the texture was the result of the carbonate matrix eroding away more easily than the phosphate-rich minerals. | Photo Credit: Devayani Khare

Cyanobacteria live in shallow waters; their quest for sunlight, for photosynthesis, caused them to trap sediments and deposit them as lens-like layers. The resulting stromatolites allowed their colonies to expand and flourish – almost like microbial reefs.

Jhamarkotra's fossils are phosphate-rich because the trapped sediments were mainly phosphate minerals. These fossils are part of the reason why the region is a thriving mining hub today: the phosphate

The park is in Rajasthan. Third statement is incorrect.

In same article, there is also ZAWAR. See that also.

What is at Zawar?

Another interesting geoheritage site lies some 40 km south of Udaipur: Zawar, the world's oldest known zinc-smelting site. It is of archaeological and metallurgic importance.

The landscape around Zawar bears numerous traces of zinc mining and smelting operations in ancient times, including open stopes, trenches, chambers, galleries, shafts, and open-pit mines. The discovery here of earthen retorts – brinjal-shaped, long-necked vessels – is particularly significant: their presence here suggests Zawar had a unique zinc-smelting legacy.

Q65. With respect to NASA-ISRO Synthetic Aperture Radar (NISAR) satellite, consider the following statements.

1. NISAR is the first satellite mission that will collect radar data in two microwave bandwidth ranges: L-band and S-band.
2. It is a type of remote-sensing technology that uses radars instead of optical sensors to create high-resolution images of the earth's surface.
3. NISAR will image the entire land and ice masses of the earth four to six times a month.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

The facts

- The Indian Space Research Organisation (ISRO) on March 7 received the NASA-ISRO Synthetic Aperture Radar (NISAR) satellite from the U.S. space agency in Bengaluru.
- NASA and ISRO are jointly working on the all-weather, earth-observing mission scheduled for launch in 2024.

The background

- NISAR is the first satellite mission that will collect radar data in two microwave bandwidth ranges: L-band (1-2 GHz, commonly used for satellite communication and remote sensing) and S-band (2-4 GHz, commonly used for satellite communication and weather monitoring). ‘
- ‘SAR’ is a type of remote-sensing technology that uses radars instead of optical sensors to create high-resolution images of the earth's surface. It can penetrate clouds and vegetation to generate accurate data.
- NISAR will image the entire land and ice masses of the earth four to six times a month. The output is expected to be available within a couple of days of the observation and within hours in cases of disasters.

✓ Why it matters

NASA and ISRO plan to accomplish the following through NISAR:

- **Disaster mapping:** A collection of pre-disaster images will be used to better understand disasters and inform official policy on the best courses of action in future. Satellite observations will also be uninterrupted by weather, thus providing quick and reliable information for rescue operations and loss estimates.
- **Changes in permafrost:** NISAR will be programmed to observe global changes in permafrost at regular intervals, updating scientists about its degradation, with implications for global water resources, aquatic ecosystems, coastal water levels, etc.
- **Forests:** Forests provide timber, fuel, and a variety of products, act as carbon sinks (sequestering excess carbon in the atmosphere), purify air and water resources, and are habitats for multiple plant and animal species. NISAR will monitor global forest resources, their extent, and quality and provide information for their sustainable development and management.
- **Agriculture and food security:** SAR imaging of crop rotation, growth, and harvest can be used to streamline planned agricultural output and monitor the health of crops.

Q66. Individual Satyagraha 1940-41 was started soon after:

- a. Desai – Liaquat Pact
- b. Quit India movement,
- c. August Offer
- d. Gandhi Irwin Pact

Solution: c

Explanation:

Viceroy Linlithgow made a set of proposals called the 'August offer'. For the first time, the right of Indians to frame their own constitution was acknowledged.

The INC rejected this offer at its meeting at Wardha in August 1940. It demanded complete freedom from colonial rule. Jawaharlal Nehru remarked that the dominion status concept was as dead as a doornail. The League also rejected the offer saying that nothing short of partitioning the country would be acceptable to them.

After this, Mahatma **Gandhi initiated the Individual Satyagraha** to affirm the right to free speech. He avoided a mass satyagraha because he did not want violence.

Q67. The Indian National Army (INA) was created by Netaji Subhash Chandra Bose near the

- a. Swadeshi Movement
- b. First World War
- c. Second World War

d. Civil Disobedience Movement

Solution: c

Explanation:

The Indian National Army was an armed force formed by Indian nationalists in 1942 in Southeast Asia during World War II.

Its aim was to secure Indian independence from British rule. It formed an alliance with Imperial Japan in the latter's campaign in the Southeast Asian theatre of WWII.

The army was first formed in 1942 under Mohan Singh, by Indian Prisoners of Wars of the British-Indian Army captured by Japan in the Malayan campaign and in Singapore.

This first INA collapsed and was disbanded in December that year after differences between the INA leadership and the Japanese military over its role in Japan's war in Asia.

It was revived under the leadership of Subhas Chandra Bose after his arrival in Southeast Asia in 1943.

The creation of the INA by Netaji Subhash Chandra Bose during the Second World War was the clearest manifestation of the linkages established between India and overseas Indians during the freedom struggle.

Q68. Consider the following statements regarding Monkeypox disease.

1. Monkeypox is a viral zoonotic disease that occurs primarily in tropical rainforest areas of Central and West Africa.
2. Monkeypox virus is transmitted from one person to another by contact with lesions, body fluids, respiratory droplets.
3. There is a vaccine to protect from Monkeypox.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

Image form WHO website:

- Monkeypox is caused by monkeypox virus, a member of the Orthopoxvirus genus in the family Poxviridae.
- Monkeypox is a viral zoonotic disease that occurs primarily in tropical rainforest areas of Central and West Africa and is occasionally exported to other regions.
- Monkeypox typically presents clinically with fever, rash and swollen lymph nodes.
- Monkeypox virus is mostly transmitted to people from wild animals such as rodents and primates, but human-to-human transmission also occurs.
- Monkeypox virus is transmitted from one person to another by contact with lesions, body fluids, respiratory droplets and contaminated materials such as bedding.
- Typically, up to a tenth of persons ill with monkeypox may die, with most deaths occurring in younger age groups.
- The clinical presentation of monkeypox resembles that of smallpox, a related orthopoxvirus infection which was declared eradicated worldwide in 1980.
- Vaccinia vaccine used during the smallpox eradication programme was also protective against monkeypox. A new third generation vaccinia vaccine has now been approved for prevention of smallpox and monkeypox. Antiviral agents are also being developed.

Q69. With respect to 'Mononucleosis', consider the following statements.

1. It is mainly caused by influenza virus.
2. It is a contagious viral illness spreads via bodily fluids and saliva.

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: b

Explanation:

More formally called mononucleosis, it is a disease that is primarily spread by contact with saliva (which is why it is called 'kissing disease') and causes extreme fatigue for weeks. Epstein-Barr virus (EBV) is the most common cause, but other viruses can also cause this disease. It is common among teenagers and young adults, especially college students. It now emerges that EBV can cause seven other related diseases: systemic lupus erythematosus; multiple sclerosis; rheumatoid arthritis; juvenile idiopathic arthritis; inflammatory bowel disease; celiac disease; and type 1 diabetes. A protein produced by the EBV, called EBNA-2, binds to multiple locations along the human genome that are associated with these seven diseases. According to the Centers for Disease Control and Prevention, EBV is a member of the herpes virus family. — Science Daily

Q70. Consider the following statements.

1. India's installed renewable energy capacity has increased since 2018, but failed to achieve a renewable energy capacity target of 175 GW by 2022.

2. Against the overall target of 40 GW, less than 10 GW of rooftop solar projects could be installed in the country.
3. India has achieved the wind installation target of 60 GW by 2022.

Which of the above statements is/are correct?

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

Solution: a

Explanation:

News:

India misses RE capacity target due to low solar rooftop, wind energy project installations: Parliamentary panel

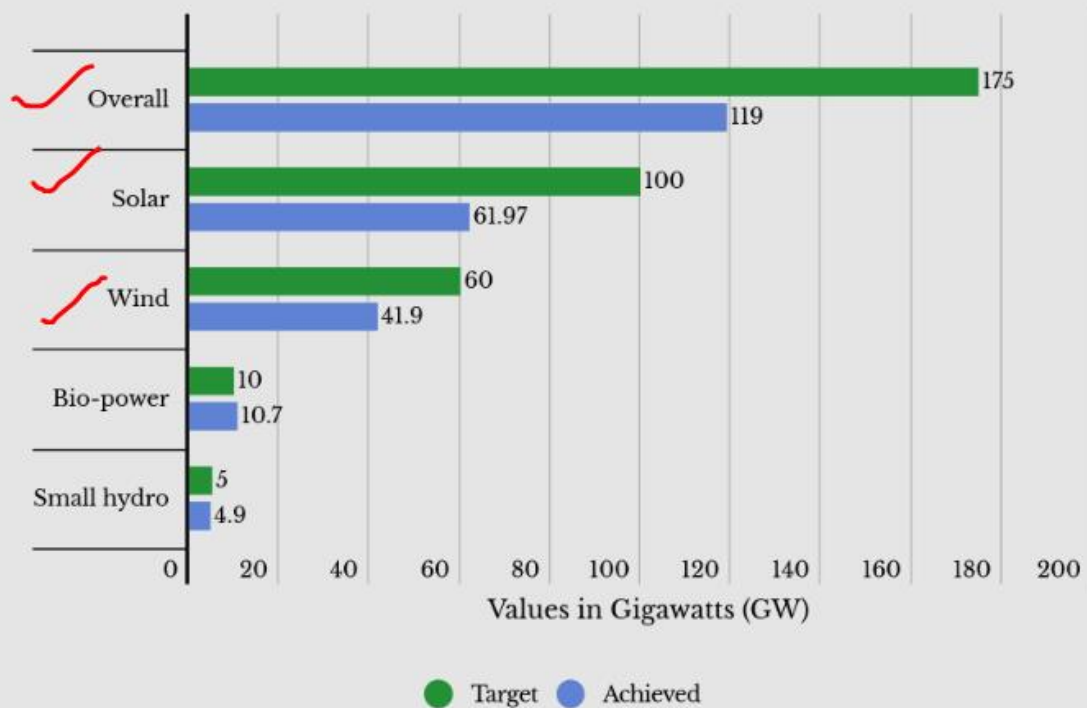
India set an ambitious target of installing 175 GW of renewable energy capacity by the year 2022, which included 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro-power

A parliamentary panel has attributed low installation of solar roof-top and wind energy projects as key reasons for the shortfall in achieving India's renewable energy capacity target of 175 GW by 2022.

India set an ambitious target of installing 175 GW of renewable energy capacity by the year 2022, which included 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro-power.

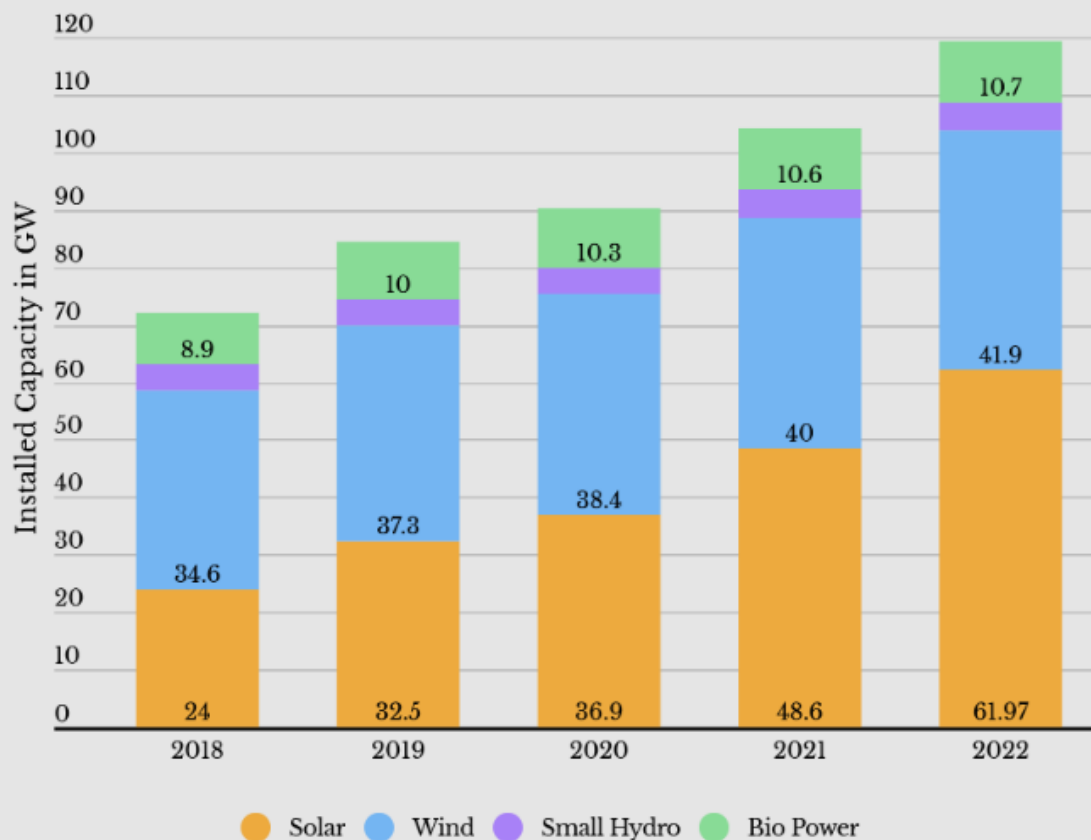
However, a renewable energy capacity of 120.90 GW has been installed in the country as of December 31, 2022, which is about 69 per cent of the overall target, the Standing Committee on Energy said in a report.

India Fell Short of its 2022 Overall RE Target by 32%



Source: Installed Capacity Report, Central Electricity Authority, November 2022

✓ India's Installed Renewable Capacity Increased 66% Since 2018



Source: Installed Capacity Report, 2018-2022, published by Central Electricity Authority (CEA)

Note: All values are as of November that year

Q71. Consider the following statements regarding 'Deepfakes'?

1. They are digital media - video, audio, and images edited and manipulated using Artificial Intelligence.
2. GAN neural network technology is used in the development of all deepfake content, using generator and discriminator algorithms.
3. Under Information Technology Act, 2000, deepfake technology is completely prohibited in India.

Which of the above statements is/are correct?

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

Solution: a

Explanation:

Deepfake AI is a type of artificial intelligence used to create convincing images, audio and video hoaxes. Deepfakes often transform existing source content where one person is swapped for another. They also create entirely original content where someone is represented doing or saying something they didn't do or say.

How do deepfakes work?

Deepfakes uses two [algorithms](#) -- a generator and a discriminator -- to create and refine fake content. The generator builds a training [data set](#) based on the desired output, creating the initial fake digital content, while the discriminator analyzes how realistic or fake the initial version of the content is. This process is repeated, allowing the generator to improve at creating realistic content and the discriminator to become more skilled at spotting flaws for the generator to correct.

The combination of the generator and discriminator algorithms creates a generative adversarial network. A [GAN](#) uses deep learning to recognize patterns in real images and then uses those patterns to create the fakes. When creating a deepfake photograph, a GAN system views photographs of the target from an array of angles to capture all the details and perspectives. When creating a deepfake video, the GAN views the video from various angles.

Third statement is incorrect. There is no exclusive legislation for deepfake.

Need for legislation

Currently, very few provisions under the Indian Penal Code (IPC) and the Information Technology Act, 2000 can be potentially invoked to deal with the malicious use of deepfakes. Section 500 of the IPC provides punishment for defamation. Sections 67 and 67A of the Information Technology Act punish sexually explicit material in explicit form. The Representation of the People Act, 1951, includes provisions prohibiting the creation or distribution of false or misleading information about candidates or political parties during an election period. But these are not enough. The Election Commission of India has set rules that require registered political parties and candidates to get pre-approval for all political advertisements on electronic media, including TV and social media sites, to help ensure their accuracy and fairness. However, these rules do not address the potential dangers posed by deepfake content.

Q72. Consider the following statements regarding **International Renewable Energy Agency (IRENA)**.

1. It was established at Earth Summit', held in Brazil, 1992.
2. IRENA promotes the widespread adoption of all forms of renewable energy, including bioenergy, geothermal, hydropower, ocean, solar and wind energy.
3. India is a member of the Global Offshore Wind Alliance (GOWA), recently initiated by IRENA.

Which of the above statemnts is/are correct?

- a. 1 only

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

Solution: c

Explanation:

Introduction

The proposal for an international agency dedicated to renewable energy was made in 1981 at the United Nations Conference on New and Renewable Sources of Energy, held in Nairobi, Kenya. The idea was further discussed and developed by major organisations in the field of renewable energy, such as Eurosolar.

As global interest in renewable energy steadily increased, world leaders convened in several settings to focus on renewable energy policies, financing and technology. Key meetings included the World Summit for Sustainable Development 2002 in Johannesburg, South Africa, the annual G-8 Gleneagles Dialogue, the 2005 Beijing International Renewable Energy Conference, and the 2004 Bonn International Renewable Energy Conference.

The Bonn conference's concluding resolution included support for the establishment of the International Renewable Energy Agency (IRENA), supported by the International Parliamentary Forum on Renewable Energies. It would take just a few years more for the idea to become reality.

The International Renewable Energy Agency (IRENA) is a lead global **intergovernmental agency for energy transformation** that serves as the principal platform for international cooperation, supports countries in their energy transitions, and provides state of the art data and analyses on technology, innovation, policy, finance and investment.

IRENA drives the widespread adoption and sustainable use of all forms of renewable energy, including bioenergy, geothermal, hydropower, ocean, solar and wind energy in the pursuit of sustainable development, energy access, and energy security, for economic and social resilience and prosperity and a climate-proof future.

Global Alliance will play major role in transforming targets into action, closing the renewable energy implementation gap while tackling economic, energy security and climate challenges.

Sharm el-Sheikh, Egypt, 8 November 2022 COP27 has seen nine new countries including Belgium, Colombia, Germany, Ireland, Japan, the Netherlands, Norway, the UK, the US join the Global Offshore Wind Alliance (GOWA), pledging to a rapid ramp up of offshore wind in order to tackle the climate and energy security crises.

The alliance, initiated by the International Renewable Energy Agency (IRENA), Denmark and the Global Wind Energy Council, will bring together governments, the private sector, international organisations and other stakeholders to accelerate the deployment of offshore wind power.

Q73. *Vallisneria*, *najas* as well as *utricularia* are:

- a. Invasive species affecting sunflower production
- b. New varieties of paddy recently approved by ICAR
- c. aquatic weeds have been posing a new threat to the paddy cultivation
- d. new frog species found in western ghats

Solution: c

Explanation:

Submerged aquatic plants, a new threat to paddy cultivation

Kannur, Ernakulam, Kottayam and Idukki districts have also recorded cases, though the incidence is less severe, she said.

Submerged aquatic weeds have been posing a new threat to the paddy cultivation in various districts in the State.

These weeds include aquatic plants like *vallisneria*, *najas* as well as *utricularia*. "Recently a weed shift has been observed in the paddy fields of Palakkad district, the rice granary of the State," noted P. Prameela, Professor & Principal Investigator, All India Coordinated Research Project (AICRP) on Weed Management, KAU, Thrissur.

Q74. Which of the following has been declared as 'longest-lived tropical cyclone on record'?

- a. Cyclone Mandoug
- b. Cyclone Freddy
- c. Cyclone Asani
- d. Cyclone Sitrang

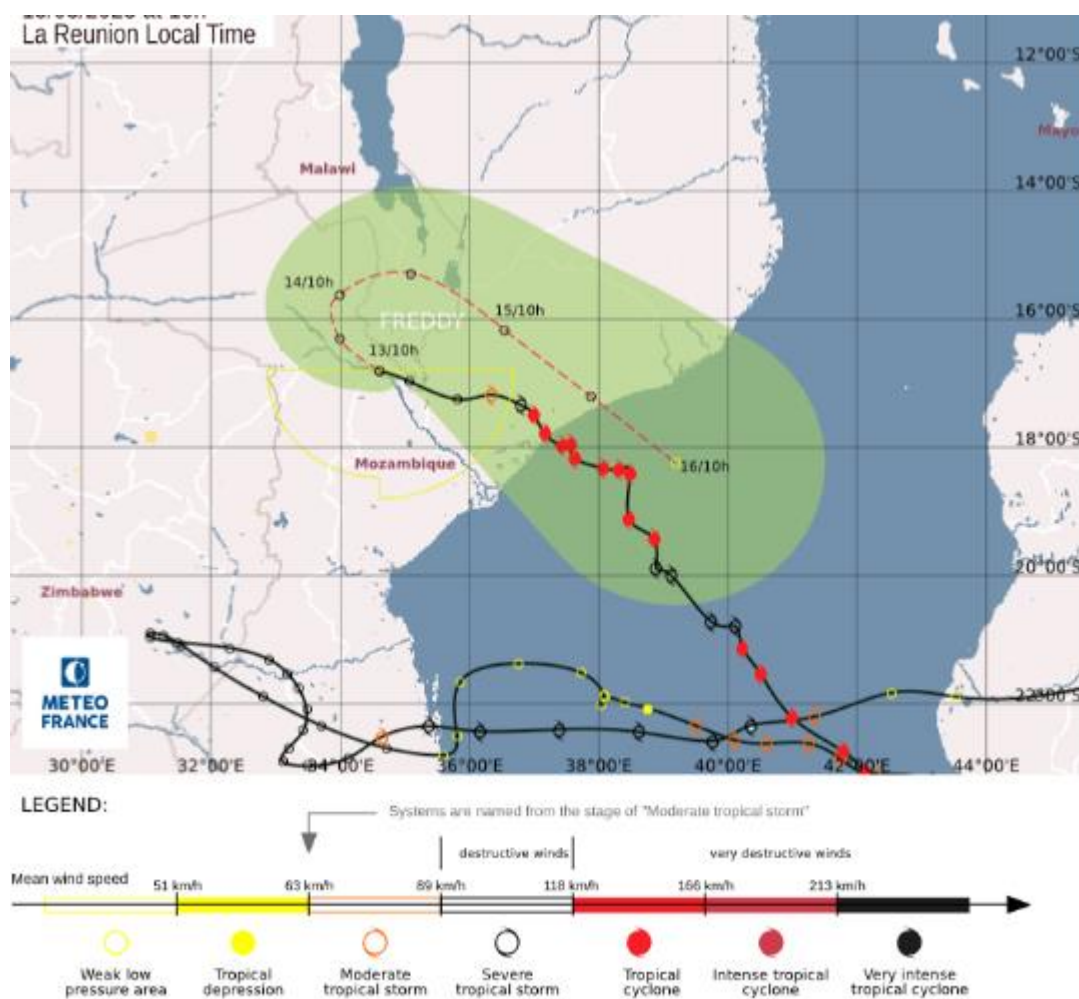
Solution: b

Explanation:

News:

Cyclone Freddy is now the longest-lived tropical cyclone on record. It has been active for 32 days over the south Indian Ocean, having made two landfalls and is likely getting ready to make another.

Freddy also holds the record for the maximum times a tropical cyclone has undergone rapid intensification at six. The second record hints at the role of global warming, specifically the heat in the oceans, in its record breaking streak.



Q75. Which of the following correctly defines the word "Maladaptation"?

- It is an adaption process specially designed for island countries to prevent extreme climatic events.
- It includes adaption not only to climate conditions, but also habitations, foods, health of entire community affected
- Adaption measure for migrant population.
- It is an adaptation measure that does not succeed in reducing vulnerability but increases it instead.

Solution: d

Explanation:

- ✓ There is increased evidence of maladaptation in various sectors and regions, highlighted the [Synthesis Report by the Intergovernmental Panel on Climate Change \(IPCC\)](#) under the Sixth Assessment Report (AR6) cycle released on March 20.
- ✓ Maladaptation is defined by the IPCC as the “changes in natural or human systems that inadvertently increase vulnerability to climate stimuli”. It is an adaptation measure that does not succeed in reducing vulnerability but increases it instead.
- ✓ “Maladaptation affects marginalised and vulnerable groups adversely,” the report further stated.

Q76. With reference to Trade-Related Investment Measures (TRIMS), which of the following statements is/are correct?

1. Aims to facilitate investment across international frontiers so as to increase the economic growth of all trading partners, particularly developing country members
2. They apply to investment measures related to trade in goods only, not services.
3. The Agreement is not concerned with the regulation of foreign investment.

Select the correct code.

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

Solution: d

Explanation:

All statements are correct.

The TRIMS Agreement

Objectives

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The objectives of the Agreement, as defined in its preamble, include "the expansion and progressive liberalization of world trade and to facilitate investment across international frontiers so as to increase the economic growth of all trading partners, particularly developing country members, while ensuring free competition".

Limitation of Coverage to Trade in Goods

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The coverage of the Agreement is defined in Article 1 which states that the Agreement applies to investment measures related to trade in goods only. Thus, the TRIMS Agreement does not apply to services.

What is a "Trade-Related Investment Measure"?

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The term "trade-related investment measures" ("TRIMs") is not defined in the Agreement. However, the Agreement contains in an annex an Illustrative List of measures that are inconsistent with GATT Article III:4 or Article XI:1 of GATT 1994.

The TRIMs Agreement and Regulation of Foreign Investment

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As an agreement that is based on existing GATT disciplines on trade in goods, the Agreement is not concerned with the regulation of foreign investment. The disciplines of the TRIMs Agreement focus on investment measures that infringe GATT Articles III and XI, in other words, that discriminate between imported and exported products and/or create import or export restrictions. For example, a local content requirement

Q77. Consider the following statements regarding Peepal Tree.

1. It plays a vital role in preserving the ozone layer and reducing air pollution.
2. Peepal tree was considered sacred and worshipped by people in Indus Valley Civilization.
3. Peepal has been considered God in Vedic texts.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

First statement is correct:

Ficus Religiosa in Latin, (sacred fig), the peepal is sacred in Indian tradition – it is also known as the Bodhi tree or Aswatha tree. Krishna said: I am the Peepal (Aswatha in Sanskrit). Vishnu was born under such a tree. In Buddhism, it is significant as Buddha achieved enlightenment under the bodhi tree and it is revered in various cultures. The tree is considered most auspicious, the abode of gods and goddesses, and is planted to the north-east of temples. It is believed that the Trimurti resides there: Brahma the roots, Vishnu the trunk and Siva the leaves (perhaps that is why the leaves are in an eternal joyous dance).

Maximum oxygen

Along with neem and tulsi, it provides the maximum oxygen and purifies the surroundings. It plays a vital role in preserving the ozone layer and reducing air pollution. Since it gives out oxygen after sunset, it is also worshipped in the evenings.

Second statement is correct.

A seal from Mohenjo-Daro found by Wheeler in the 1920's. From his 1931 text: "*The plant on the [seal] has been identified as a pipal tree, which in India is the Tree of Creation. The arrangement is very conventional and from the lower part of the stem spring two heads similar to those of the so-called unicorn.*"



Third statement is correct:

The Peepal tree is denoted as a God in the Rig Veda, is considered necessary in every yagya according to the Yajur Veda and it has been described as the abode of all the Gods in the Atharva Veda.

Q78. Which of the following is/are part of Directive Principles of State Policy (DPSP)?

1. The State shall take steps to separate the judiciary from the legislature in the public services of the State.
2. The State shall encourage settlement of international disputes by arbitration.
3. It shall be the obligation of the individual to protect every monument or place or object of artistic or historic interest declared to be of national importance.
4. The State shall promote educational and economic interests of Scheduled Castes, Scheduled Tribes.

Select the correct code.

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

Solution: c

Explanation:

First statement is incorrect:

50. Separation of judiciary from executive.—The State shall take steps to separate the judiciary from the executive in the public services of the State.

Second statement is correct:

51. Promotion of international peace and security.—The State shall endeavour to—

- (a) promote international peace and security;
- (b) maintain just and honourable relations between nations;
- (c) foster respect for international law and treaty obligations in the dealings of organised peoples with one another; and
- (d) encourage settlement of international disputes by arbitration.

Third statement is incorrect:

49. Protection of monuments and places and objects of national importance.—It shall be the obligation of the State to protect every monument or place or object of artistic or historic interest, ²[declared by or under law made by Parliament] to be of national importance, from spoliation, disfigurement, destruction, removal, disposal or export, as the case may be.

Fourth statement is correct:

46. Promotion of educational and economic interests of Scheduled Castes, Scheduled Tribes and other weaker sections.—The State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation.

Q79. The term “**Unity and Integrity**” of India can be seen in which part of Indian Constitution?

- a. Directive Principles of State Policy (DPSP), Preamble and Fundamental Duties
- b. Preamble
- c. Preamble and Fundamental Duties
- d. Fundamental Rights, DPSP and Preamble

Solution: c

Explanation:

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a ¹[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC] and to secure to all its citizens:

JUSTICE, social, economic and political;

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

EQUALITY of status and of opportunity;

and to promote among them all

FRATERNITY assuring the dignity of the individual and the ²[unity and integrity of the Nation]

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

Also, under Fundamental Duties.

FUNDAMENTAL DUTIES

51A. Fundamental duties.—It shall be the duty of every citizen of India—

(a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;

(b) to cherish and follow the noble ideals which inspired our national struggle for freedom;

(c) to uphold and protect the sovereignty, unity and integrity of India;

Q80. Consider the following statements regarding Mahatma Gandhi National Rural Employment Guarantee Act, 2005.

1. The Ministry of Panchayati Raj monitors the implementation of this scheme in association with state governments.
2. Gram Sabha is empowered to do mandatory social audit of work taken under the scheme within the Gram Panchayat.
3. MGNREGA has a provision for unemployment allowance if employment under the Scheme is not provided such employment within fifteen days of receipt of his application seeking employment.

Select the correct code.

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

Solution: c

Explanation:

MGNREGA provides a legal guarantee for **one hundred days of employment in every financial year to adult members of any rural household willing to do public work-related unskilled manual work.**

It helps in creation of durable assets (such as roads, canals, ponds and wells). It also helps in protecting the environment, empowering rural women, reducing rural-urban migration and fostering social equity.

Social Audit of MGNREGA works is mandatory, which lends to accountability and transparency.

If work is not provided within 15 days of applying, applicants are entitled to an unemployment allowance. Thus, employment under MGNREGA is a legal entitlement.

Employment is to be provided within 5 km of an applicant's residence, and minimum wages are to be paid. If the distance is above 5 km extra wage has to be paid.

The Ministry of Rural Development monitors the implementation of this scheme in association with state governments. First statement is incorrect.

Second statement is correct:

17. Social audit of work by Gram Sabha.—(1) The Gram Sabha shall monitor the execution of works within the Gram Panchayat.

(2) The Gram Sabha shall conduct regular social audits of all the projects under the Scheme taken up within the Gram Panchayat.

Third statement is correct.

7. Payment of unemployment allowance.—(1) If an applicant for employment under the Scheme is not provided such employment within fifteen days of receipt of his application seeking employment or from the date on which the employment has been sought in the case of an advance application, whichever is later, he shall be entitled to a daily unemployment allowance in accordance with this section.

Q81. Consider the following statements regarding **Bioenergy crops**.

1. Bioenergy crops create cooling effect on cultivated areas.
2. Bioenergy crops could also be used for the phytoremediation of heavy metal-contaminated soils.
3. The first-generation bioenergy crops include corn, sorghum, rapeseed and sugarcane.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

Crops from which Biofuels are produced or manufactured are popularly known as Biofuels crops.

The biofuel generation using fast growing and photosynthetically efficient bioenergy crops is emerging as a reliable alternative to fossil fuels. **Bioenergy plants increase soil carbon and fix atmospheric carbon.** In addition, bioenergy crops (miscanthus, sorghum and poplar) could also be used for **the phytoremediation of heavy metal-contaminated soils.**

The bioenergy crops include specific plants that are grown and maintained at lower costs for biofuel production. The bioenergy crops are classified into five types namely, first-, second- and third-generation bioenergy crops, dedicated energy crops and halophytes.

The first-generation bioenergy crops include corn, sorghum, rapeseed and sugarcane, whereas the second-generation bioenergy crops are comprised of switchgrass, miscanthus, alfalfa, reed canary grass, Napier grass and other plants. The third-generation bioenergy crops contain boreal plants, crassulacean acid metabolism (CAM) plants, eucalyptus and microalgae.

Q82. Consider the following statements regarding National Food Security Act, 2013.

1. Every pregnant and lactating mother is entitled to a free meal at the local anganwadi during pregnancy and six months after childbirth.
2. It also ensures food security of people of hilly and tribal areas.
3. It provides for the creation of Food Corporation of India which will facilitate the objective of said Act.

Which of the above statements is/are correct?

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

Solution: a

Explanation:

The National Food Security Act, 2013 was notified on 10th September, 2013 with the objective to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity.

THE NATIONAL FOOD SECURITY ACT, 2013

ACT NO. 20 OF 2013

[10th September, 2013.]

An Act to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity and for matters connected therewith or incidental thereto.

Every pregnant and lactating mother is entitled to a free meal at the local anganwadi (during pregnancy and six months after childbirth) as well as maternity benefits of Rs 6,000, in instalments.

First statement is correct.

4. **Nutritional support to pregnant women and lactating mothers.**—Subject to such schemes as may be framed by the Central Government, every pregnant woman and lactating mother shall be entitled to—

(a) meal, free of charge, during pregnancy and ~~six months after the child birth~~, through the local *anganwadi*, so as to meet the nutritional standards specified in Schedule II; and

(b) maternity benefit of not less than rupees six thousand, in such instalments as may be prescribed by the Central Government:

Food security to people living in hilly areas: **Second statement is correct.**

PROVISIONS FOR ADVANCING FOOD SECURITY

30. **Food security for people living in remote, hilly and tribal areas.**—The Central Government and the State Governments shall, while implementing the provisions of this Act and the schemes for meeting specified entitlements, give special focus to the needs of the vulnerable groups especially in remote areas and other areas which are difficult to access, hilly and tribal areas for ensuring their food security.

Third statement is incorrect:

The Food Corporation of India is an organization created and run by the Government of India. It is a statutory body under the Ministry of Consumer Affairs, Food and Public Distribution, Government of India, **formed by the enactment of Food Corporation Act 1964.**

Q83. Consider the following statements regarding **Biodiversity Heritage Sites (BHS)**.

1. They are set up under Environment Protection Act, 1986.
2. State Government identify Biodiversity Heritage Sites but rules are framed by the Central Government.
3. For nomination of any place for UNESCO Heritage sites, it is mandatorily to be part of Biodiversity Heritage sites.

Which of the above statements is/are **incorrect**?

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

Solution: d

Explanation:

We will try to connect points. Read complete document. **Start with Convention on Biological Diversity (CBD).**

The Convention on Biological Diversity (CBD) adopted at the Rio Earth Summit, 1992 is based on three-fold objectives: *conservation of biological diversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the utilization of genetic resources.*

The primary requirement for the first objective, as noted by CBD, is the **in-situ conservation of ecosystems and natural habitats**. To ensure in-situ conservation of biological diversity, every contracting party to the CBD is required to establish a system of Protected Areas (PA). PAs are geographical defined areas which are designated or regulated and managed to achieve specific

conservation objectives. The CBD also mandates parties to develop guidelines for selection, establishment and management of such areas.

So, what India did after reading CBD objective?

In order to fulfill the objectives of CBD, **India enacted the Biological Diversity Act, 2002 (BD Act, 2002).**

~~THE BIOLOGICAL DIVERSITY ACT, 2002~~
ACT NO. 18 OF 2003

[5th February, 2003.]

~~An Act to provide for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.~~

For its implementation, the BD Act, 2002 institutes a three-tier structure: **National Biodiversity Authority (NBA) at the apex level, State Biodiversity Boards (SBB) at state level and Biodiversity Management Committees (BMCs) at local body level.**

One of the salient features of the Act *with respect to in-situ conservation is conserve and develop areas of importance from the standpoint of biological diversity by **declaring them as biodiversity heritage sites (BHS)***. The **Act grants State Governments the power to notify areas of biodiversity importance as BHS** and in consultation with the Central Government to frame rules for their management and conservation.

~~37. Biodiversity heritage sites.—(1) Without prejudice to any other law for the time being in force, the State Government may, from time to time in consultation with the local bodies, notify in the Official Gazette, areas of biodiversity importance as biodiversity heritage sites under this Act.~~

(2) The State Government, in consultation with the Central Government, may frame rules for the management and conservation of all the heritage sites.

(3) The State Government shall frame schemes for compensating or rehabilitating any person or section of people economically affected by such notification.

BHS are well defined areas that are unique, ecologically fragile ecosystems which may be terrestrial, coastal or spread over inland /marine waters.

Third statement is incorrect:

There is no such criterion.

Q84. Which of the following functions in precision-farming are aided through GPS based applications?

1. Farm planning
2. Field mapping
3. Soil sampling
4. Fertilizers application

Select the correct answer using the code given below:

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

Solution: d

Explanation:

GPS-based applications in precision farming are being used for **farm planning, field mapping, soil sampling, tractor guidance, crop scouting, variable rate applications, and yield mapping**. By using GPS on the tractors, the entire process from levelling the field to planting the seed to irrigating the crop has been much more efficient. **So, statements (1), (2) and (3) are correct.**

GPS also allows farmers to work during low visibility field conditions such as rain, dust, fog, and darkness. Many of the new innovations rely on the integration of on-board computers, data collection sensors, and GPS time and position reference systems.

Through the use of GPS, geographic information systems (GIS), and remote sensing, the information needed for improving land and water use can also be collected.

Farmers can achieve additional benefits by **combining better utilization of fertilizers, pesticides etc.** with the GPS aided technology. **So, statement (4) is correct.**

Q85. Who is responsible for counting the votes in India?

- a. Returning Officer
- b. Chief Electoral Officer
- c. Person appointed by State or Central Government
- d. Person appointed by Judiciary

Solution: a

Explanation:

Who is responsible for counting the votes?

The **Returning Officer (RO) is responsible** for conducting elections in a constituency, which also includes counting of votes. The RO is an officer of the government or a local authority nominated by the ECI for each constituency in consultation with the state government.

Q86. Consider the following statements regarding '**Distinguished Jurist**' with respect to Indian Judiciary.

1. No distinguished jurist yet, in the opinion of President, has been appointed as judge of Supreme Court in India.
2. Distinguished Jurist' category is also applied for appointing High Court Judge.
3. A distinguished jurist is one of the members of committee to be formed to conduct investigation into misbehaviour or incapacity of Judge.

Which of the above statements is/are correct?

- a. 1 and 2 only

- b. 3 only
- c. 1 only
- d. 1 and 3 only

Solution: d

Explanation:

First statement is correct.

As per Article 124 of the Constitution of India,

(3) A person shall not be qualified for appointment as a Judge of the Supreme Court unless he is a citizen of India and—

(a) has been for at least five years a Judge of a High Court or of two or more such Courts in succession; or

(b) has been for at least ten years an advocate of a High Court or of two or more such Courts in succession; or

(c) is, in the opinion of the President, a distinguished jurist.

But no distinguished jurist yet has been appointed as a judge of Supreme Court.

Second statement is incorrect:

This 'distinguished jurist' category was added to Article 217 (appointment of High Court judges) by the 42nd Constitution amendment. But the same was deleted by the 44th Constitution Amendment.

Third statement is correct:

It is taken from Judges (Inquiry) Act, 1968

3. Investigation into misbehaviour or incapacity of Judge by Committee.—(1) If notice is given of a motion for presenting an address to the President praying for the removal of a Judge signed,—

(a) in the case of a notice given in the House of the People, by not less than one hundred members of that House;

(b) in the case of a notice given in the Council of States, by not less than fifty members of that Council;

then, the Speaker or, as the case may be, the Chairman may, after consulting such persons, if any, as he thinks fit and after considering such materials, if any, as may be available to him, either admit the motion or refuse to admit the same.

(2) If the motion referred to in sub-section (1) is admitted, the Speaker or, as the case may be, the Chairman shall keep the motion pending and constitute, as soon as may be, for the purpose of making an investigation into the grounds on which the removal of a Judge is prayed for, a Committee consisting of three members of whom—

(a) one shall be chosen from among the Chief Justice and other Judges of the Supreme Court;

(b) one shall be chosen from among the Chief Justices of the High Courts, and

(c) one shall be a person who is, in the opinion of, the Speaker or, as the case may be, the Chairman, a distinguished jurist:

Q87. As per the Constitution, 'Unsound mind' is one the way for the disqualification from membership of which of the following?

1. Member of Legislative Council.
2. Finance Commission
3. Member of Parliament
4. A Judge of the Supreme Court

Select the correct code.

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

Solution: a

Explanation:

102. Disqualifications for membership.—(1) A person shall be disqualified for being chosen as, and for being, a member of either House of Parliament—

¹[(a) if he holds any office of profit under the Government of India or the Government of any State, other than an office declared by Parliament by law not to disqualify its holder;]

(b) if he is of unsound mind and stands so declared by a competent court;

191. Disqualifications for membership.—(1) A person shall be disqualified for being chosen as, and for being, a member of the Legislative Assembly or Legislative Council of a State—

²[(a) if he holds any office of profit under the Government of India or the Government of any State specified in the First Schedule, other than an office declared by the Legislature of the State by law not to disqualify its holder;]

(b) if he is of unsound mind and stands so declared by a competent court;]

Finance Commission:

The term 'unsound mind' is mentioned not in Constitution, but Finance Commission (Miscellaneous Provisions) Act, 1951.

5. Disqualifications for being a member of the Commission.—A person shall be disqualified for being appointed as, or for being, a member of the Commission,—

(a) if he is of unsound mind;

(b) if he is an undischarged insolvent;

(c) if he has been convicted of an offence involving moral turpitude;

(d) if he has such financial or other interest as is likely to affect prejudicially his functions as a member of the Commission.

For SC judge, the criteria is not "unsound mind".

(4) A Judge of the Supreme Court shall not be removed from his office except by an order of the President passed after an address by each House of Parliament supported by a majority of the total membership of that House and by a majority of not less than two-thirds of the members of that House present and voting has been presented to the President in the same session for such removal on the ground of proved misbehaviour or incapacity.

Q88. A person shall be disqualified for being chosen as, and for being, a member of either House of Parliament:

1. if he holds any office of profit under the Government of India
2. if he is of unsound mind and stands so declared by a President
3. if he is already a member of legislative assembly
4. if he has voluntarily acquired the citizenship of a foreign State

Select the correct code.

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

Solution: a

Explanation:

102. Disqualifications for membership.—(1) A person shall be disqualified for being chosen as, and for being, a member of either House of Parliament—

¹[(a) if he holds any office of profit under the Government of India or the Government of any State, other than an office declared by Parliament by law not to disqualify its holder;]

(b) if he is of unsound mind and stands so declared by a competent court;

(c) if he is an undischarged insolvent;

(d) if he is not a citizen of India, or has voluntarily acquired the citizenship of a foreign State, or is under any acknowledgment of allegiance or adherence to a foreign State;

(e) if he is so disqualified by or under any law made by Parliament.

Q89. With respect to **Competition Commission of India (CCI)**, consider the following statements.

1. It is a statutory body of the Government of India responsible for enforcing The Competition Act, 2002 throughout India.
2. National Company Law Appellate Tribunal (NCLAT) is an appellate body for appeal against CCI.
3. The Act empowers the Commission to issue interim orders in cases of anti-competitive agreements and abuse of dominant position

Which of the above statements is/are correct?

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

Solution: d

Explanation:

Competition Commission of India is a **statutory body** of the Government of India responsible for **enforcing The Competition Act, 2002** throughout India and to prevent activities that have an appreciable adverse effect on competition in India. It was established on 14 October 2003.

¹⁷[**Selection Committee for Chairperson and Members of Commission**]

¹⁸[9.(1) The Chairperson and other Members of the Commission shall be appointed by the Central Government from a panel of names recommended by a Selection Committee consisting of –

- | | |
|--|---------------|
| a) the Chief Justice of India or his nominee | - Chairperson |
| b) the Secretary in the Ministry of Corporate Affairs | - Member |
| c) the Secretary in the Ministry of Law and Justice | - Member |
| d) two experts of repute who have special knowledge of, and professional experience in international trade, economics, business, commerce, law, finance, accountancy, management, industry, public affairs or competition matters including competition law and policy | - Member |

Powers and Functions of CCI (no need of any more functions, except given below):

- To eliminate practices having **adverse effect on competition**, promote and sustain competition, protect interests of consumers and ensure freedom of trade by other participants
- Inquire into certain agreements and dominant position of enterprise**– It provides that the Commission may either suo moto or on receipt of any information of alleged contravention of Section 3 (prohibits anti-competitive agreements) may inquire into the same.
- Inquiry into combinations**– Section 20 of the Act entrusts the Commission with the power **to inquire into any information relating to acquisition** and determine whether such combination or acquisition may have an appreciable adverse effect on competition (AAEC).
- Power to issue interim order**– Section 33 of the Act empowers the Commission **to issue interim orders in cases of anti-competitive agreements and abuse of dominant position**, thereby temporarily restraining any party from carrying on such an act.
- Competition Advocacy**– Section 49 of the Act provides for competition advocacy and enumerates that the Central or the State Government may while formulating any policy on Competition or any other matter may refer to the Commission for its opinion on possible effect of such policy on Competition. However, the **opinion given by the Commission is not binding on the Central Government**.

National Company Law Appellate Tribunal (NCLAT) is an appellate body for appeal against CCI.

Q90. Consider the following.

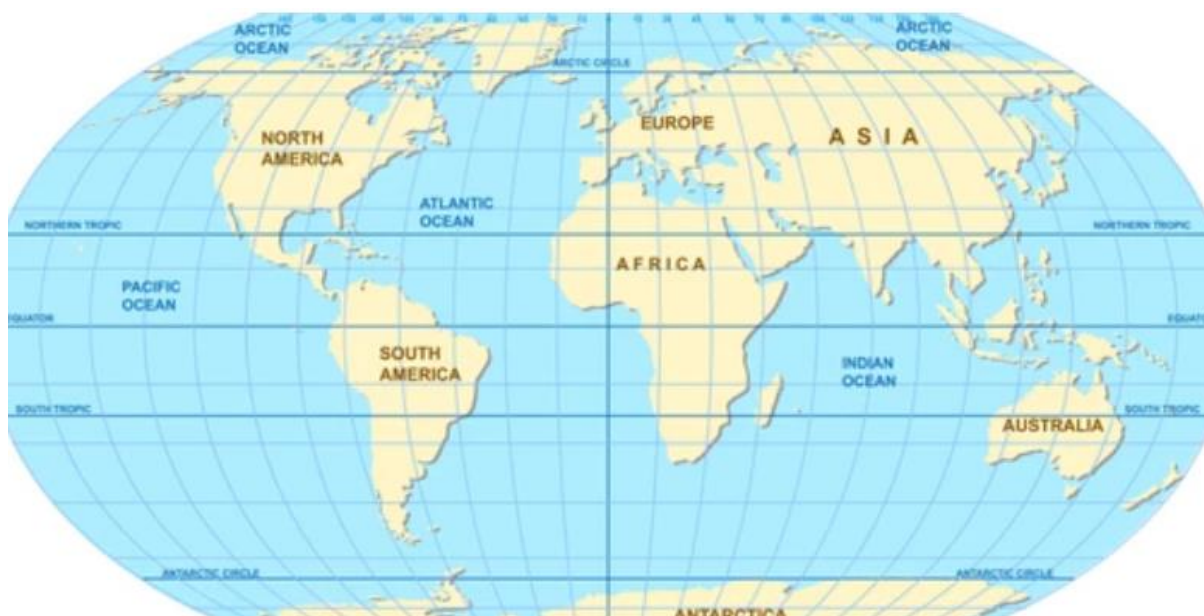
- Equator: passes through South America, Indonesia, and Africa.
- Tropic of Cancer: Passes through China and Africa
- Tropic of Capricorn: passes through Africa, Papua New Guinea

Select the correct code.

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

Solution: a

Explanation:



Q91. Consider The following statements regarding Federation of Indian Chambers of Commerce & Industry (FICCI).

1. It was established during priministership of Jawahar Lal Nehru.
2. A non-government, not-for-profit Organisation, FICCI is the voice of India's business and industry.
3. It serves its members from the Indian private and public corporate sectors and multinational companies.

Which of the above statements is/are correct?

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

Solution: b

Explanation:

Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policy makers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies.

FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policy makers and the international business community.

Q92. Consider the following statements regarding **Olive Ridleys Turtles**.

1. They're called Olive Ridleys get their name from the olive green colour of their shell.
2. The sex of the Olive Ridley turtles is determined by the temperature at which they are hatched.
3. Odisha hosts the highest number of nesting turtles in India.

Which of the above statements is/are correct?

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

Solution: d

Explanation:

The sex of the Olive Ridley turtles is determined by the temperature at which they are hatched. A male turtle is born if the egg hatches at a temperature below 29 degrees Celsius. Above that, the hatchling is a female.

They're called Olive Ridleys get their name from the olive green colour of their shell. They can grow up to two-and-a-half feet in length and weigh 30-45 kilograms. They feed mainly on shrimp, crab, molluscs, fish and crabs.

In India, they congregate on the beaches of Odisha and Maharashtra to lay eggs — a phenomenon called 'arribada', which means 'arrival by the sea' in Spanish.

Odisha hosts the highest number of nesting turtles (4-11 million).

Q93. Which of following National Park has the highest tiger density in India?

- a. Jim Corbett
- b. Kaziranga
- c. Nagarhole
- d. Orang

Solution: a

Explanation:

Uttarakhand's **Jim Corbett National Park** has reported the highest tiger density among India's 50 tiger's reserves with 14 tigers per 100 square kilometers, followed by **Kaziranga National Park in Assam, Nagarhole and Orang Tigers reserves.**

Q94. '**Dweep Vertigrow**' recently seen in news is:

- Mineral exploration method in deep sea
- A recently discovered variety of banana in Kerala
- a vertical farming models
- A coral group recently discovered in Andaman and Nicobar

Solution: c

Explanation:

ICAR-CIARI licensed "Dweep Vertigrow" in Andaman & Nicobar Islands

3rd November 2022, Port Blair

Dweep vertigrow is a vertical farming model for growing leafy vegetables in kitchen/terrace garden with a spatial coverage of 5 m² which can accommodate 100 pots and one tray (2 m²). This has the provision for soilless cultivation, rain protection and rainwater harvesting.

The system is suitable for year-round cultivation of high value leafy vegetables and other herbs besides aesthetic orchids/ornamental plants with efficient use of water, nutrients and space.

Q95. Consider the following statements regarding **Law Commission of India**.

- Parliament passed Law Commission Act 1954 and first law commission was set up in 1955.
- Since 1955, 13 Law Commission has been appointed.
- It suggests such legislations necessary to implement the Directive Principles and to attain the objectives set out in the Preamble to the Constitution.

Which of the above statemnts is/are correct?

- 1 only
- 3 only
- 2 and 3 only
- 1 and 2 only

Solution: b

Explanation:

First statement is incorrect. *Koi Act ni h Law Commission ke liye.*

About Department

Law Commission of India is a non-statutory body and is constituted by a notification of the Government of India, Ministry of Law & Justice, Department of Legal Affairs with a definite terms of reference to carry out research in the field of law and the Commission makes recommendations to the Government (in the form of Reports) as per its terms of reference. The Law

Second statement is incorrect:

The Central Government established the First Law Commission in 1955 with the then Attorney-General of India, Mr. M. C. Setalvad, as its chairman. **Recently, 22nd Law Commission was constituted.**

Third statement is correct:

The Terms of Reference of the Law Commission, inter alia, includes

- a. review/repeal of obsolete laws,
- b. to examine the Laws which affect the poor and carry out post-audit for socio-economic legislations,
- c. to keep under review the system of judicial administration to ensure that it is responsive to the reasonable demands of the times and in particular to secure,
- d. to examine the existing laws in the light of Directive Principles of State Policy and to suggest ways of improvement and reform and also **to suggest such legislations as might be necessary to implement the Directive Principles and to attain the objectives set out in the Preamble to the Constitution,**
- e. Examine the existing laws with a view for promoting gender equality and suggesting amendments thereto,
- f. to revise the Central Acts of general importance so as to simplify them and to remove anomalies, ambiguities and inequities,
- g. to examine the impact of globalization on food security, unemployment and recommend measures for the protection of the interests of the marginalized.

Q96. The '**Breakthrough Agenda Plan**' was recently seen in the news is related to:

- To take punitive measures against countries not contributing towards achieving goals of Paris Agreement.
- A methane observatory plan set up at COP 27.
- to help limit the rise in global temperature to well below 2°C (Paris Agreement)
- restoration of mangroves

Solution: c

Explanation:

✓ The **Paris Agreement** commits the world to limit the rise in global temperature to well below 2°C, and **pursue efforts to limit it to 1.5°C** (compared to pre-industrial levels).

To keep that 1.5°C target alive we must halve global emissions by 2030 and reach global net zero emissions by the middle of the century. Key to achieving this will be the **Breakthrough Agenda**, launched by a coalition of **45 world leaders**, whose countries collectively represent **over 70% of global GDP**, at the **COP26 World Leaders' Summit**.

✓ The Breakthrough Agenda is an unprecedented international clean technology plan to help keep 1.5°C in reach. It provides a framework for countries and businesses and civil society to join up and strengthen their actions every year in key emitting sectors, through a coalition of leading public, private and public-private global initiatives. This coalition of initiatives has been mapped across each sector in a series of landscape maps [linked here](#).

✓ Bringing together the tools of government with business and financial ingenuity, the Breakthrough Agenda aims to make clean technologies and sustainable solutions the most affordable, accessible and attractive option in all regions by 2030.

~~This UK COP Presidency-initiated international government-led programme will be taken forwards under the joint stewardship of Mission Innovation and Clean Energy Ministerial from COP27 onwards, with the backing of the UN High Level Champions.~~

✓ The first set of government-led Breakthrough goals launched at COP26 (known as the 'Glasgow Breakthroughs') covered **five key Emitting sectors** that together represent more

Q97. With reference to **Infrastructure Resilience Accelerator Fund (IRAF)**, recently announced at COP 27, consider the following statements.

- It was announced by Coalition for Disaster Resilient Infrastructure (CDRI).
- It will be managed by the United Nation office to support global action on disaster-resilience of infrastructure system in developing and Small Island Developing States.

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: c

Explanation:

The Coalition for Disaster Resilient Infrastructure (CDRI) announced Infrastructure Resilience Accelerator Fund (IRAF), a CDRI multi-partner trust fund, at the India Pavilion of COP27 at Sharm El Sheikh in Egypt.

IRAF, a multi-donor trust fund, established with the support of United Nations Development Programme (UNDP) and United Nations Office for Disaster Risk Reduction (UNDRR), will be managed by the United Nation Multi-Partner Trust Fund Office (UN MPTFO) in New York, to support global action on disaster-resilience of infrastructure systems, **especially in developing countries and Small Island Developing States (SIDS).**

Launched by Prime Minister Narendra Modi at the UN Climate Action Summit at New York on September 23, 2019, **the Coalition for Disaster Resilient Infrastructure (CDRI) is a partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and knowledge institutions that aims to promote the resilience of new and existing infrastructure systems to climate and disaster risks in support of sustainable development.**

Q98. With respect to **rubber cultivation in India**, consider the following statements.

1. Production of raw material by rubber cultivation is much higher than consumption in India.
2. The carbon dioxide sequestration rate of rubber trees is very high.
3. North East India constitute 90 percent of rubber production in India.

Which of the above statements is/are correct?

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

Solution: c

Explanation:

First statement is incorrect.

Posted On: 10 DEC 2021 6:38PM by PIB Delhi

Details regarding gap existing between production and consumption of raw material produced by rubber cultivation is furnished below:

(In tonne)

	2017-18	2018-19	2019-20	2020-21	2021-22 (Projection)
Production ✓	694000	651000	712000	715000	800000
Consumption ✓	1112210	1211940	1134120	1096410	1240000
Gap	418210	560940	422120	381410	440000

(Source: Rubber Board)

Second statement is correct.

4.12 Carbon market

The carbon dioxide sequestration rate of rubber trees is very high as compared to many other plant species and even tropical forests which has been thoroughly quantified by the RRII and research institutes in other countries. Production of one tonne of NR leads to absorption of 3.24 tonnes of CO₂ from the atmosphere and release of 2.35 tonnes of Oxygen.

Under the Clean Development Mechanism (CDM), one of the three forms of carbon trading mechanisms under the Kyoto Protocol, rubber planting is theoretically eligible for carbon credits that can be obtained and sold in the CDM market. Efforts would be made to solve the “additionality” criterion and other legal hurdles to make this happen.

Third statement is incorrect.

Around 85% of rubber production in the country is accounted for by Kerala and some parts of Tamil Nadu, which are considered as traditional areas of rubber cultivation.

State-wise production of NR (Tonne)

State	2015-16	2016-17	2017-18 (P)	2018-19 (P)
Kerala	438630	540400	540775	490460
Tamil Nadu	19495	21140	21110	21500
<i>Traditional Total</i>	<i>458125</i>	<i>561540</i>	<i>561885</i>	<i>511960</i>
Tripura	44245	50985	50500	53050
Assam	14560	19970	23300	24300
Meghalaya	7360	8950	9050	9100
Nagaland	3020	4320	4820	4930
Manipur	1660	2090	1790	1850
Mizoram	595	742	742	750
Arunachal Pradesh	360	478	428	450
<i>North East Total</i>	<i>71800</i>	<i>87535</i>	<i>90630</i>	<i>94430</i>

Q99. Consider the following statements regarding **Convention on the Rights of Persons with Disabilities**.

1. It is the first legally binding instrument with comprehensive protection of the rights of persons with disabilities.
 2. India has ratified United Nations Convention on Rights of Persons with Disabilities (UNCRPD).
- 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: c

Explanation:

The Convention on the Rights of Persons with Disabilities is **an international treaty that identifies the rights of persons with disabilities as well as the obligations on States parties to the Convention to promote, protect and ensure those rights.**

The Convention also establishes two implementation mechanisms: the Committee on the Rights of Persons with Disabilities, established to monitor implementation, and the Conference of States Parties, established to consider matters regarding implementation.

India is a signatory of the United Nations Convention on Rights of Persons with Disabilities (UNCRPD). It ratified this Convention on 01-10-2007 in pursuance of Article 35 of the Convention. India submitted its First Country Report on Status of Disability in India in November 2015.

Q100. Safeguarding constitutionalism lies with:

- a. Judiciary
- b. Executive
- c. Legislative
- d. All the above

Solution: d

Explanation:

We will use here interpretation of CJI Ramana, who opined that the **importance of the Judiciary should not blind us to the fact that the responsibility of safeguarding constitutionalism, lies not just on the Courts, and all the three organs of the State, i.e., the executive, legislature and the Judiciary, are equal repositories of Constitutional trust.**