

General Studies Paper I , 2019



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1. **With reference to Asian Infrastructure Investment Bank (AIIB), consider the following statements :**

1. **AIIB has more than 80 member nations.**
2. **India is the largest shareholder in AIIB.**
3. **AIIB does not have any members from outside Asia.**

Which of the statements given above is / are correct?

A 1 only

B 2 and 3 only

C 1 and 3 only

D 1, 2 and 3

Solution

- The AIIB is a multilateral development bank that has now grown to 97 approved members worldwide. Hence Statement 1 is Correct.
- India is the second-largest shareholder of the AIIB. Hence Statement 2 is Not Correct.
- India is the largest borrower from the Asian Infrastructure Investment Bank.
- Australia, New Zealand, Qatar, Canada, Cyprus etc are non-regional members. Hence Statement 3 is Not Correct.

- The Asian Infrastructure Investment Bank (AIIB) is a multilateral development bank with a mission to improve social and economic outcomes in Asia.
- It is established by the AIIB Articles of Agreement (entered into force Dec. 25, 2015) which is a multilateral treaty.
- The Parties (57 founding members) to agreement comprise the Membership of the Bank.
- It is headquartered in Beijing and began its operations in January 2016.
- The members of Bank have now grown to 97 approved members worldwide.
- There are 27 prospective members including Armenia, Lebanon, Brazil, South Africa, Greece, etc.

2. **What was the purpose of Inter-Creditor Agreement signed by Indian banks and financial institutions recently?**

A

To lessen the Government of India's perennial burden of fiscal deficit and current account deficit.

B

To support the infrastructure projects of Central and State Governments.

C

To act as independent regulator in case of applications for loans of Rs. 50 crore or more.

D

To aim at faster resolution of stressed assets of Rs. 50 crore or more which are-under consortium lending.

Solution

- The inter-creditor agreement is aimed at the resolution of loan accounts with a size of ₹50 crores and above that are under the control of a group of lenders.
- It has been signed by 22 public sector banks, 19 private sector banks and 32 foreign banks and 12 major financial intermediaries like LIC, HUDCO etc.
- It is part of the “Sashakt” plan approved by the government to address the problem of resolving bad loans.
- The Intercreditor Agreement, a recommendation of the Sunil Mehta committee, aims to deal with bad loans as an attempt to speed up the

resolution of stressed assets.

3. The Chairmen of public sector banks are selected by the :

A Banks Board Bureau

B Reserve Bank of India

C Union Ministry of Finance

D Management of concerned bank

Solution

- Bank Board Bureau is responsible for the selection and appointment of the Board of Directors in Public Sector Banks and Financial Institutions.
- The Banks Board Bureau (BBB) has its genesis in the recommendations of ‘The Committee to Review Governance of Boards of Banks in India, May 2014 (Chairman - P. J. Nayak)’.
- It is an autonomous recommendatory body.
- The Ministry of Finance takes the final decision on the appointments in consultation with the Prime Minister’s Office.
- Apart from recommending personnel for the PSBs, the Bureau has also been assigned with the task of recommending personnel for appointment as directors in government-owned insurance companies.

- It engages with the board of directors of all the public sector banks to formulate appropriate strategies for their growth and development.
- It is tasked with improving corporate governance at public sector banks, building capacities, etc.

4. Consider the following statements:

1. Petroleum and Natural Gas Regulatory Board (PNGRB) is the first regulatory body set up by the Government of India.
2. One of the tasks of PNGRB is to, ensure competitive markets for gas.
3. Appeals against the decisions of PNGRB go before the Appellate Tribunals for Electricity.

Which of the statements given above are correct?

A 1 and 2 only

B 2 and 3 only

C 1 and 3 only

D 1, 2 and 3

Solution

- The Petroleum and Natural Gas Regulatory Board (PNGRB) was constituted under the Petroleum and Natural Gas Regulatory Board Act, 2006.
 - The independent regulator TRAI is the first independent regulator in India. **Hence Statement 1 is Not Correct.**
- The Act provides for the establishment of Petroleum and Natural Gas Regulatory Board to protect the interests of consumers and

entities engaged in specified activities relating to petroleum, petroleum products and natural gas and to promote competitive markets and for matters connected therewith or incidental thereto.

- One of the tasks of PNGRB is to ensure competitive markets for gas. **Hence Statement 2 is Correct.**
- The board has also been mandated to regulate the refining, processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products and natural gas excluding production of crude oil and natural gas so as and to ensure an uninterrupted and adequate supply of petroleum, petroleum products and natural gas in all parts of the country.
- The PNGRB will have the same powers as a civil court to settle disputes.
- The Appellate Tribunal established under section 110 of the Electricity Act, 2003 (36 of 2003) is the Appellate Tribunal for the purposes of Petroleum and Natural Gas Regulatory Board Act, 2006. **Hence Statement 3 is Correct.**

5. **With reference to communication technologies, what is/are the difference / differences between LTE (Long-Term Evolution) and VoLTE (Voice over Long-Term Evolution)?**

- 1. LTE 'is commonly marketed as 3G and VoLTE is commonly marketed as advanced 3G.**
- 2. LTE is data-only technology and VoLTE is voice-only technology.**

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

- LTE or Long Term Evolution is a series of 4G network standards that were agreed in 2008. **Hence Statement 1 is Not Correct.**
- LTE improved on the radio technology of 3G's WCDMA and introduced OFDM or Orthogonal Frequency-Division Multiplexing.
- ITU (The International Telecommunication Union) recognises the lack of clarity in the term 4G and has determined LTE - Advanced and WirelessMAN-Advanced or WiMax 2 as "True" 4G.

- VoLTE is a technology update to the LTE protocol used by mobile phone networks.
- Under LTE, the infrastructure of telecom players only allows transmission of data while voice calls are routed to their older 2G or 3G networks.
- VoLTE is both data and voice technology. **Hence Statement 2 is also Not Correct.**
- Basically VoLTE systems convert voice into the data stream, which is then transmitted using the data connection.

6. Which of the following statements is / are correct regarding the Maternity Benefit (Amendment) Act, 2017?

1. Pregnant women are entitled for three months pre-delivery and three months post-delivery paid leave.
2. Enterprises with creches must allow the mother minimum six creche visits daily.
3. Women with two children get reduced entitlements.

Select the correct answer using the code given below.

A 1 and 2 only

B 2 only

C 3 only

D 1, 2 and 3

Solution

- The Maternity Benefit (Amendment) Act 2017 provides for 26 weeks paid maternity leave for women employees. **(Hence statement 1 is wrong)**
- Any establishment with more than 50 employees shall have the facility of crèche for working mothers and the enterprises shall allow **four visits** a day for the mother to look after and feed the child in the crèche.

- For women who are expecting a child after already having 2 children, the duration of paid maternity leave shall be 12 weeks.
(Hence Statement 3 is correct).

7. Which one of the following is not a sub-index of the World Bank's 'Ease of Doing Business Index'?

A Maintenance of law and order

B Paying taxes

C Registering property

D Dealing with construction permits

Solution

- The Correct Answer is Option A i.e Maintenance of law and order.
- The World Bank's 'Ease of Doing Business Index' covers 10 sub-indicators namely:
 - Starting a Business,
 - Dealing with Construction Permits,
 - Getting Electricity,
 - Registering Property,
 - Getting Credit,
 - Protecting Minority Investors,
 - Paying Taxes,
 - Trading Across Borders,
 - Enforcing Contracts and
 - Resolving Insolvency.

- Therefore maintenance of law and order is not an indicator of World Banks 'Ease of Doing Business Index'.

8. In India, 'extended producer responsibility' was introduced as an important feature in which of the following?

A The Bio-medical Waste (Management and Handling) Rules, 1998

B The Recycled plastic (Manufacturing and Usage) Rules, 1999

C The e-Waste (Management and Handling) Rules, 2011

D The Food Safety and Standard Regulations, 2011

Solution

- The e-Waste (Management and Handling) Rules, 2011 recognizes producers' liability for recycling and reducing e-waste in the country.
- The e-waste (Management and Handling) Rules, 2011 introduced 'extended producer responsibility'.
- Extended Producer Responsibility (EPR) is the responsibility of any producer of electrical and electronic equipment (EEE) for collection and channelization of e-waste from the end of life product to an authorized dismantler/recycler.
- The Central Pollution Control Board (CPCB) has been given the Extended Producer Responsibility (EPR) authorisation under the new e-waste rules.

9. **The economic cost of food grains to the Food Corporation of India is Minimum Support Price and bonus (if any) paid to the farmers plus :**

A Transportation cost only

B Interest cost only

C Procurement incidentals and distribution cost

D Procurement incidentals and charges for godowns

Solution

- The economic cost of food grains procured by the Food Corporation of India (FCI) is a total of Minimum Support Price and bonus (if any) paid to the farmers plus the procurement incidentals and distribution cost. FCI's economic cost has three main components - procurement cost, procurement price, and distribution cost.
- The procurement incidentals are the initial costs incurred during the procurement of foodgrains.
- The distribution costs include freight, handling charges, storage charges, losses during transit and establishment cost.

10. In the context of any country, which one of the following would be considered as part of its social capital?

A The proportion of literates in the population.

B The stock of its buildings, other infrastructure and machines.

C The size of population in the working age group.

D The level of mutual trust and harmony in the society.

Solution

- The Correct Answer is Option D i.e The level of mutual trust and harmony in the society.
- The stock of its buildings, other infrastructure, and machines implies a physical capital.
- Social capital is the values, beliefs, and attitudes that govern the nature of social interactions.
- Social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them i.e the level of mutual trust and harmony in the society.

11. **The Service Area Approach was implemented under the purview of :**

A Integrated Rural Programme

B **Lead Bank Scheme**

C Mahatma Gandhi National Rural Employment Guarantee Scheme

D National Skill Development Mission

Solution

- Service area approach (SAA) is a developed version of the 'area approach' structure of the Lead Bank Scheme.
- Under SAA plan each commercial bank / RRB branch in a rural and semi-urban area is designated to serve 15 to 25 villages for the planned and orderly development of the areas.
- Under the Lead bank Scheme, the service area approach was introduced in 1989 for the planned and orderly development of rural and semi-urban areas.

12. **With reference to the management of minor minerals in India, consider the following statements:**

- 1. Sand is a ‘minor mineral’ according to the prevailing law in the country.**
- 2. State Governments have the power to grant mining leases of minor minerals, but the powers regarding the formation of rules related to the grant of minor minerals lie with the Central Government.**
- 3. State Governments have the power to frame rules to prevent illegal mining of minor minerals.**

Which of the statements given above is / are correct?

A 1 and 3 only

B 2 and 3 only

C 3 only

D 1, 2 and 3

Solution

- Sand is a minor mineral, as defined under section 3 (e) of the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act). **Hence Statement 1 is Correct.**

- Section 15 of the MMDR Act empowers state governments to make rules for regulating the grant of mineral concessions in respect of minor minerals and for purposes connected therewith.
- The regulation of grant of mineral concessions for minor minerals is, therefore, within the legislative and administrative domain of the state governments.
- Under the power granted to them by section 15 of the MMDR Act, State Governments have framed their own minor minerals concession rules. **Hence Statement 2 is Not Correct.**
- Section 23C of the MMDR Act, 1957 empowers state governments to frame rules to prevent illegal mining, transportation and storage of minerals and for purposes connected therewith. Control of illegal mining is, therefore, under the legislative and administrative jurisdiction of state governments. **Hence Statement 3 is correct.**

13. Consider the following statements:

1. Most of India's external debt is owed by governmental entities.
2. All of India's external debt is denominated in US dollars.

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

- Commercial borrowings continued to be the largest component of external debt with a share of 37.4%.
- Followed by NRI deposits (24.1%) and short term trade credit (19.9%). **Hence Statement 1 is Not Correct.**
- US dollar-denominated debt continued to be the largest component of India's external debt with a share of 45.9% at end December 2018, followed by the Indian rupee (24.8%), SDR (5.1%), yen (4.9%) and euro (3.1%). **Hence Statement 2 is Not Correct.**

14. Which of the following is not included in the assets of a commercial bank in India?

A Advances

B Deposits

C Investments

D Money at call and short notice

Solution

- The key business of the banks is to accept different types of deposits from the public and then lend these funds to the borrowers. This is called Financial intermediation.
- In terms of the banks, the deposits represent the “liabilities” of the banks while loans advanced and investments made by banks represent their “assets”.
- The deposit itself is a liability owed by the bank to the depositor.
- Bank deposits refer to this liability rather than to the actual funds that have been deposited.

15. In the context of India, which of the following factors is/are contributor/ contributors to reducing the risk of a currency crisis?

1. The foreign currency earnings of India's IT sector.
2. Increasing the government expenditure.
3. Remittances from Indians abroad.

Select the correct answer using the code given below.

A 1 only

B 1 and 3 only

C 2 only

D 1, 2 and 3

Solution

- A currency crisis involves the sudden and steep decline in the value of a nation's currency, which causes negative ripple effects throughout the economy.
- Central banks and governments can intervene to help stabilize a currency by selling off reserves of foreign currency or gold, or by intervening in the forex markets.
- This decline in value negatively affects an economy by creating instabilities in exchange rates, meaning that one unit of a certain

currency no longer buys as much as it used to in another currency.

- Foreign currency earnings and Remittances contribute to the strengthening of the rupee. **Hence Statements 1 and 3 are Correct.**
- Increasing government Expenditure will have no effect on the value of the currency. **Hence Statement 2 is Not Correct.**

16. Which one of the following suggested that the Governor should be an eminent person from outside the State and should be a detached figure without intense political links or should not have taken part in politics in the recent past?

A First Administrative Reforms Commission (1966)

B Rajamannar Committee (1969)

C Sarkaria Commission (1983)

D National Commission to Review the Working of the Constitution (2000)

Solution

- Sarkaria commission gave its recommendations for the selection of Governors.
 - In June 1983, the Union Government appointed a commission under the chairmanship of Justice R.S. Sarkaria to review the question of centre-state relations.
 - The commission submitted its report to the then prime minister Rajiv Gandhi on 27 October 1987.
- A Centre-State Relations Inquiry Committee was set up by the then DMK Government of Tamil Nadu on 2nd September 1969 under the Chairmanship of Dr P.V. Rajamanar to consider the entire question

regarding the relationship that should subsist between the Centre and the States in a federal set up.

- The Central Government appointed six members Administrative Reforms Commission in 1966 under the chairmanship of Morarji Desai to consider Centre-State relations.
- The National Commission to Review the Working of the Constitution was set up by a resolution of the Government of India in 2000.
 - The 11-member Commission was headed by M.N. Venkatachaliah (former Chief Justice of India).
 - It submitted its report in 2002.

17. Which of the following is issued by registered foreign portfolio investors to overseas investors who want to be part of the Indian stock market without registering themselves directly?

A Certificate of Deposit

B Commercial Paper

C Promissory Note

D Participatory Note

Solution

- P-Notes or Participatory Notes are Overseas Derivative Instruments that have Indian stocks as their underlying assets.
- They allow foreign investors to buy stocks listed on Indian exchanges without being registered.
- Certificate of Deposit (CDs) is short-term instruments issued by Commercial Banks and Special Financial Institutions (SFIs), which are freely transferable from one party to another.
- The maturity period of CDs ranges from 91 days to one year.
- These can be issued to individuals, co-operatives and companies.
- Commercial paper, or CP, is a short-term debt instrument issued by companies to raise funds generally for a time period up to one year.

It is an unsecured money market instrument issued in the form of a promissory note and was introduced in India in 1990.

- A promissory note is a financial instrument that contains a written promise by one party to pay another party a definite sum of money.

18. Consider the following statements

1. As per law, the Compensatory Afforestation Fund Management and Planning Authority exists at both National and State levels.
2. People's participation is mandatory in the compensatory afforestation programmes carried out under the Compensatory Afforestation Fund Act, 2016.

Which of the statements given above is / are correct?

A 1 only

B 2 only

C Both 1 and 2

D Neither 1 nor 2

Solution

- The Compensatory Afforestation Fund Act 2016, establishes the National Compensatory Afforestation Fund under the Public Account of India, and a State Compensatory Afforestation Fund under the Public Account of each state. **Hence Statement 1 is Correct.**
- These funds are to be managed by the National and State Compensatory Afforestation Fund Management and Planning Authorities, also set up under the Act.

- However, there is no mention in the Act of mandatory people's participation in carrying out programmes under the Act. **Hence Statement 2 is Not Correct.**

19. In India, which of the following review the independent regulators in sectors like telecommunications, insurance, electricity, etc.?

1. Ad Hoc Committees set up by the Parliament
2. Parliamentary Department Related Standing Committees
3. Finance Commission
4. Financial Sector Legislative Reforms Commission
5. NITI Aayog

Select the correct answer using the code given below.

A 1 and 2 only

B 1, 3 and 4 only

C 3, 4 and 5 only

D 2 and 5 only

Solution

- In India, there are 24 Department Related Standing Committees that comprise members from both Houses of Parliament.
- These committees are ministry specific and may review the working of regulators within their respective departments. For example, in August 2012, the Standing Committee on Energy presented a report on the functioning of the Central Electricity Regulatory Commission’.

- In 2011, the Standing Committee on Information Technology had listed the functioning of TRAI for examination.
- Parliament may also establish ad-hoc committees which may examine the working of regulators. For instance, the terms of reference of the Joint Parliamentary Committee (JPC) on the allocation of the 2G spectrum include the review of the policy on spectrum pricing and grant of telecom licences.
- Another example of parliamentary oversight through ad-hoc committees is the scrutiny of the working of SEBI and RBI by the JPC on the stock market scam.
- Finance Commission and NITI Aayog are of advisory nature, they do not review the functioning of any regulator.
- The Financial Sector Legislative Reforms Commission was set up once to review financial legislation and not regulators in the country.

20. **With reference to India's Five-Year Plans, which of the following statements is/are correct?**

1. **From the Second Five-Year Plan, there was a determined thrust towards substitution of basic and capital good industries.**
2. **The Fourth Five-Year Plan adopted the objective of correcting the earlier trend of increased concentration of wealth and economic power.**
3. **In the Fifth Five-Year Plan, for the first time, the financial sector was included as an integral part of the Plan.**

Select the correct answer using the code given below.

A 1 and 2 only

B 2 only

C 3 only

D 1, 2 and 3

Solution

- The stated objective of the Second five-year plan was rapid industrialisation with particular emphasis on the development of basic and heavy industries - aimed at establishing the Socialistic Pattern of Society. **Hence Statement 1 is Correct.**

- The fourth five-year plan emphasised the reduction of the concentration of incomes, wealth and economic power to achieve social equality and justice. **Hence Statement 2 is Correct.**
- The fifth five-year plan aims at the removal of poverty and the achievement of self-reliance. Hence Statement 3 is Not Correct.
Fifth Five Year Plan: Its duration was 1974 to 1978.
- This plan focused on Garibi Hatao, employment, justice, agricultural production and defence.
- The Electricity Supply Act was amended in 1975, the Twenty-point programme was launched in 1975, the Minimum Needs Programme (MNP) and the Indian National Highway System was introduced.
Overall this plan was successful which achieved a growth of 4.8% against the target of 4.4%. This plan was terminated in 1978 by the newly elected Morarji Desai government.

21. **With reference to the Constitution of India, consider the following statements:**

- 1. No High Court shall have the jurisdiction to declare any central law to be constitutionally invalid.**
- 2. An amendment to the Constitution of India cannot be called into question by the Supreme Court of India.**

Which of the statements given above is / are correct?

A 1 only

B 2 only

C Both 1 and 2

D Neither 1 nor 2

Solution

- Both the SC and HCs have the jurisdiction to question the validity of a constitutional amendment or a central law.
- Though the 42nd Amendment Act of 1976 curtailed the judicial review power of high courts and debarred the high courts from considering the constitutional validity of any central law.
- However, the 43rd Amendment Act of 1978 restored the original position of the high courts and now the High Court shall have the jurisdiction to declare any central law to be constitutionally invalid.

- High Courts have the jurisdiction to declare any central law to be constitutionally invalid.
- As the Supreme Court is the guardian of the Constitution and so any constitutional amendment that is against the basic structure of the constitution which was derived in Keshava Nanda Bharti case, 1973 can be nullified by the Supreme Court.

22. Consider the following statements :

1. Purchasing Power Parity (PPP) exchange rates are calculated by comparing the prices of the same basket of goods and services in different countries.
2. In terms of PPP dollars, India is the sixth largest economy in the world.

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

- PPP is an economic theory that compares currencies of different countries through a similar "basket of goods and services".
- The PPP between two countries measures the amount of one country's currency required to purchase a basket of goods and services in the country that as compared to the amount of other country's currency in order to purchase a similar basket of goods and services in the other country. **Hence statement 1 is correct.**

- In terms of PPP dollars, China is the world's largest economy in 2018, followed by the United States and India at second and third positions respectively. **Hence statement 2 is not correct.**

23. **With reference to the cultivation of Kharif crops in India in the last five years, consider the following statements:**

1. **Area under rice cultivation is the highest.**
2. **Area under the cultivation of jowar is more than that of oilseeds.**
3. **Area of cotton cultivation is more than that of sugarcane.**
4. **Area under sugarcane cultivation has steadily decreased.**

Which of the statements given above are correct?

A 1 and 3 only

B 2, 3 and 4 only

C 2 and 4 only

D 1, 2, 3 and 4

Solution

- The area under rice cultivation in India, in 2013-14 was 44.13 million hectares while in 2015-16, it became 43.39 million hectares and is highest amongst all. **Hence statement 1 is correct.**
- The annual area under Jowar ranges between 17 and 18 million hectares while the oilseed area is 28 million hectares (2013-14), 26.1 million hectares (2015-16) i.e area under the cultivation of Jowar is less than that of oilseeds. **Hence statement 2 is not correct.**

- The area under sugarcane cultivation has not steadily decreased. The area under sugarcane cultivation 4.99 million hectares (2013-14), 5.066 million hectares (2014-15), 4.953 million hectares (2015-16). **Hence statement 4 is not correct.**
- The area under cotton cultivation is 11.96 million hectares (2013-14), 12.81 million hectares (2014-15), and 11.87 million hectares (2015-16). Hence the area under cotton cultivation is more than sugar cultivation. **Hence statement 3 is correct.**

24. Among the agricultural commodities imported by India, which one of the following accounts for the highest imports in terms of value in the last five years?

A Spices

B Fresh fruits

C Pulses

D Vegetable oils

Solution

- Vegetable oils account for the highest import in terms of value in the last five years.
- India relies on imports for 70 percent of its edible oil consumption.
- The Highest import of vegetable oils in terms of value is in December 2018 in the last five years.
- Pulses account for second-most highest while fresh fruits account for third-highest and spices account for least imports in terms of value in the last five years among the following agricultural commodities imported by India.

25. In the context of polity, which one of the following would you accept as the most appropriate definition of liberty?

A Protection against the tyranny of political rulers.

B Absence of restraint.

C Opportunity to do whatever one likes.

D Opportunity to develop oneself fully.

Solution

Liberty can be seen from two perspectives – negative and positive.

- Negative liberty is the absence of obstacles, barriers or constraints. Positive liberty is the possibility of acting — or the fact of acting — in such a way as to take control of one's life and realize one's fundamental purposes.
- One may surmise that the purpose of ensuring that one has no obstacles is to realize one's full potential.
- Therefore, option B only covers part of the definition of liberty, whereas option D covers it fully.
- Option A is also a partial definition and has a connotation more towards fundamental rights rather than liberty.

- One can be protected from tyranny by rule of law, but that does not by itself guarantee liberty.

26. Which one of the following is not the most likely measure the Government/RBI takes to stop the slide of Indian rupee?

- A** Curbing imports of non-essential goods-and promoting exports.
- B** Encouraging Indian borrowers to issue rupee denominated Masala Bonds.
- C** Easing conditions relating to external commercial borrowing.
- D** Following an expansionary monetary policy.

Solution

- Curbing imports of non-essential goods and promoting exports would help control imports and thus the depreciation of the rupee by increasing the growth with promoting exports. **Hence statement 1 is correct.**
- Encouraging Indian borrowers to issue rupee-denominated Masala Bonds is a measure of the RBI/government to stop the slide of Indian rupee as it does not put pressure on our currency through borrowing dollars as the bond issue would be rupee denominated. **Hence statement 2 is correct.**
- Easing conditions relating to external commercial borrowing will lead to higher borrowing abroad and would temporarily reduce the deficit of forex in India preventing the slide of rupee. **Hence statement 3 is correct.**

- Following an expansionary monetary policy may lead to lower interest rates thereby increasing the inflation with higher imports through higher spending of the government and therefore the slide of rupee takes place. Hence Option 4 is not a measure taken by the government/RBI to stop the slide of Indian Rupee. **Hence statement 4 is not correct.**

27. Consider the following statements: The Reserve Bank of India's recent directives relating to 'Storage of Payment System Data', popularly known as data diktat, command the payment system providers that :

1. They shall ensure that entire data relating to payment systems operated by them are stored in a system only in India.
2. They shall ensure that the systems are owned and operated by public sector enterprises.
3. They shall submit the consolidated system audit report to the Comptroller and Auditor General of India by the end of the calendar year.

Which of the statements given above is/are correct?

A 1 only

B 1 and 2 only

C 3 only

D 1, 2 and 3

Solution

- The RBI has given the following directives relating to Storage of Payment System Data - All system providers shall ensure that the

entire data relating to payment systems operated by them are stored in a system only in India (**Hence statement 1 is correct**).

- This data should include the full end-to-end transaction details/information collected/carried/processed as part of the message/payment instruction. For the foreign leg of the transaction, if any, the data can also be stored in a foreign country, if required. System providers shall ensure compliance of above rule within a period of six months and report compliance of the same to the Reserve Bank latest by October 15, 2018.
- System providers shall submit the System Audit Report (SAR) on completion of the requirement.
- The audit should be conducted by CERT-IN empanelled auditors certifying completion of the activity.
- The SAR duly approved by the Board of the system providers should be submitted to the Reserve Bank not later than December 31, 2018. CAG is not involved here.

28. Which of the following adopted a law on data protection and privacy for its citizens known as ‘General Data Protection Regulation’ in April 2016 and started implementation of it from 25th May, 2018?

A Australia

B Canada

C The European Union

D The United States of America

Solution

- The General Data Protection Regulation (EU) (“GDPR”) is a regulation in EU law on data protection and privacy for its citizens of the European Union (EU) and the European Economic Area (EEA).
- The EU GDPR replaces the Data Protection Directive and started the implementation of it from 25th May 2018.
- It also addresses the export of personal data outside the EU and EEA areas.

29. **Recently, India signed a deal known as ‘Action Plan for Prioritization and Implementation of Cooperation Areas in the Nuclear Field’ with which of the following countries?**

A Japan

B Russia

C The United Kingdom

D The United States of America

Solution

- India signed a deal known as the Action Plan for Prioritization and Implementation of Cooperation Areas in the Nuclear Field with Russia.
- The two countries intend to develop a project of six nuclear power units of Russian design at a new site in India, further enhance cooperation in the third countries and bring the new perspective of nuclear technologies together with the joint construction of nuclear power plants.
- During the visit of H. E. Vladimir Putin, President of the Russian Federation, the action plan was signed on 5th October 2018 in New Delhi.

30. **The money multiplier in an economy increases with which one of the following?**

A Increase in the cash reserve ratio.

B Increase in the banking habit of the population.

C Increase in the statutory liquidity ratio.

D Increase in the population of the country.

Solution

- The money multiplier is the amount of money created by commercial banks for a given fixed amount of base money and reserve ratio.
- An increase in a cash reserve ratio prevents the banks from lending more money and reduces the money multiplier.
- An increase in the banking habit of the population will increase the lending, thereby will lead to more deposits in the banking system, hence increasing the money multiplier.
- Even if there is an increase in the population of the country, the money multiplier in an economy does not necessarily increase.

31. Consider the following statements about Particularly Vulnerable Tribal Groups (PVTGs) in India:

1. PVTGs reside in 18 States and one Union Territory.
2. A stagnant or declining population is one of the criteria for determining PVTG status.
3. There are 95 PVTGs officially notified in the country so far.
4. Irular and Konda Reddi tribes are included in the list of PVTGs.

Which of the statements given above are correct?

A 1, 2 and 3

B 2, 3 and 4

C 1, 2 and 4

D 1, 3 and 4

Solution

- Particularly Vulnerable Tribal Groups (PVTGs) are centrally recognized special category from among the Scheduled Tribe.
- It was constituted during the 4th five year plan on the basis of the report of the Dhebar commission (1960-61).
- Such groups were identified by one or more of the following features: Pre-agricultural level of technology, Low level of literacy,

Economic backwardness, A declining or stagnant population. **Hence, statement 2 is correct.**

- There are total 75 tribal groups have been categorized categorized by Ministry of Home Affairs as Particularly Vulnerable Tribal Groups (PVTG)s. **Hence, statement 3 is not correct.**
- PVTGs reside in 18 States and UT of A&N Islands. Hence, **statement 1 is correct.**
- Konda reddy of Khammam district of Telangana and Irular of Tamil Nadu are in the list of PVTGs. **Hence, statement 4 is correct.**
- Besides a number of schemes of Government of India and the State Governments where PVTG population are also benefitted along with other population, Ministry of Tribal Affairs administers a scheme namely ‘Development of Particularly Vulnerable Tribal Groups (PVTG)’ specifically for the PVTG population.
- Under this scheme, financial assistance is provided to the State/UT Governments based on their proposals for development of tribal people under various sectors.
- The projects taken up under this scheme are demand driven

32. **With reference to the Constitution of India, prohibitions or limitations or provisions contained in ordinary laws cannot act as prohibitions or limitations on the constitutional powers under Article 142. It could mean which one of the following?**

A

The decisions taken by the Election Commission of India while discharging its duties cannot be challenged in any court of law.

B

The Supreme Court of India is not constrained in the exercise of its powers by laws made by the Parliament.

C

In the event of grave financial crisis in the country, the President of India can declare Financial Emergency without the counsel from the Cabinet.

D

State Legislatures cannot make laws on certain matters without the concurrence of Union Legislature.

Solution

- As per Article 142, “The Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice in any cause or matter pending before it, and any decree so passed or orders so made shall be enforceable throughout the territory of India in such manner as may be prescribed by or under any law made by Parliament and, until

provision in that behalf is so made, in such manner as the President may by order prescribe”.

- Any decree so passed or order so made shall be enforceable throughout the territory of India.
- It may be in such manner as may be prescribed by or under any law made by Parliament and, until provision in that behalf is so made, in such manner as the President may by order prescribe.
- The Supreme Court of India is not constrained in the exercise of its powers by laws made by the Parliament.

33. **With reference to the Legislative Assembly of a State in India, consider the following statements:**

1. **The Governor makes a customary address to Members of the House at the commencement of the first session of the year.**
2. **When a State Legislature does' not have a rule on a particular matter, it follows the Lok Sabha rule on that matter.**

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

- Article 176 (1): According to the legislative powers of the Governor he can address the state legislature at the commencement of the first session after each general election and the first session of each year.
Hence, statement 1 is correct.
- Article 208 (1): A House of the Legislature of a State may make rules for regulating subject to the provisions of this Constitution, its procedure, and the conduct of its business.

- Article 208 (2): Until rules are made under clause (1), the rules of procedure and standing orders in force immediately before the commencement of this Constitution with respect to the Legislature for the corresponding Province shall have effect in relation to the Legislature of the State subject to such modifications and adaptations as may be made therein by the Speaker of the Legislative Assembly, or the Chairman of the Legislative Council, as the case may be.
- Article 208 (3): In a State having a Legislative Council the Governor, after consultation with the Speaker of the Legislative Assembly and the Chairman of the Legislative Council, may make rules as to the procedure with respect to communications between the two Houses.
- Whenever the state legislature doesn't have a rule on some particular matter, the legislature follows the lok sabha rule. **Hence, statement 2 is correct.**

34. Consider the following statements:

1. The United Nations Convention against Corruption (UNCAC) has a 'Protocol against the Smuggling of Migrants by Land, Sea and Air'.
2. The UNCAC is the ever-first legally binding global anti-corruption instrument.
3. A highlight of the United Nations Convention against Transnational Organized Crime (UNTOC) is the inclusion of a specific chapter aimed at returning assets to their rightful owners from whom they had been taken illicitly.
4. The United Nations Office on Drugs and Crime (UNODC) is mandated by its member States to assist in the implementation of both UNCAC and UNTOC.

Which of the statements given above are correct?

A 1 and 3 only

B 2, 3 and 4 only

C 2 and 4 only

D 1, 2, 3 and 4

Solution

- The protocol against the smuggling of Migrants by land, sea and air comes under the the United Nations Convention against Transnational Organized Crime (UNTOC) and not UNCAC, **Hence Statement 1 is Not Correct.**
- The United Nations Convention Against Corruption (UNCAC) is the only legally binding universal anti-corruption instrument. The Convention covers many different forms of corruption, such as bribery, trading in influence, abuse of functions, and various acts of corruption in the private sector. **Hence Statement 2 is Correct.**
- United Nations Convention Against Corruption (UNCAC) includes "Returning Assets to their rightful owners from whom they they have been taken illicitly". **Hence Statement 3 is Not Correct.**
- The United Nations Office on Drugs and Crime (UNODC) is mandated by its Member States to assist in the implementation of both Conventions, such as UNCAC and UNTOC, along with the UN Drug Conventions of 1961, 1971 and 1988 underpin all the operational work of UNODC. **Hence Statement 4 is Correct.**

35. Consider the following statements:

1. As per recent amendment to the Indian Forest Act, 1927, forest dwellers have the right to fell the bamboos grown on forest areas.
2. As per the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, bamboo is a minor forest produce.
3. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 allows ownership of minor forest produce to forest dwellers.

Which of the statements given above is / are correct?

A 1 and 2 only

B 2 and 3 only

C 3 only

D 1, 2 and 3

Solution

- The Indian Forest (Amendment) Bill 2018 permits felling and transit of bamboo grown in non-forest areas. However, bamboo grown on forest lands would continue to be classified as a tree and would be

guided by the existing legal restrictions. **Hence, Statement 1 is Not Correct.**

- The Forest Rights Act (FRA) of 2006 recognises bamboo as an Minor Forest Produce It vests the “right of ownership, access to collect, use and dispose of minor forest produce” with Scheduled Tribes and traditional forest dwellers. **Hence Statement 2 is Correct.**
- In 2006, the Forest Rights Act (FRA) for the first time defined minor forest produce as including bamboo and tendu and many other things.
- It also gave tribals and other traditional forest dwellers the “right of ownership, access to collect, use and dispose of minor forest produce, which has been traditionally collected within or outside village boundaries.” **Hence Statement 3 is Correct.**

36. **Which Article of the Constitution of India safeguards one's right to marry the person of one's choice?**

A Article 19

B Article 21

C Article 25

D Article 29

Solution

- In the Lata Singh vs. state of Uttar Pradesh case, the Supreme Court viewed the right to marry as a component of right to life under Article 21 of Indian Constitution.
- Article 21 states that "No person shall be deprived of his life and personal liberty except according to procedure established by law".
- Article 19 embodies the "basic freedoms" such as protection of certain rights regarding freedom of speech, etc Article 25 says "all persons are equally entitled to freedom of conscience and the right to freely profess, practice, and propagate religion subject to public order, morality and health.
- Article 29 of Indian Constitution grants protection to both religious minorities as well as linguistic minorities.

37. Consider the following statements:

1. According to the Indian Patents Act, a biological process to create a seed can be patented in India.
2. In India, there is no Intellectual Property Appellate Board.
3. Plant varieties are not eligible to be patented in India.

Which of the statements given above is/are correct?

A 1 and 3 only

B 2 and 3 only

C 3 only

D 1, 2 and 3

Solution

- Article 3(J) of Indian Patent Act, excludes from patentability “plants and animals in whole or in any part thereof other than microorganisms, including seeds, varieties, and species, and essentially biological processes for production or propagation of plants and animals”. **Hence Statement 1 is Not Correct.**
- The Intellectual Property Appellate Board (IPAB) was constituted on 2003 by the Government of India to hear and resolve the appeals against the decisions of the registrar under the Indian Trademarks

Act, 1999 and the Geographical Indications of Goods (Registration and Protection) Act, 1999. **Hence statement 2 is Not Correct.**

- Plant variety protection provides legal protection of a plant variety to a breeder in the form of Plant Breeder's Rights (PBRs).
- In India, the Plant Variety Protection And Farmers Rights (PPVFR) Act, 2001 is a sui generis system that aims to provide for the establishment of an effective system for the protection of plant varieties and the rights of plant breeders and farmers. There are no laws in India that allows for patenting plants. **Hence Statement 3 is Correct.**

38. Consider the following statements:

The Environment Protection Act, 1986 empowers the Government of India to :

- 1. State the requirement of public participation in the process of environmental protection, and the procedure and manner in which it is sought.**
- 2. Lay down the standards for emission or discharge of environmental pollutants from various sources.**

Which of the statements given above is/ are correct?

A 1 only

B 2 only

C Both 1 and 2

D Neither 1 nor 2

Solution

- The Environment (Protection) Act, 1986 authorizes the central government to protect and improve environmental quality, control and reduce pollution from all sources, and prohibit or restrict the setting and /or operation of any industrial facility on environmental grounds.

- The Environment (Protection) Act was enacted in 1986 with the objective of providing for the protection and improvement of the environment.
- It empowers the Central Government to establish authorities charged with the mandate of preventing environmental pollution in all its forms and to tackle specific environmental problems that are peculiar to different parts of the country. EPA, 1986 doesn't contain any provision related to public participation.
- Section 6 of the Act authorises that the Central Government regulates pollution control norms.

39. **As per the Solid Waste Management Rules, 2016 in India, which one of the following statements is correct?**

A Waste generator has to segregate waste into five categories.

B

The Rules are applicable to notified urban local bodies, notified towns and all industrial townships only.

C

The Rules provide for exact and elaborate criteria for the identification of sites for landfills and waste processing facilities.

D

It is mandatory on the part of waste generator that the waste generated in one district cannot be moved to another district.

Solution

- The correct answer is The Rules provide for exact and elaborate criteria for the identification of sites for landfills and waste processing facilities.
- Under the Solid Waste Management Rules 2016, waste processing facilities will have to be set up by all local bodies having 1 million or more population within two years. In case of census towns below 1 million population, setting up common, or stand-alone sanitary landfills by, or for all local bodies having 0.5 million or more population and for setting up common, or regional sanitary landfills by all local bodies and census towns under 0.5 million population

will have to be completed in three years. **Hence Option B is Not Correct.**

- Rules provide for exact and elaborate criteria for identification of landfill sites and waste processing facilities. **Hence Option C is Correct.**
- Waste generators would now have to now segregate waste into three streams- Biodegradables, Dry (Plastic, Paper, Metal, Wood, etc.) and Domestic Hazardous waste (diapers, napkins, mosquito repellants, cleaning agents etc.) before handing it over to the collector. **Hence Option A is Not Correct.**
- It is not mandatory for the waste generator that the waste generated in one district cannot be moved to another district. **Hence Option D is Not Correct.**

40. Consider the following statements:

As per the Industrial Employment (Standing Orders) Central (Amendment) Rules, 2018

- 1. If rules for fixed-term employment are implemented, it becomes easier for the firms/companies to layoff workers.**
- 2. No notice of termination of employment shall be necessary in the case of temporary workman.**

Which of the statements given above is / are correct?

A 1 only

B 2 only

C Both 1 and 2

D Neither 1 nor 2

Solution

- **Statement 1:** The government has notified fixed term employment for all sectors through an amendment to the Industrial Employment (Standing Orders) Central Rules, 1946.
- As per the Industrial Employment (Standing Orders) Central (Amendment) Rules, 2018, a “fixed term employment workman is a workman who has been engaged on the basis of a written contract of

employment for a fixed period”.

- No workman employed on fixed term employment basis as a result of non-renewal of contract or employment or on its expiry shall be entitled to any notice or pay in lieu thereof, if his services are terminated.
- No notice of termination of employment shall be necessary in the case of temporary workman whether monthly rated, weekly rated or piece rated and probationers or badli workmen Therefore, fixed-term employment for all sectors will make it easier for companies to hire-and-fire workers along with reducing the role of middlemen.
- **Statement 2:** No notice of termination of employment shall be necessary in the case of temporary workman whether monthly rated, weekly rated or piece rated and probationers or badli workmen.

41. In the context of digital technologies for entertainment, consider the following statements:

1. In Augmented Reality (AR) , a simulated environment is created and the physical world is completely shut out.
2. In Virtual Reality (VR), images generated from a computer are projected onto real-life objects or surroundings.
3. AR allows individuals to be present in the world and improves the experience using the camera of smart-phone or PC.
4. VR closes the world, and transposes an individual, providing complete immersion experience.

Which of the statements given above is / are correct?

A 1 and 2 only

B 3 and 4

C 1, 2 and 3

D 4 only

Solution

- **Virtual reality:**

- It is a computer-generated simulation of an alternate world or reality.

- A simulated environment is created in Virtual Reality (VR) and the physical world is completely shut out. **Hence statement 2 is not correct.**
- In Virtual Reality, users are immersed and able to interact with simulated 3D worlds. Virtual reality has also long been used in training, education, and science.
- In VR, users participate in the visual environment. **Hence statement 4 is correct.**
- **Augmented Reality (AR):**
 - In Augmented Reality (AR), images generated from a computer are projected onto real-life objects or surroundings. **Hence statement 1 is not correct.**
 - AR allows individuals to be present in the world and improves the experience using the camera of smart-phone or PC. **Hence statement 3 is correct.**
 - In Augmented Reality, users participate in the physical environment.

42. The word 'Denisovan' is sometimes mentioned in media in reference to :

A Fossils of a kind of dinosaurs.

B An early human species.

C A cave system found in North-East India.

D A geological period in the history of Indian subcontinent.

Solution

- The Denisovans or Denisova hominins are an extinct species or subspecies of archaic humans in the genus Homo.
- Scientists have uncovered the most complete remains yet from the mysterious ancient-hominin group known as the Denisovans.
- The jawbone, discovered high on the Tibetan Plateau and dated to more than 160,000 years ago, is also the first Denisovan specimen found outside the Siberian cave in which the hominin was uncovered a decade ago — confirming suspicions that Denisovans were more widespread than the fossil record currently suggests.

- The research marks the first time an ancient human has been identified solely through the analysis of proteins. With no usable DNA, scientists examined proteins in the specimen's teeth, raising hopes that more fossils could be identified even when DNA is not preserved.

43. **With reference to the recent developments in science, which one of the following statements is not correct?**

A

Functional chromosomes can be created by joining segments of DNA taken from cells of different species.

B

Pieces of artificial functional DNA can be created in laboratories.

C

A piece of DNA taken out from an animal cell can be made to replicate outside a living cell in a laboratory.

D

Cells taken out from plants and animals can be made to undergo cell division in laboratory petri dishes.

Solution

- Artificial chromosomes can be created by joining segments of DNA taken from cells of different species. Functional chromosomes cannot be created using DNA taken from cells of different species. **Hence Option 1 is not correct.**
- Scientists at Cambridge University have created the world's first living organism that has a fully synthetic and radically altered DNA code.
- Pieces of artificial functional DNA can be created in laboratories and this process is known as Artificial Gene Synthesis. **Hence statement 2 is correct.**

- A piece of DNA taken out from an animal cell can be made to replicate outside a living cell in a laboratory and this is called cloning. **Hence statement 3 is correct.**
- Cells taken out from plants and animals can be made to undergo cell division in laboratory Petri dishes and this is a process of plant and animal tissue culture technology. **Hence statement 4 is correct.**

44. Consider the following statements:

A digital signature is-

- 1. An electronic record that identifies the certifying authority issuing it.**
- 2. Used to serve as a proof of identity of an individual to access information or server on Internet.**
- 3. An electronic method of signing an electronic document and ensuring that the original content is unchanged.**

Which of the statements given above is / are correct?

A 1 only

B 1 and 3 only

C 3 only

D 1, 2 and 3

Solution

Digital Signature -

- It is an electronic signature that ensures that an electronic document is authentic.
- A digital signature is not a record rather it provides authentication of the record.

- A digital certificate is an electronic record that identifies the certifying authority issuing it. **Hence statement 1 is correct.**
- Certificates serve as a proof of identity of an individual for a certain purpose. **Hence statement 2 is correct.**
- It is an electronic method of signing an electronic document and ensuring that the original content is unchanged. **Hence statement 3 is correct.**
- Digital signatures are easily transportable and cannot be imitated by someone else.

45. In the context of wearable technology, which of the following tasks is/are accomplished by wearable devices?

1. Location identification of a person.
2. Sleep monitoring of a person.
3. Assisting the hearing impaired person.

Select the correct answer using the code given below.

A 1 only

B 2 and 3 only

C 3 only

D 1, 2 and 3

Solution

- Wearable technology includes smartwatches or electronic devices.
- Wearable technology provides us with the ability to monitor our fitness levels, track our location with GPS, and view text messages more quickly.
- Wearable technology includes devices such as fitness trackers to monitor our fitness levels, smartwatches, heart rate monitors, sleep monitoring of a person and GPS tracking devices to identify the location of a person.

- Wearable technology also assists the hearing-impaired persons.

46. **'RNA interference (RNAi)' technology has gained popularity in the last few years. Why?**

- 1. It is used in developing gene silencing therapies.**
- 2. It can be used in developing therapies for-the treatment of cancer.**
- 3. It can be used to develop hormone replacement therapies.**
- 4. It can be used to produce crop plants that are resistant to viral pathogens.**

Select the correct answer using the code given below.

A 1, 2 and 4

B 2 and 3

C 1 and 3

D 1 and 4 only

Solution

- 'RNA interference (RNAi)' technology is a technique that became popular because of its use of gene silencing therapies linked to disease such as cancer.
- RNAi is a gene-silencing technology that inhibits protein synthesis in target cells using double-stranded RNA.

- RNAi is also used to produce crop plants that are resistant to plant viruses such as RNA and DNA viruses, viroids, insects, and other fungal pathogens. a process using recombinant DNA technology to join, by attachment or insertion, a DNA segment from one source to a DNA segment from another source.
- Gene Silencing - Gene silencing refers to a mechanism by which cells shut down large sections of chromosomal DNA.
- It is generally used to describe the “switching off” of a gene by a mechanism other than genetic modification.

47. **Recently, scientists observed the merger of giant ‘blackholes’ billions of light-years away from the Earth. What is the significance of this observation?**

A ‘Higgs boson particles’ were detected.

B ‘Gravitational waves’ were detected.

C

Possibility of inter-galactic space travel through ‘wormhole’ was confirmed.

D

It enabled the scientists to understand ‘singularity’.

Solution

- Billions of light-years away from the earth, two black holes have collided to create a larger one.
- Gravitational waves are created when two black holes orbit each other and merge.
- It has a mass more than 80 times that of the Sun.
- The resulting energy released in the form gravitational waves as the two holes spiralled in towards each other.

48. Which of the following are the reasons for the occurrence of multi-drug resistance in microbial pathogens in India?

1. Genetic predisposition of some people.
2. Taking incorrect doses of antibiotics to cure diseases.
3. Using antibiotics in livestock farming.
4. Multiple chronic diseases in some people.

Select the correct answer using the code given below.

A 1 and 2

B 2 and 3 only

C 1, 3 and 4 only

D 2, 3 and 4

Solution

- When an organism is resistant to more than one drug, it is said to be multidrug-resistant.
- A genetic predisposition means people who inherit genetic disorders or illness from the parents and so statement 1 is irrelevant to the question asked.
- Reasons for the occurrence of multi-drug resistance in microbial pathogens in India are -

- Taking incorrect doses of antibiotics to cure diseases.
- The use of a high volume of antibiotics in livestock farming contributes to the development of antimicrobial-resistant bacteria.
 - These bacteria can be transmitted from animals to humans via direct contact with animals, or through the food chain and the environment.
- Inadequate sanitary conditions.
- Inappropriate food handling.
- Poor infection control.

49. What is Cas9 protein that is often mentioned in news?

- A** A molecular scissors used in targeted gene editing.
- B** A biosensor used in the accurate detection of pathogens in patients.
- C** A gene that makes plants pest-resistant.
- D** A herbicidal substance synthesized in genetically modified crops.

Solution

- CRISPR technology is a gene-editing technology that can be used for the purpose of altering genetic expression.
- CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) scans the genome for the right location and then uses the Cas9 protein as molecular scissors in targeted DNA.
- The Cas9 protein is an enzyme that cuts the two strands of Double helix DNA at a specific location in the genome.
- Cas9 is a bacterial RNA-guided endonuclease that uses base pairing to recognize and cuts the targeted DNAs guided by the RNA.

50. Which one of the following statements is not correct?

A Hepatitis B virus is transmitted much like HIV.

B Hepatitis B, unlike Hepatitis C, does not have a vaccine.

C Globally, the number of people infected with Hepatitis B and C viruses are several times more than those infected with HIV.

D Some of those infected with Hepatitis B and C viruses do not show the symptoms for many years.

Solution

- Hepatitis is the inflammation of the liver. Hepatitis B is a viral disease that damages the liver.
- It is a liver infection that is caused by the hepatitis B virus (HBV).
- Hepatitis B is a blood-borne and sexually transmitted infection. Hepatitis B virus is very much similar to HIV in transmission.
- There are vaccines to prevent hepatitis B but there is no vaccine for hepatitis C. Engerix-B, Hepsivax-B, and Recombivax HB are examples of Hepatitis B Vaccines.
- Some of those infected with Hepatitis B and C viruses do not show the symptoms for many years.

- Viral hepatitis B and C affect 325 million people worldwide, leading to about 1.4 million deaths a year. 9 times more people are infected with hepatitis than HIV.

51. With reference to Mughal India, what is/are the difference/differences between Jagirdar and Zamindar?

- 1. Jagirdars were holders of land assignments in lieu of judicial and police duties, whereas Zamindars were holders of revenue rights without obligation to perform any duty other than revenue collection.**
- 2. Land assignments to Jagirdars were hereditary and revenue rights of Zamindars were not hereditary.**

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

- Both are incorrect.
- The Jagirdars were the king's officials who enjoyed the land gifted from the King.
- They were the rank (mansab) holder given by the king called mansabdar.

- They were allotted non-inheritable land area equivalent to their fee amount called Jagir.
- These Jagirs are temporary in character and the Jagirdars only have the right to claim and enjoy the revenue collected from the land.
- The holder of land was termed as the Zamindar.
- They had the hereditary right over the land to claim share in the peasant's output other than land revenues.
- They also have the right to detain the peasants.

52. With reference to land reforms in independent India, which one of the following statements is correct?

A

The ceiling laws were aimed at family holdings and not individual holdings.

B

The major aim of land reforms was providing agricultural land to all the landless.

C

It resulted in cultivation of cash crops as a predominant form of cultivation.

D

Land reforms permitted no exemptions to the ceiling limits.

Solution

- The major aim of land reforms was to provide agricultural land to all the landless. **Hence, Option B is correct.**
- Land Ceiling means fixing the maximum size of landholding that an individual/family can own. The ceiling laws aimed at fixing the maximum size of land which could be owned by an individual.
- Land Ceiling laws were applied to family holdings as well as individual holdings. **Hence, Option A is NOT correct.**
- The outcome of Land reforms: (i) abolition of intermediaries, (ii) fixation of ceilings on land holdings, and (iii) redistribution of surplus land among landless or semi-landless peasants.

- Cultivation of cash crops requires much more other inputs rather than the mere availability of holdings. Commercialization of agriculture, and not land reforms, led to an increase in the cultivation of cash crops. **Hence, Option C is also NOT correct.**
- Certain exemptions to the ceiling limits were allowed for plantations of crops like tea and coffee, Bhoodan Yagna Committees, registered cooperatives, and other bodies. Certain exemptions in land reforms were permitted to the ceiling limits. Example -Exemptions for Garden Lands, Forest Land, Barren Land, etc. **Hence, Option D is also not correct.**

53. **The Global Competitiveness Report is published by the :**

A International Monetary Fund

B United Nations Conference on Trade and Development

C World Economic Forum

D World Bank

Solution

- Global Competitiveness Report -
 - It is a report published by the World Economic Forum (WEF).
 - Singapore topped the 2019 index while the US stood at the second spot.
 - India slipped down ten places from 58 in 2018 index to 68 in the 2019 index.
- The World Economic Outlook (WEO) and the Global Financial Stability Report (GFSR) are the reports published by the IMF.
- Global Gender Gap Report, Global Risk Report, and the Travel and Tourism Competitiveness Report are the reports published by WEF.
- The World Investment Report is released by the United Nations Conference on Trade and Development.
- Global Economic Prospects, Ease of Doing Business, World Development Report are released by the World Bank.

54. Consider the following statements about ‘the Charter Act of 1813’:

1. It ended the trade monopoly of the East India Company in India except for trade in tea and trade with China.
2. It asserted the sovereignty of the British Crown over the Indian territories held by the Company.
3. The revenues of India were now controlled by the British Parliament.

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

Pitt's India Act 1784 -

- It established an authority in England to supervise the company's affairs.
- This is known as the Board of Control which has 6 members.
- The revenues of India were controlled by the British parliament through Pitts India Act 1784. **Hence statement 3 is not correct.**

- The Governor-General in the council has more powers over Bombay and Madras Governors in matters related to the War, Revenue and Diplomacy.
- In India, the strength of the executive council was reduced from four to three.

Charter Act of 1813 -

- The monopoly of EIC was abolished in terms of trade with India.
- The company still enjoyed the monopoly in terms of tea and trade with china trade for 20 more years. **Hence statement 1 is correct.**
- This act provided a grant of one lakh rupees per annum for the promotion of education in India.
- This act gave power to local governments to impose and collect taxes.
- This act included a clause asserting the Crown's undoubted sovereignty over all of the Company's territories and required it to open up India to Christian missionaries. **Hence statement 2 is correct.**

55. **With reference to Swadeshi Movement, consider the following statements:**

- 1. It contributed to the revival of the indigenous artisan crafts and industries.**
- 2. The National Council of Education was established as a part of Swadeshi Movement.**

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

- It was launched in 1905 as a protest against the partition of Bengal , had spread across the country.
- Bal Gangadhar Tilak, Bipin Chandra Pal, Lala Lajpat Rai are the key people in the swadeshi movement.
- When Lord Curzon, then Viceroy of India, announced the partition of Bengal in July 1905, Indian National Congress, initiated the Swadeshi movement in Bengal. Swadeshi textile mills, soap,

tobacco and match factories, tanneries, banks, etc were established to emphasize the positive aspect of the swadeshi movement.

- Therefore, it contributed to the revival of the indigenous artisan crafts and industries.
- National Council of Education was established in Bengal in 1906 to promote technical education in India as part of a swadeshi industrialisation movement.

56. Consider the following pairs:

	Movement	Organization Leader
1.	All India Anti-Untouchability League	Mahatma Gandhi
2.	All India Kisan Sabha	Swami Sahajanand Saraswati
3.	Self-Respect Movement	E. V. Ramaswami Naicker

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

A 1 only

B 1 and 2 only

C 2 and 3 only

D 1, 2 and 3

Solution

- S1: Harijan Sevak Sangh is a non-profit organisation founded by Mahatma Gandhi in 1932 to eradicate untouchability in India, working for Harijan or Dalit people and upliftment of scheduled castes of India.

- S2: All India Kisan Sabha (All India Peasants Union, also known as the Akhil Bharatiya Kisan Sabha), was the name of the peasants front of the undivided Communist Party of India, an important peasant movement formed by Sahajanand Saraswati in 1936.
- S3: Self-Respect Movement was founded in 1925 by S. Ramanathan who invited E. V. Ramasamy (also called as Periyar by his devoted followers) to head the movement in Tamil Nadu, India against Brahminism.

57. Which one of the following is not a Harappan site?

A Chanhudaro

B Kot Diji

C Sohgaoura

D Desalpur

Solution

- Sohgaoura -
 - It is not a Harappan site.
 - It is an Ashokan era copper plate inscription written in Prakrit in the Brahmi script.
- Major findings in Kot Diji (Pakistan) of Harappan site are a tar, statues of bull and mother goddess.
- Major findings in Chanhudaro (Pakistan) of Harappan site are the footprint of a dog chasing a cat, Bead makers shop, and Cart with a seated driver.
- Major findings in Desalpur (Gujarat) of Harappan site are pottery ware with lines of bluish-green pigment, Terracotta seals etc.

58. In which of the following relief sculpture inscriptions is 'Ranyo Ashoka' (King Ashoka) mentioned along with the stone portrait of Ashoka?

A Kanganahalli

B Sanchi

C Shahbazgarhi

D Sohgaura

Solution

- Kanganahalli -
 - Kanaganahalli is located near Sannati, Karnataka.
 - In this sculptural depiction, the emperor with his queen and attendants are carved on a slab, with Ranyo Asoka (Raja Asoka) mentioned along with the stone portrait of Ashoka.
- It is the first-ever sculpture of Asoka with his name inscribed.
- Shahbazgarhi -
 - Shahbazgarhi in Pakistan is known for rock edicts of the Mauryan emperor Ashoka.
 - Shahbazgarhi rock edicts are cut into the surface of two large boulders on the side of a small rocky outcrop in the Valley of

Peshawar.

- Sanchi stupa at Madhya Pradesh is one of the earliest Buddhist monuments in India built by Emperor Ashoka.
- Sohgaura - Sohgaura is a copper plate inscription written in Prakrit in the Bramhi script. It was discovered in Sohgaura, a village in Gorakhpur district, Uttar Pradesh.

59. Consider the following:

1. Deification of the Buddha.
2. Treading the path of Bodhisattvas.
3. Image worship and rituals.

Which of the above is/are the feature/ features of Mahayana Buddhism?

A 1 only

B 1 and 2 only

C 2 and 3 only

D 1, 2 and 3

Solution

- Mahayana Buddhism is one of two main existing branches of Buddhism.
- It started considering Buddha as a god rather than a great teacher and began worshipping Buddha's images.
- The teachings of Mahayana are also nothing but treating the path of various Bodhisattvas.

60. **With reference to forced labour (Vishti) in India during the Gupta period, which one of the following statements is correct?**

A

It was considered a source of income for the State, a sort of tax paid by the people.

B

It was totally absent in the Madhya Pradesh and Kathiawar regions of the Gupta Empire.

C

The forced labourer was entitled to weekly wages.

D

The eldest son of the labourer was sent as the forced labourer.

Solution

- In the Gupta period, Vishti or forced labor became a source of income for the state and was looked upon as a sort of taxation paid by the people.
- Vishti was forced labour in lieu of tax and therefore not entitled to weekly wages.
- Anyone can be sent as the forced labourer, not particularly from the eldest son of the labourer.
- Most of the inscriptions refers to Vishti as more prevalent in the Madhya Pradesh and Kathiawar regions of the Gupta Empire.

61. Which one of the following groups of plants was domesticated in the 'New World' and introduced into the 'Old World'?

A Tobacco, cocoa and rubber

B Tobacco, cotton and rubber.

C Cotton, coffee and sugarcane

D Rubber, coffee and wheat

Solution

- Tobacco, cocoa, and rubber came to India through Europeans in the late medieval or early modern era and so these are the groups of plants that were domesticated in the 'New World' and introduced into the 'Old World'.
- All of them originated in South America.
- This process is called a Columbian exchange (named for Christopher Columbus).
- It was the widespread transfer of plants, animals, culture, human populations, technology, diseases, and ideas between the Americas, West Africa, and the Old World during the 15th and 16th centuries.
- Sugar cane is also the oldest crop and is introduced to India by Austronesian traders.

- Rubber was native to Brazil. Cotton and wheat were cultivated in India since the ancient era.
- Even there was evidence of Cotton and wheat since the Harappan era.

62. Consider the following statements:

1. Asiatic lion is naturally found in India only.
2. Double-humped camel is naturally found in India only.
3. One-horned rhinoceros is naturally found in India only.

Which of the statements given above is / are correct?

A 1 only

B 2 only

C 1 and 3 only

D 1, 2 and 3

Solution

- S1: The Asiatic lion's range is restricted to the Gir National Park and environs in the Indian state of Gujarat.
- S2: The Bactrian camel (*Camelus bactrianus*) is a large, even-toed ungulate native to the steppes of Central Asia.
- S3: The one-horned rhinoceros is native to the Indian subcontinent (not only India). The Indian rhinoceros once ranged throughout the entire stretch of the Indo-Gangetic Plain, but excessive hunting and

agricultural development reduced their range drastically to 11 sites in northern India and southern Nepal.

63. Consider the following pairs:

	Famous place	River
1.	Pandharpur	Chandrabhaga
2.	Tiruchirappalli	Cauvery
3.	Hampi	Malaprabha

Which of the pairs given above are correctly matched?

A 1 and 2 only

B 2 and 3 only

C 1 and 3 only

D 1, 2 and 3

Solution

- **Pandharpur -**

- It is a city on the banks of Chandrabhaga River in Maharashtra.
- The famous Lord Vitthal-Rukmini Mandir is located in this city.

- **Tiruchirappalli -**

- It is situated on the banks of river Cauvery.
- It is a city in the Indian state of Tamil Nadu.
- The famous Sri Ranganathaswamy Temple is located in Tiruchirappalli.

- **Hampi -**

- It was the capital of the Vijayanagara kingdom and is located on the bank of the Tungabhadra River.
- Hampi is located in Karnataka.
- Many famous temples like Virupaksha Temple, Nandi Statue etc are located in Hampi.

- **Pattadakal or Pattadakallu** is situated on the banks of the river Malaprabha and is located in Karnataka.

64. In a given year in India, official poverty lines are higher in some States than in others because:

- A Poverty rates vary from State to State.
- B Price levels vary from State to State.
- C Gross State Product varies from State to State.
- D Quality of public distribution varies from State to State.

Solution

- Poverty lines would vary from State to State because of inter-state price differentials.
- According to the Planning Commission, in 2011-12 for rural areas, the national poverty line by using the Tendulkar methodology is estimated at Rs 816 per capita per month in villages and Rs 1,000 per capita per month in cities.
- The poverty line depends on the income profile of the population and on the basis of consumer expenditure.
- The poverty line is a function of the cost of consumption basket which varies from state to state.

65. In the context of which of the following do some scientists suggest the use of cirrus cloud thinning technique and the injection of sulphate aerosol into stratosphere?

- A** Creating the artificial rains in some regions.
- B** Reducing the frequency and intensity of tropical cyclones.
- C** Reducing the adverse effects of solar wind on the Earth.
- D** Reducing the global warming.

Solution

- The ability of stratospheric sulfate aerosols to create a global dimming effect has made them a possible candidate for use in solar radiation management climate engineering projects to limit the effect and impact of climate change due to rising levels of greenhouse gases.
- Delivery of precursor sulfide gases such as sulfuric acid, hydrogen sulfide (H₂S) or sulfur dioxide (SO₂) by artillery, aircraft and balloons has been proposed.
- Cirrus cloud thinning is a proposed form of climate engineering.
- Cirrus clouds are high cold ice that, like other clouds, both reflect sunlight and absorb warming infrared radiation.

- However, they differ from other types of clouds in that, on average, infrared absorption outweighs sunlight reflection, resulting in a net warming effect on the climate.
- Therefore, thinning or removing these clouds would reduce their heat trapping capacity, resulting in a cooling effect on Earth's climate.

66. In the context of which one of the following are the terms 'pyrolysis and plasma gasification' mentioned?

A Extraction of rare earth elements.

B Natural gas extraction technologies.

C Hydrogen fuel-based automobiles.

D Waste-to-energy technologies.

Solution

- Pyrolysis is a process of chemically decomposing organic materials at elevated temperatures in the absence of oxygen.
 - The process typically occurs at temperatures above 430 °C and under pressure.
 - It is commonly used to convert organic materials into a solid residue containing ash and carbon, small quantities of liquid and gases.
- Plasma gasification is an extreme thermal process using plasma which converts organic matter into a syngas (synthesis gas) which is primarily made up of hydrogen and carbon monoxide.
 - It is used in commercial use as a waste-to-energy system that converts municipal solid waste, tires, hazardous waste, and sewage sludge into synthesis gas (syngas) containing

hydrogen and carbon monoxide that can be used to generate power.

67. Which of the following are in Agasthyamala Biosphere Reserve?

A

Neyyar, Peppara and Shendurney Wildlife Sanctuaries; and Kalakad Mundanthurai Tiger Reserve

B

Mudumalai, Sathyamangalam and Wayanad Wildlife Sanctuaries; and Silent Valley National Park

C

Kaundinya, Gundla Brahme-swaram and Papikonda Wildlife Sanctuaries; and Mukurthi National Park

D

Kawal and Sri Venkateswara Wildlife Sanctuaries; and Nagarjunasagar-Srisailem Tiger Reserve

Solution

- Agasthyamala Biosphere Reserve is a unique genetic reservoir of cultivated plants.
- It is located in the Western Ghats in the southern India.
- Three wildlife sanctuaries, Shendurney, Peppara and Neyyar, are located in the site, as well as the Kalakad Mundanthurai Tiger reserve.

68. Consider the following statements:

1. Some species of turtles are herbivores.
2. Some species of fish are herbivores.
3. Some species of marine mammals are herbivores.
4. Some species of snakes are viviparous.

Which of the statements given above are correct?

A 1 and 3 only

B 2, 3 and 4 only

C 2 and 4 only

D 1, 2, 3 and 4

Solution

- Green sea turtles eat seagrasses and algae, though juveniles snack on crabs, sponges, and jellyfish.
 - In the wild, they can live up to 80 years and grow up to five feet long.
 - Once mature, it is the only sea turtle that is strictly herbivorous.
 - The jaw structure of many species indicates their diet. **Hence, statement 1 is correct.**

- Herbivorous fishes are fishes that eat plant material.
 - Surgeonfish and Parrotfish are algae eaters.
 - They obtain the algae by ripping small chunks of coral from a reef.
 - Many other herbivores thrive among the fish population.
 - Other herbivores include the Japanese angelfish, yellow blotch-rabbit fish, and tilapia. **Hence, statement 2 is correct.**
- Marine herbivores are found within four groups of species in the animal kingdom — invertebrates, fish, reptiles and mammals — and include zooplankton, mollusks, the green sea turtle, the marine iguana and some fish species.
 - Manatees and dugongs are the only herbivores among marine mammals. Their diet consists of water grasses, weeds, and algae. **Hence, statement 3 is correct.**
- Snakes are reptiles, and most species of snakes will follow the general rules of reptilian reproduction — the mother will lay a clutch of eggs that will hatch into baby snakes.
 - Such snakes are referred to as oviparous.
 - A few exceptional species of snakes diverge from this general rule.
 - They are referred to as viviparous, and they give birth to live young.
 - Both oviparous and viviparous snakes have uteri, or wombs; however, only viviparous snakes form placental attachments between their uteri and the developing fetuses.
 - Boa constrictors and green anacondas are two examples of viviparous snakes, meaning they give birth to live young with no eggs involved at any stage of development. **Hence, statement 4 is correct.**

69. Consider the following pairs:

	Wildlife	Naturally found in
1.	Blue-finned Mahseer	Cauvery River
2.	Irrawaddy Dolphin	Chambal River
3.	Rusty-spotted Cat	Eastern Ghats

Which of the pairs given above are correctly matched?

A 1 and 2 only

B 2 and 3 only

C 1 and 3 only

D 1, 2 and 3

Solution

- In the river Cauvery, the Mahseer community comprises a “blue-finned” and an “orange-finned, hump-backed” fish.
 - While it is not yet known whether these are distinct species or 2 different phenotypes, evidence suggests that the hump-backed phenotype is endemic to the river, whereas the blue-

finned phenotype was introduced in the 1980s. **Hence, statement 1 is correct.**

- Irrawaddy Dolphin is a critically endangered species.
 - They are found in coastal areas in South and Southeast Asia, and in three rivers: the Ayeyarwady (Myanmar), the Mahakam (Indonesian Borneo) and Mekong.
 - In India, it is found in Lake Chilika and not the Chambal river.

Hence, statement 2 is not correct.

- Rusty Spotted Cat is one of the world's smallest feline.
 - In India, it was long thought to be confined to the south, but records have established that it is found over much of the country.
 - It was observed in eastern Gujarat's Gir National Park, in Maharashtra's Tadoba-Andhari Tiger Reserve and along India's Eastern Ghats. **Hence, statement 3 is correct.**

70. **Why is there a great concern about the ‘microbeads’ that are released into environment?**

A They are considered harmful to marine ecosystems.

B They are considered to cause skin cancer in children.

C They are small enough to be absorbed by crop plants in irrigated fields.

D They are often found to be used as food adulterants.

Solution

- Microbeads are manufactured solid plastic particles of less than one millimeter in their largest dimension.
- They are most frequently made of polyethylene but can be of other petrochemical plastics such as polypropylene and polystyrene.
- They are used in exfoliating personal care products, toothpastes and in biomedical and health-science research.
- Microbeads can cause plastic particle water pollution and pose an environmental hazard for aquatic animals in freshwater and ocean water.

71. **Building 'Kalyaana Mandapas' was a notable feature in the temple construction in the kingdom of :**

A Chalukya

B Chandela

C Rashtrakuta

D Vijayanagara

Solution

- **Vijayanagara Architecture -**
 - The Vijaynagara Empire was founded by Harihara and Bukka in 1336 AD.
 - The chief characteristics of the Vijayanagara architecture were the constructions of tall Raya Gopurams or gateways, the Kalyana mandapam with carved pillars in the temple premises, the Garbhagriha, and the Amman shrine.
 - The horse was the most common animal found on the pillars where sculptures were carved.
 - Building 'Kalyana Mandapas' was a notable feature in the temple construction of this kingdom.
 - Virupaksha Temple at Hampi and the Hazara Rama temple of Deva Raya I are famous examples of the Vijayanagara style of

architecture.

72. Consider the following statements:

1. In the revenue administration of Delhi Sultanate, the in-charge of revenue collection was known as 'Amil'.
2. The Iqta system of Sultans of Delhi was an ancient indigenous institution.
3. The office of 'Mir Bakshi' came into existence during the reign of Khalji Sultans of Delhi.

Which of the statements given above is/are correct?

A 1 only

B 1 and 2 only

C 3 only

D 1, 2 and 3

Solution

- **Amils -**

- They were officers in charge of collecting revenue during the sultanate era in North India.
- Akbar had even directed the Amils to extend loans to the peasants in times of need and encourage them to show high-quality seeds. **Hence statement 1 is correct.**

- **Mir Bakshi -**

- He was the head of the Mughal military department and was also considered the head of the nobility.
- He was also the head of the intelligence and information agencies of the empire. **Hence statement 3 is not correct.**
- Under the **Iqta System**, the land of the empire was divided into several large and small tracts called Iqta and assigned these Iqtas to the soldiers, officers and nobles.
 - It was introduced by Delhi sultans, was originally of Central Asian and West Asian origin and was not an ancient indigenous institution. **Hence statement 2 is not correct.**

73. Consider the following statements:

1. Saint Nimbarka was a contemporary of Akbar.
2. Saint Kabir was greatly influenced by Shaikh Ahmad Sirhindi.

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

- **Saint Nimbarka -**
 - He was the preacher of Vaishnavite Bhakti in the Telangana region.
 - Saint Nimbarka was not a contemporary of Akbar.
 - Saint Nimbarka belongs to the 13th or 14th century while Akbar reigned during the 16th century. **Hence statement 1 is not correct.**
- **Saint Kabir:**
 - Kabir was the disciple of Ramananda. Saint Kabir was the follower of Nirguna Bhakti who lived in the 15th century

while Shaikh Ahmad Sirhindi was the Islamic scholar of Naqshbandi Silsilah who lived during the 16th century. **Hence statement 2 is not correct.**

74. **With reference to the British colonial rule in India, consider the following statements:**

- 1. Mahatma Gandhi was instrumental in the abolition of the system of 'indentured labour'.**
- 2. In Lord Chelmsford's 'War Conference', Mahatma Gandhi did not support the resolution on recruiting Indians for World War.**
- 3. Consequent upon the breaking of Salt Law by Indian people, the Indian National Congress was declared illegal by the colonial rulers.**

Which of the statements given above are correct?

A 1 and 2 only

B 1 and 3 only

C 2 and 3 only

D 1, 2 and 3

Solution

- Gandhi was instrumental in the abolition of the indentured (meaning contract) labour system in the British Empire. **Hence statement 1 is correct.**
- In Lord Chelmsford's 'War Conference', Mahatma Gandhi supported the resolution on recruiting Indians for World War.

- In order to gain the trust of the empire and to attain swaraj, he supported resolution recruiting Indians in the army for World War I. **Hence statement 2 is not correct.**
- On March 12, 1930, Gandhiji started the famous Dandi March (Salt Satyagraha) from his residence at Sabarmati protesting against the 1882 Salt Act.
 - On Apr 6, 1930, Gandhiji broke Salt laws at Dandi.
 - Consequent upon the breaking of Salt Law by Indian People, in January 1932 the Indian National Congress was declared illegal by the colonial rulers. **Hence statement 3 is correct.**

75. **With reference to Indian National Movement, consider the following pairs:**

	Person	Position held
1.	Sir Tej Bahadur Sapru	President, All India Liberal Federation
2.	K. C. Neogy	Member, The Constituent Assembly
3.	P. C. Joshi	General Secretary, Communist Party of India

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

A 1 only

B 1 and 2 only

C 3 only

D 1, 2 and 3

Solution

- **Sir Tej Bahadur Sapru -**
 - He was the president of the All India Liberal Federation.
 - When the Montagu report of 1918 was made public, there was a divide in the Congress over it.

- The moderates welcomed it with some alterations while the extremists outrightly rejected it.
- This led to a division in the Congress with moderate (liberals) leaders forming the "Indian National Liberal Federation" in 1919.
- The party (INLF) was founded by Surendra Nath Banerjee and some of its prominent leaders were Tej Bahadur Sapru, V. S. Srinivasa Sastri, and M. R. Jayakar.
- Tej Bahadur Sapru emerged as the most important leader among the Liberals.
- **K. C. Neogy -**
 - He was the chairman of the first Finance Commission of India.
 - He was elected as a member of the Constituent Assembly of India.
- **P. C. Joshi -**
 - He was the general secretary of the Communist Party of India

76. **With reference to Mian Tansen, which one of the following statements is not correct?**

A Tansen was the title given to him by Emperor Akbar.

B Tansen composed Dhrupads on Hindu gods and goddesses.

C Tansen composed songs on his patrons.

D Tansen invented many Ragas.

Solution

- Tansen was the title given to him by Raja Vikramjit of Gwalior.
- Akbar gave the title of Kanthabharan Vanivilas to Tansen.
- He was the court poet of Raja Ramchandra Singh of Rewa and also Akbar.
- He specialized in the Dhrupad style of singing.
- He invented the night raga Darbari Kanhra, morning raga Mian Ki Todi, mid-day raga, Mian ki Sarang, seasonal raga Mian ki Malhar.
- He composed many Dhrupads on Hindu gods and goddesses like Ganesha, Shiva, Parvati and Rama.
- He also composed songs on his patrons.

77. **Who among the following Mughal Emperors shifted emphasis from illustrated manuscripts to album and individual portrait?**

A Humayun

B Akbar

C Jahangir

D Shah Jahan

Solution

- Jahangir was also deeply influenced by European painting.
- During his reign he came into direct contact with the English Crown and was sent gifts of oil paintings, which included portraits of the King and Queen.
- He encouraged his royal atelier to take up the single point perspective favoured by European artists, unlike the flattened multi-layered style used in traditional miniatures.
- He particularly encouraged paintings depicting events of his own life, individual portraits, and studies of birds, flowers and animals.

78. Which one of the following National Parks lies completely in the temperate alpine zone?

A Manas National Park

B Namdapha National Park

C Neora Valley National Park

D Valley of Flowers National Park

Solution

- Valley of flowers is famous for its alpine meadows.
- It wholly lies in temperate alpine zone.
- The valley has three sub-alpine between 3,200m and 3,500m which is the limit for trees, lower alpine between 3,500m and 3,700m, and higher alpine above 3,700m.

79. **Atal Innovation Mission is set up under the :**

A Department of Science and Technology

B Ministry of Employment

C NITI Aayog

D Ministry of Skill Development and Entrepreneurship

Solution

- The Atal Innovation Mission (AIM) is a flagship initiative of NITI Aayog.
- It is launched to promote innovation and entrepreneurship across the country.
- Its objective is to serve as a platform for the promotion of world-class Innovation Hubs, Grand Challenges, Start-up businesses, and other self-employment activities, particularly in technology-driven areas.

80. On 21st June, the Sun-

A Does not set below the horizon at the Arctic Circle.

B Does not set below the horizon at Antarctic Circle.

C Shines vertically overhead at noon on the Equator.

D Shines vertically overhead at the Tropic of Capricorn.

Solution

- 21 June is the day on which summer solstice occurs in Northern Hemisphere.
- In summer solstice the hemisphere experience the longest day of the year.
- At the pole, it results in continuous daylight throughout the day.
- Thus, on 21 June the sun does not set below the horizon in the arctic circle in the north pole region.
- The summer solstice occurs in the southern hemisphere between 20 – 23 December.

81. Consider the following statements:

1. Agricultural soils release nitrogen oxides into environment.
2. Cattle release ammonia into environment.
3. Poultry industry releases reactive nitrogen compounds into environment.

Which of the statements given above is/are correct?

A 1 and 3 only

B 2 and 3 only

C 2 only

D 1, 2 and 3

Solution

- Agricultural soils contributed to over 70% of N₂O emissions from India in 2010, followed by waste water (12%) and residential and commercial activities (6%).
- Since 2002, N₂O has replaced methane as the second largest Greenhouse Gas (GHG) from Indian agriculture.
- Cattle account for 80% of the ammonia production, though their annual growth rate is 1%, due to a stable population.

- The poultry industry, on the other hand, with an annual growth rate of 6%, recorded an excretion of reactive nitrogen compounds of 0.415 tonnes in 2016.

82. **What is common to the places known as Aliyar, Isapur and Kangsabati?**

A Recently discovered uranium deposits.

B Tropical rain forests.

C Underground cave systems.

D **Water reservoirs.**

Solution

- Aliyar, Isapur and Kangsabati are the names which have water reservoir common to them.
 - The Aliyar reservoir is a reservoir located in Aliyar village near Pollachi town in Coimbatore district of Tamil Nadu.
 - The dam is located in the Anaimalai Hills of the Western Ghats.
 - The Isapur Dam is an earth-fill dam on the Penganga river in the Hingoli district of Maharashtra.
 - The Kangsabati Reservoir Project was started in 1956 as part of the Indian Second Five-year Plan to provide water in the districts of Midnapur, Bankura, and Hooghly.
 - It involves irrigation of land using water from the Kangsabati River, as well as the Shilabati and the Bhoiobbanki rivers.

83. In the context of proposals to the use of hydrogen-enriched CNG (H-CNG) as fuel for buses in public transport, consider the following statements:

- 1. The main advantage of the use of H-CNG is the elimination of carbon monoxide emissions.**
- 2. H-CNG as fuel reduces carbon dioxide and hydrocarbon emissions.**
- 3. Hydrogen up to one-fifth by volume can be blended with CNG as fuel for buses.**
- 4. H-CNG makes the fuel less expensive than CNG.**

Which of the statements given above is / are correct?

A 1 only

B 2 and 3 only

C 4 only

D 1, 2, 3 and 4

Solution

- HCNG is a mixture of compressed natural gas (CNG) and some % Hydrogen by energy.

- HCNG which may be used as a fuel of Internal Combustion Engine (ICE) is considered a cleaner source of fuel, more powerful and offers more mileage than even CNG.

Some advantages of HCNG:

- HCNG reduces emissions of CO up to 70%. S1 is incorrect since it is not possible.
- Enables up to 5 % savings in fuel.
- Better performance due to higher Octane rating of H₂.
- S3: Delhi Government has tied up with Indian Oil Corporation Limited to study the technology and infrastructure needs to induct 50 HCNG buses on a trial basis. IOCL has plans to mix (18-20) % Hydrogen in these buses.
- S4: Current cost of H₂ is more than the cost of Natural Gas. So, HCNG's cost is more than CNG.

84. Why are dewdrops not formed on a cloudy night?

A Clouds absorb the radiation released from the Earth's surface.

B Clouds reflect back the Earth's radiation.

C The Earth's surface would have low temperature on cloudy nights.

D Clouds deflect the blowing wind to ground level.

Solution

- The dew formation is more when the sky is clear and less when it is cloudy.
- When the sky is clear and the trees and plants are cooler at nights, there is more evaporation of water and hence more dew formation.
- But when it is cloudy, trees and plants do not get cool in the night and hence there is less dew formation.
- As the sun raises high in the sky, these dew drops evaporate into air.

85. Consider the following statements:

1. The 44th Amendment to the Constitution of India introduced an Article placing the election of the Prime Minister beyond judicial review.
2. The Supreme Court of India struck down the 99th Amendment to the Constitution of India as being violative of the independence of judiciary.

Which of the statements given above is/are correct?

A 1 only

B 2 only

C Both 1 and 2

D Neither 1 nor 2

Solution

- The thirty-ninth Amendment of the Constitution of India; enacted on 10th August 1975, placed the election of the President, the Vice President, the Prime Minister and the Speaker of the Lok Sabha beyond the scrutiny of the Indian courts.
 - It was passed during the Emergency of 1975–1977.
 - This amendment act removed the authority of the Supreme Court to adjudicate petitions regarding elections of the

President, Vice President, Prime Minister and Speaker of the Lok Sabha.

- Instead, a body constituted by Parliament would be vested with the power to resolve such election disputes. **Hence, statement 1 is not correct.**
- The ninety-ninth Constitutional Amendment of India would have established the National Judicial Appointments Commission.
 - The National Judicial Appointments Commission (NJAC) was a body tasked with appointing judges to the higher judiciary in India.
 - Article 124 of the Constitution was amended through the 99th Amendment to reflect the change in the system of appointments from the collegium system.
 - But, in 2015, the Constitution Bench of Supreme Court by 4:1 majority upheld the collegium system and struck down the NJAC as unconstitutional. **Hence, statement 2 is correct.**

86. Consider the following statements:

1. The- motion to impeach a Judge of the Supreme Court of India cannot be rejected by the Speaker of the Lok Sabha as per the Judges (Inquiry) Act, 1968.
2. The Constitution of India defines and gives details of what Constitutes ‘incapacity and proved misbehaviour’ of the Judges of the Supreme Court of India.
3. The details of the process of impeachment of the Judges of the Supreme Court of India are given in the Judges (Inquiry) Act, 1968.
4. If the motion for the impeachment of a Judge is taken up for voting, the law requires the motion to be backed by each House of the Parliament and supported by a majority of total membership of that House and by not less than two-thirds of total members of that House present and voting.

Which of the statements given above is/are correct?

A 1 and 2

B 3 only

C 3 and 4 only

D 1, 3 and 4

Solution

- A judge of Supreme Court of India may be removed from office through a motion adopted by Parliament on grounds of ‘proven misbehaviour or incapacity’.
- However, the Constitution of India does not defines or provide any details of what constitutes ‘incapacity and proved misbehaviour’.
Hence, statement 2 is not correct.
- The Judges Enquiry Act (1968) regulates the procedure relating to the removal of a judge of the Supreme Court by the process of impeachment. **Hence, statement 3 is correct.**
- The impeachment procedure of a Supreme Court judge is given below: A removal motion signed by 100 members (in the case of Lok Sabha) or 50 members (in the case of Rajya Sabha) is to be given to the Speaker/Chairman.
- The Speaker/Chairman may admit the motion or refuse to admit it.
Hence, statement 1 is not correct.
- If it is admitted, then the Speaker/Chairman is to constitute a three-member committee to investigate into the charges.
- The committee should consist of the chief justice or a judge of the Supreme Court, a chief justice of a high court, and a distinguished jurist If the committee finds the judge to be guilty of proved misbehaviour or suffering from an incapacity, the House can take up the consideration of the motion.
- The address must be supported by a special majority of each House of Parliament (i.e, a majority of the total membership of that House and a majority of not less than two-thirds of the members of that House present and voting). **Hence, statement 4 is correct.**
- Finally, the President passes an order removing the judge. No judge of the Supreme Court has been impeached so far. Impeachment motions of Justice V Ramaswami (1991–1993) and the Justice Dipak Misra (2017-18) were defeated in the Parliament.

87. **The Ninth Schedule was introduced in the Constitution of India during the prime ministership of :**

A Jawaharlal Nehru

B Lal Bahadur Shastri

C Indira Gandhi

D Morarji Desai

Solution

- The Ninth Schedule contains a list of central and state laws which cannot be challenged in courts and was added by the Constitution (First Amendment) Act, 1951.
- It was created by the new Article 31B, which along with Article 31A was brought in by the government to protect laws related to agrarian reform and for abolishing the Zamindari system.
- While Article 31A extended protection to ‘classes’ of laws, Article 31B shielded specific laws or enactments.
- While most of the laws protected under the Schedule concern agriculture/land issues, the list includes other subjects also. It was inserted during the tenure of Prime Minister Jawaharlal Nehru.
- The first amendment added 13 laws to the Ninth Schedule. Subsequent amendments in various years have taken the number of

protected laws to 284 currently.

- Although Article 31B excludes judicial review, the apex court has said in the past that even laws under the Ninth Schedule would be open to scrutiny if they violated fundamental rights or the basic structure of the Constitution.

88. Consider the following statements:

1. Coal sector was nationalized by the Government of India under Indira Gandhi.
2. Now, coal blocks are allocated on lottery basis.
3. Till recently, India imported coal to meet the shortages of domestic supply, but now India is self-sufficient in coal production.

Which of the statements given above is/are correct?

A 1 only

B 2 and 3 only

C 3 only

D 1, 2 and 3

Solution

- Coal sector was nationalised under Indira Gandhi Government in 1972 in two phases. **Hence Statement 1 is Correct.**
- The coal Blocks are allocated through auctions and not on lottery basis. **Hence Statement 2 is Not Correct.**
- The coal sector is the monopolistic sector in India. India holds 5th biggest coal reserves in the world but due to incapacity of coal

production by monopolistic firms, it imports coals to meet the shortages of domestic supply.

- But, still the country is not self-sufficient of coal production. **Hence Statement 3 is Not Correct.**

89. Consider the following statements:

1. The Parliament (Prevention of Disqualification) Act, 1959 exempts several posts from disqualification on the grounds of 'Office of Profit'.
2. The above-mentioned Act was amended five times.
3. The term 'Office of Profit' is well-defined in the Constitution of India.

Which of the statements given above is/are correct?

A 1 and 2 only

B 3 only

C 2 and 3 only

D 1, 2 and 3

Solution

- According to Articles 102(1)(a) and 191(1)(a) of Constitution, legislators (MP or MLA) can be barred from holding office of profit under Central Government or state government as it can put them in position to gain financial benefit.
- The Parliament (Prevention of Disqualification) Act was enacted on 4th April 1959 to declare the certain office of profit under the

Government includes both Central and State Government not to be disqualified the holders as of being the members of the Parliament.

- The above-mentioned Act was amended five times. The term 'Office of Profit' is well-defined in the Constitution of India.

90. Under which Schedule of the Constitution of India can the transfer of tribal land to private parties for mining be declared null and void?

A Third Schedule

B Fifth Schedule

C Ninth Schedule

D Twelfth Schedule

Solution

- The Indian Constitution provides autonomy to tribal areas in governance under the Fifth and Sixth Schedules.
- Fifth schedule entails the provisions relating to the administration and control of scheduled areas and scheduled tribes.
- Sixth schedule entails the provisions relating to the administration of tribal areas in the states of Assam, Meghalaya, Tripura and Mizoram.
- According to the *Samatha v. State of Andhra Pradesh & Ors* (1997) judgment where the Supreme Court declared that the transfer of tribal land to private parties for mining was null and void under the Fifth Schedule.
- The protection of the rights of tribal and indigenous people is further strengthened by the Recognition of Forest Rights Act, 2006 which

protects the individual and community rights of tribal people in forest areas and their right to free and prior informed consent in event of their displacement and resettlement.

91. Recently, there was a growing awareness in our country about the importance of Himalayan nettle (*Girardinia diversifolia*) because it is found to be a sustainable source of :

A Anti-malarial drug

B Bio-diesel

C Pulp for paper industry

D Textile fibre

Solution

- *Girardinia diversifolia* (Himalayan nettle), a fibre-yielding plant, has become an important livelihood option for people living in the remote mountainous villages of the Hindu Kush Himalaya.
- There is a community in Khar, a hamlet in Darchula district in far-western Nepal, which produces fabrics from Himalayan nettle.
- The fabric and the things made from it are sold in local as well as national and international markets as high-end products.

92. For the measurement/estimation of which of the following are satellite images/remote sensing data used?

1. Chlorophyll content in the vegetation of a specific location.
2. Greenhouse gas emissions from rice paddies of a specific location.
3. Land surface temperatures of a specific location.

Select the correct answer using the code given below:

A 1 only

B 2 and 3 only

C 3 only

D 1, 2 and 3

Solution

- With the development of remote sensing from space, satellite data offers the possibility for measuring land surface temperature over the entire globe with sufficiently high temporal resolution and with complete spatially averaged rather than point values. **Hence, statement 3 is correct.**
- It is also possible to measure chlorophyll content in the vegetation of a specific location as chlorophyll will reflect more light in the green

and near infrared spectrum compared to other wavelengths. **Hence, statement 1 is correct.**

- Remote sensing from satellites can also deliver information on greenhouse gas(GHGs) soil emissions by estimating tropospheric, near-surface CO₂ and CH₄ concentrations based on the measurement of the intensity of the reflected sunlight in small wavelength bands in the visible and short-wavelength IR portion of the spectrum.
- So, greenhouse gas emissions from rice paddies of a specific location can also be estimated by satellite image/remote sensing data. **Hence, statement 2 is correct.**

93. Consider the following States:

1. Chhattisgarh
2. Madhya Pradesh
3. Maharashtra
4. Odisha

With reference to the States mentioned above, in terms of percentage of forest cover to the total area of State, which one of the following is the correct ascending order?

A 2-3-1-4

B 2-3-4-1

C 3-2-4-1

D 3-2-1-4

Solution

- As per the report published by the Forest Survey of India the percentage of forested area in ascending order is:
 - Chhattisgarh (41.09%),
 - Odisha (32.98%),
 - Madhya Pradesh (25.11%),
 - Maharashtra (16.47%).

94. Which of the following statements are correct about the deposits of 'methane hydrate'?

1. Global warming might trigger the release of methane gas from these deposits.
2. Large deposits of 'methane hydrate' are found in Arctic Tundra and under the seafloor.
3. Methane in atmosphere oxidizes to carbon dioxide after a decade or two.

Select the correct answer using the code given below.

A 1 and 2 only

B 2 and 3 only

C 1 and 3 only

D 1, 2 and 3

Solution

- S1 and S2: Large but poorly known amounts of methane are trapped in the sediments beneath the sea floor (in Tundra region and elsewhere), frozen into a form of water ice called methane hydrate.

- At low temperatures the methane hydrates on the sea floor are stable, but if the water and the sea floor become warmer, then the hydrates can break down. Because microorganisms then oxidize the resulting methane gas to form the greenhouse gas carbon dioxide (CO₂), methane hydrates have recently become a topic of intense discussion within the context of climate change.
- S3: Methane is relatively short-lived in the atmosphere; a molecule of methane is oxidized to water and carbon dioxide within a decade or so, mainly by reaction with another trace gas, the hydroxyl radical OH⁻.
 - Thus, unlike the case of carbon dioxide (which stays in the atmosphere longer than methane), a concerted effort to reduce methane emissions would have almost immediate results in terms of reduction of greenhouse effect.

95. Consider the following:

1. Carbon monoxide
2. Methane
3. Ozone
4. Sulphur dioxide

Which of the above are released into atmosphere due to the burning of crop/biomass residue?

A 1 and 2 only

B 2, 3 and 4 only

C 1 and 4 'only

D 1, 2, 3 and 4

Solution

- Agricultural crop residue burning contribute towards the emission of greenhouse gases (CO₂, N₂O, CH₄), air pollutants (CO, NH₃, NO_x, SO₂, NMHC, volatile organic compounds), particulates matter and smoke thereby posing threat to human health.
- Satellite observations have revealed elevated levels of O₃ (Ozone), CO and aerosols over vast areas of Central Africa and South America, over the tropical Atlantic, and the Indian Ocean due to

long-range transport of pollutants emitted from biomass burning.

96. Consider the following pairs:

	Sea	Bordering country
1.	Adriatic Sea	Albania
2.	Black Sea	Croatia
3.	Caspian Sea	Kazakhstan
4.	Mediterranean Sea	Morocco
5.	Red Sea	Syria

Which of the pair given above are correctly matched?

A 1, 2 and 4 only

B 1, 3 and 4 only

C 2 and 5 only

D 1, 2, 3, 4 and 5

Solution

- The **Adriatic Sea** is a body of water separating the Italian Peninsula from the Balkan peninsula. The countries with coasts on the Adriatic

sea are Albania, Bosnia and Herzegovina, Croatia, Italy, Montenegro and Slovenia. **Hence, statement 1 is correct.**

- **Black Sea** is a large inland sea situated at the southeastern extremity of Europe. It is bordered by Ukraine to the north, Russia to the northeast, Georgia to the east, Turkey to the south, and Bulgaria and Romania to the west. Black Sea is not bordered by Croatia. **Hence, statement 2 is not correct.**
- **Caspian Sea** is the world's largest inland body of water, variously classed as the world's largest lake or a full-fledged sea. It is an endorheic basin (a basin without outflows) located between Europe and Asia. It is bounded by Kazakhstan to the northeast, Russia to the northwest, Azerbaijan to the west, Iran to the south, and Turkmenistan to the southeast. **Hence, statement 3 is correct.**
- **Mediterranean Sea** is an intercontinental sea that stretches from the Atlantic Ocean on the west to Asia on the east and separates Europe from Africa. The countries surrounding the Mediterranean in clockwise order are Spain, France, Monaco, Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania, Greece, Turkey, Syria, Lebanon, Israel, Egypt, Libya, Tunisia, Algeria, and Morocco. **Hence, statement 4 is correct.**
- **Red Sea** is a narrow strip of water extending south-eastward from Suez, Egypt, for about 1,930 km to the Bab-el-Mandeb Strait, which connects with the Gulf of Aden and thence with the Arabian Sea. The six countries bordering the Red Sea proper are - Saudi Arabia, Yemen, Egypt, Sudan, Eritrea and Djibouti. Red Sea is not bordered by Syria. **Hence, statement 5 is not correct.**

97. Among the following, which one is the largest exporter of rice in the world in the last five years?

A China

B India

C Myanmar

D Vietnam

Solution

- India emerged the world's largest rice exporter in 2011-12, displacing Thailand from its leadership position.
- Two factors played a role in this. The first was the government's decision in February 2011 to lift a four-year ban on exports of non-basmati varieties of rice, paving the way for a rise in exports of those varieties.
- The second was a decision of the then Thai government under Prime Minister Yingluck Shinawatra, taken in the same year, to favour farmers by strengthening a Rice Pledging Scheme under which it promised to procure unlimited stocks at an enhanced price that reflected a 50 per cent increase over 2010.

98. Consider the following pairs:

	Glacier	River
1.	Bandarpunch	Yamuna
2.	Bara Shigri	Chenab
3.	Milam	Mandakini
4.	Siachen	Nubra
5.	Zemu	Manas

Which of the pairs given above are correctly matched?

A 1, 2 and 4 only

B 1, 3 and 4 only

C 2 and 5 only

D 3 and 5 only

Solution

1. Yamunotri(source of river Yamuna) is near the bandarpunch peak in Uttarakhand.

2. Bara Shigri Glacier is the source of river Chenab in himachal pradesh.
3. Milam glacier is the source of river goriganga in Uttarakhand. the Mandakini river originates from chorabari glacier.
4. Siachen glacier is the source of the river nubra(part of Indus valley system) in Ladakh.
5. Zemu Glacier is the source of the river teesta(part of Brahmaputra) in Sikkim. The manas river flows from glaciers in Bhutan.

99. In India, the use of carbofuran, methyl parathion, phorate and triazophos is viewed with apprehension. These chemicals are used as :

A Pesticides in agriculture

B Preservatives in processed foods

C Fruit-ripening agents

D Moisturising agents in cosmetics

Solution

- Carbofuran is one of the most toxic carbamate pesticides. It is marketed under the trade names Furadan, by FMC Corporation and Curater, among several others. It is used to control insects in a wide variety of field crops, including potatoes, corn and soybeans.
- “CARDAMOM Planters Marketing Co-operative Society in Kerala has appealed to the high court to suspend the ban on the use of extremely toxic and highly toxic pesticides.
- To promote organic farming in Kerala, the state agriculture department had ordered a ban on the use of these two categories of pesticides on May 7.

- During this period the Kerala Agriculture University was asked to provide alternatives to the banned pesticides, which include carbofuran, phorate, methyl parathion, monocrotophos, methyl demethon, prophenophos and triazophos.
- The university suggested less hazardous pesticides, like acephate, carbaryl, dimethoate and flubendiamide.”

100. Consider the following statements:

1. Under Ramsar Convention, it is mandatory on the part of the Government of India to protect and conserve all the wetlands in the territory of India.
2. The Wetlands (Conservation and Management) Rules, 2010 were framed by the Government of India based on the recommendations of Ramsar Convention.
3. The Wetlands (Conservation and Management) Rules, 2010 also encompass the drainage area or catchment regions of the wetlands as determined by the authority.

Which of the statements given above is / are correct?

A 1 and 2 only

B 2 and 3 only

C 3 only

D 1, 2 and 3

Solution

- Ramsar Convention was signed in 1971 in the Iranian city of Ramsar and is one of the oldest inter-governmental accord for preserving the ecological character of wetlands.

- Article 4 of the Ramsar Convention states that "Each Contracting Party shall promote the conservation of wetlands and waterfowl by establishing nature reserves on wetlands, whether they are included in the List or not, and provide adequately for their wandering." It is not mandatory on the part of the Government of India to protect and conserve all the wetlands in the territory of India. **Hence, statement 1 is incorrect.**
- Wetlands refer to the transitional areas between the terrestrial and aquatic ecosystems.
- The Wetlands (Conservation and Management) Rules, 2010 was notified by the Ministry of Environment and Forest to ensure better conservation and management and to prevent degradation of existing wetlands in India. However, it was not framed on the basis of recommendation of Ramsar Convention. **Hence, statement 2 is not correct.**
- Its objectives were wetland conservation, wetland protection, and wetland management to ensure that no further degradation of wetlands takes place in India.
- As per Wetlands (Conservation and Management) Rules, 2010, a "wetland" means an area or of marsh, fen, peatland or water; natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water, the depth of which at low tide does not exceed six metres and includes all inland waters such as lakes, reservoir, tanks, backwaters, lagoon, creeks, estuaries and manmade wetland and the zone of direct influence on wetlands that is to say the drainage area or catchment region of the wetlands as determined by the authority. **Hence, statement 3 is correct.**



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