

1. With reference to Zig-Zag technology, which of the following statements is correct?
- It is the technology used in public transportation system to reduce the on-road traffic.
 - It is the technology employed to reduce carbon emissions in brick kilns.
 - This is the technology which is used for development of supercomputers.
 - This technology is employed in stem cell research for development of modified pluripotent cells.

Answer: (b)

Explanation:

Option (b) is the correct answer.

Zig Zag technology is employed to reduce carbon emissions from burning of bricks in brick kilns. For cleaner emissions, the **Environmental Pollution (Prevention and Control) Authority (EPCA)** had asked the National Capital Region (NCR) states to work on **Graded Response Action Plan** to reduce the pollution emanating from different sources. In zigzag kilns, bricks are arranged in such manner that allows hot air to travel in a zigzag path. The length of the zigzag air path is about three times that of a straight line, and this improves the heat transfer from the flue gases to the bricks, making the entire operation more efficient. It ensures uniform distribution of heat, increasing the share of Class I bricks to about 90 per cent. It also reduces emissions considerably.

Source:

<https://www.downtoearth.org.in/news/air/brick-kilns-shifting-to-cleaner-technology-but-progress-is-slow-58559>

2. Which of the following statements is/are correct with respect to the 'Green Good Deeds' Movement/Campaign?

- It has been launched by the NITI Aayog to sensitise people and students, in particular about climate change and global warming.
- The BRICS Ministerial on Environment has agreed to include "Green Good Deeds" in its official agenda.

Select the correct answer using the code given below:

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

Answer: (b)

Explanation:

Statement 1 is incorrect.

The 'Green Good Deeds' Campaign has been launched by the **Ministry of Environment, Forest & Climate Change**, to sensitise people and students, in particular about climate change and global warming and to protect environment and promote good living in the country. The Ministry of Environment, Forest & Climate Change had drawn up a list of over 500 Green Good Deeds and asked people to alter their behaviour to Green Good Behaviour to fulfil their Green Social Responsibility.

Statement 2 is correct.

The BRICS Ministerial on Environment at Durban, South Africa, in 2018 has agreed to include "Green Good Deeds" in its official agenda in the next Ministerial in Brazil and another meeting in Russia.

Source:

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=179404>

3. Which of the following initiatives/indices have been launched by the NITI Aayog?

- (1) Sustainable Action for Transforming Human Capital (SATH)
- (2) District Hospital Index
- (3) Digital Transformation Index
- (4) Shagun Portal
- (5) Composite Water Management Index

Select the correct answer using the code given below:

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

Answer: (c)

Explanation:

Shagun Portal is a dedicated web portal for the **Sarva Shiksha Abhiyan** launched by the **Ministry of Human Resource Development**. It aims to capture and showcase innovations and progress in Elementary Education sector of India by continuous monitoring of the Sarva Shiksha Abhiyan (SSA).

Some of the initiatives/indices launched by the NITI Aayog are:

- **Sustainable Action for Transforming Human capital (SATH):** Furthering the agenda for cooperative federalism, SATH ('Sustainable Action for Transforming Human capital) Programme is launched by the NITI Aayog, with the State Governments. The vision of the program is to initiate transformation in the education and health sectors. SATH aims to identify and build three future 'role model' states for health systems. The program will be implemented by the NITI Aayog along with McKinsey & Company and IPE Global consortium, who were

selected through a competitive bidding process.

- **District Hospital Index:** The District Hospital Index was developed by the NITI Aayog to measure and monitor the performance of hospitals with a focus on outputs and outcomes. With emphasis on outcomes, NITI finalized indices to measure incremental annual outcomes in critical social sectors like health, education, water and Sustainable Development Goals (SDG).
- **Digital Transformation Index:** Digital Transformation Index (DTI) is a tool developed by the NITI Aayog for gauging how well one helps an organisation grow and thrive in a digital world.
- **Composite Water Management Index:** It is a tool for water management. The NITI Aayog has developed the Composite Water Management Index (CWMI) to enable effective water management in Indian states in the face of extreme water stress.
- **SAMAVESH:** It is a programme launched by the NITI Aayog to link together various lead Knowledge and Research Institutions to catalyse development processes, enhance institutional capacity development and enable a field level interface with the community for mutual enrichment. As part of this, the NITI Aayog seeks to deepen and extend its institutional capacity through networking and partnerships with reputed knowledge & research institutions to create an ecosystem of evidence-based policy research. This network will enable efficient knowledge sharing and information exchange among all partners to fulfil their role in transformative policy reform so as to achieve sustainable

and more inclusive development in line with Sustainable Development Goals as well as the 15-year Vision, 7 years Strategy and 3 years Action Plan being developed by the NITI Aayog.

Sources:

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=163340>

<http://pib.nic.in/newsite/mbErel.aspx?relid=157488>

4. Which of the following statements is/are correct with respect to the Deen Dayal SPARSH Yojana?

- (1) It has been launched by the Ministry of Social Justice and Empowerment
- (2) It is for the empowerment of the blind for easy accessibility and 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

Answer: (d)

Explanation:

Both the statements are incorrect.

The Deen Dayal SPARSH Yojana is a Pan India scholarship program for school children for Promotion of Aptitude & Research in Stamps as a Hobby (school children).

It has been launched by the Department of Posts (Ministry of Communications).

Thus, statement 1 is incorrect.

Under the scheme, it is proposed to award 920 scholarships to students pursuing Philately as a hobby. **Thus, statement 2 is incorrect.** Every Postal Circle will select a maximum of 40 scholarships representing 10 students each from Standard VI, VII, VIII & IX. The

amount of Scholarship will be Rs. 6000/- per annum @ Rs. 500/- per month.

Source:

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=173212>

5. With reference to 'Operation Greens', which of the following statements is/are correct?

- (1) It has been launched by the Ministry of Agriculture and Farmers' Welfare.
- (2) It aims to stabilize the supply of Tomato, Onion and Potato (TOP) crops and to ensure round the year availability of TOP crops throughout the country.
- (3) It also aims to increase food processing capacities and value addition in TOP value chain

Select the correct answer using the code given below:

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

Answer: (c)

Explanation:

Statement (1) is incorrect.

Operation Greens was announced in the Budget speech of 2018-19. Accordingly, the **Ministry of Food Processing Industries** issued guidelines for Operation Greens.

Statements (2) and (3) are correct.

The National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED) will be the Nodal Agency to implement price stabilisation measures. Major objectives of "Operation Greens" are as under:

- Enhancing value realisation of TOP farmers by targeted interventions to strengthen TOP production clusters and their FPOs, and

linking/connecting them with the market.

- Price stabilisation for producers and consumers by proper production planning in the TOP clusters and introduction of dual use varieties.
- Reduction in post-harvest losses by creation of farm gate infrastructure, development of suitable agro-logistics, creation of appropriate storage capacity linking consumption centres.
- Increase in food processing capacities and value addition in TOP value chain with firm linkages with production clusters.
- Setting up of a market intelligence network to collect and collate real time data on demand and supply and price of TOP crops.

Source:

<http://mofpi.nic.in/Schemes/operation-greens>

6. With reference to the 'Rajya Sabha', which of the following statements is/are correct?

- (1) It has a term of six years.
- (2) The Fourth Schedule to the Indian Constitution deals with the allocation of seats in the Rajya Sabha.
- (3) The Indian Constitution provides for the reservation of seats for the Scheduled Castes (SCs) and the Scheduled Tribes (STs) in the Rajya Sabha on the basis of population ratios.

Select the correct answer using the code given below:

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

Answer: (b)

Explanation:

Statement 1 is incorrect.

The Rajya Sabha is a permanent body and not subject to dissolution. However, one-third of its members retire every second year.

Statement 2 is correct.

The Fourth Schedule to the Indian Constitution deals with the allocation of seats in the Rajya Sabha to the States and Union Territories.

Statement 3 is incorrect.

The Constitution provides for the reservation of seats for Scheduled Castes and Scheduled Tribes in the **Lok Sabha** on the basis of population ratios.

7. When a proclamation of emergency is issued by the President under Article 352 of the Constitution of India, then which of the following statements is/are correct?

- (a) The Fundamental Rights are automatically suspended.
- (b) The President can proclaim a national emergency only after receiving a recommendation from the Council of Ministers.
- (c) The freedoms under Article 19 are automatically suspended and other Fundamental Rights, except those under Articles 20 and 21, can be suspended by an order of the President.
- (d) The declaration of national emergency is immune from judicial review.

Answer: (c)

Explanation:

The President can proclaim a national emergency only after receiving a written recommendation from the Cabinet and not from the Council of Ministers. **Thus, the option b is incorrect.**

In the Minerva Mills case (1980), the Supreme Court held that the proclamation of a national emergency

can be challenged in a court. **Thus, option d is correct.**

When a proclamation of emergency is issued by the President under Article 352, the freedoms under Article 19 are automatically suspended and other Fundamental Rights, except those under Articles 20 and 21, can be suspended by an order of the President.

Hence, option c is correct and option d is incorrect.

8. Who among the following are members of the Committee recommending appointments of the Chairperson and members of the National Human Rights Commission (NHRC)?

- (1) The Prime Minister
- (2) The Home Minister
- (3) The Leader of the Opposition in the Lok Sabha.
- (4) The Leader of the Opposition in the Rajya Sabha
- (5) The Speaker of the Lok Sabha
- (6) The Deputy Chairman of the Rajya Sabha

Select the correct answer using the code given below:

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

Answer: (d)

Explanation:

The National Human Rights Commission (NHRC) of India is an autonomous public body constituted on 12 October 1993 under the Protection of Human Rights Ordinance of 28 September 1993. It was given a statutory basis by the Protection of Human Rights Act, 1993 (TPHRA). The NHRC is the **National Human Rights Commission of India**, responsible for the protection and promotion of human rights, defined

by the Act as "rights relating to life, liberty, equality and dignity of the individual guaranteed by the Constitution or embodied in the International Covenants".

Section 2 Sections 3 and 4 of the TPHRA lay down the rules for appointment to the NHRC. The Chairperson and members of the NHRC are appointed by the President of India, on the recommendation of a Committee consisting of:

- The Prime Minister (Chairperson)
- The Home Minister
- The Leader of the Opposition in the Lok Sabha
- The Leader of the Opposition in the Rajya Sabha
- The Speaker of the Lok Sabha
- The Deputy Chairman of the Rajya Sabha

9. Which of the following statement correctly defines the term '*Panchayatan*'?

- (a) An ancient assembly of village elders popularly known as *panch*.
- (b) An administrative setup consisting of at least five hierarchies.
- (c) A style of temple construction.
- (d) A religious sect devoted to the worship of '*panchabhootas*'.

Answer: (c)

Explanation:

Panchayatan refers to a style of temple construction where the main shrine is built on a rectangular plinth with four smaller subsidiary shrines at the four corners (making it a total number of five shrines), hence the name, Panchayatan. An ancient assembly of village elders popularly known as **Sabha**.

10. With reference to the Elephanta caves, which of the following statements is/are correct?

- (1) These caves are famous for the image of Maheshmurti showing Shiva with Bodhisattvas Padmapani and Vajrapani on its sides.
- (2) The caves have only Shaivite images and architecture.
- (3) The sculpture of Ravana shaking Mount Kailash forms a distinct feature of the caves.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1, 2 and 3
- (d) None of the above

Answer: (d)

Explanation:

Statement 1 is incorrect.

In the Elephanta cave, the image of Maheshmurti is present showing Shiva with Uma and Bhairav on its sides.

Statement 2 is incorrect.

The caves have both Shaivite and Buddhist architecture

Statement 3 is incorrect.

The sculpture of Ravana shaking mount Kailash is a part of Ellora caves and not Elephanta caves

11. Consider the following statements about the Price Stabilisation Fund:

- (1) It is used for stabilization of prices for onion and potato only.
- (2) It is under the Ministry of Consumer Affairs, Food & Public Distribution.
- (3) It is a Centrally Sponsored Scheme.

Which of the statements given above is/are correct?

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

(c) 2 and 3 only

(d) 1, 2 and 3

Answer: (b)

Explanation:

Statement 1 is incorrect.

The Price Stabilization Fund (PSF) was set up in 2014-15 under the Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) to help regulate the price volatility of important agricultural commodities like onion, potatoes and pulses.

Statement 2 is correct.

The Price Stabilization Fund scheme was transferred from Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) to the Department of Consumer Affairs (DOCA) under the Ministry of Consumer Affairs, Food & Public Distribution w.e.f. 1st April, 2016.

Statement 3 is incorrect.

Price Stabilisation Fund is a central sector scheme.

Difference between Central sector scheme and Centrally Sponsored Scheme

Central sector schemes are 100% funded by the Union government and implemented by the Central Government machinery. Central sector schemes are mainly formulated on subjects from the Union List. In addition, the Central Ministries also implement some schemes directly in States/UTs which are called Central Sector Schemes but resources under these Schemes are not generally transferred to States.

Under **Centrally Sponsored Scheme (CSS)** a certain percentage of the funding is borne by the States in the ratio of 50:50, 70:30, 75:25 or 90:10 and the implementation is by the State Governments. Centrally Sponsored Schemes are formulated in subjects from the State List to encourage States to prioritise in areas that require more attention. Funds are routed either through Consolidated Fund of States and/or are transferred directly to State/District Level Autonomous Bodies/Implementing Agencies.

12. With reference to the National Commission on Scheduled Castes, which of the following statements is/are correct?

- (1) The Commission has to investigate all matters relating to the constitutional and other legal safeguards to Anglo-Indian Community.
- (2) The Commission can demand any public record from any court or office while investigating into any complaint.

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

Answer: (c)

Explanation:

Statement 1 is correct.

The National Commission on Scheduled Caste (NCSC) has to investigate all matters relating to the constitutional and other legal safeguards for **the Anglo-Indian Community** and report to the President upon their working.

Till recently the NCSC had the power to investigate all matters relating to the constitutional and other legal safeguards for the **Other Backward Castes (OBCs)** also. But, in August 2018 President Ram Nath Kovind gave his assent to the Constitution (One Hundred Twenty-third Amendment) Bill, 2018 giving constitutional status to the **National Commission for Backward Classes (NCBC)**. The Act seeks to remove the power of the NCSC to examine matters related to backward classes and entrust these powers to the NCBC.

Statement 2 is correct.

The Commission, while investigating any matter or inquiring into any complaint, has all the powers of a civil court trying a suit and in particular in respect of the following matters:

- (a) summoning and enforcing the attendance of any person from any part of India and examining him on oath;
- (b) requiring the discovery and production of any document;
- (c) receiving evidence on affidavits;
- (d) requisitioning (demanding) any public record from any court or office;
- (e) issuing summons for the examination of witnesses and documents; and
- (f) any other matter which the President may determine.

13. Which of the following pairs is/are correctly matched?

	Initiative/ Scheme		Ministry
1.	Swachh Survekshan	:	Ministry of Drinking Water and Sanitation
2.	Ujjwala	:	Ministry of Power
3.	Suvidha	:	Ministry of Chemicals and Fertilizers

Select the correct answer using the code given below:

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

Answer: (c)

Explanation:

Pair 1 is incorrect.

Swachh Survekshan is under the Ministry of Housing and Urban Affairs.

Pair 2 is incorrect.

Ujjwala is an initiative under the Ministry of Women and Child Development. It is a Comprehensive Scheme for Prevention of trafficking and Rescue, Rehabilitation and Reintegration of Victims of Trafficking and Commercial Sexual Exploitation.

Pair 3 is correct.

Suvidha scheme will ensure Oxo-biodegradable Sanitary Napkins for women. This scheme is under the Pradhan Mantri Bhartiya Janaushadhi Pariyojana, under the Ministry of Chemicals and Fertilisers.

14. Which of the following is **not** chaired by the Chairperson of NITI Aayog?

- (a) Cabinet Committee on Economic Affairs
- (b) National Integration Council
- (c) National Board for Wildlife

- (d) National Tiger Conservation Authority

Answer: (d)

Explanation:

The Prime Minister of India is the Chairperson of NITI Aayog. He is also the Chairperson of Cabinet Committee on Economic Affairs, National Integration Council, National Board for Wildlife among others.

However, the Chairperson of National Tiger Conservation Authority is the Minister for Environment and Forest.

15. Consider the following statements about the composition, powers and appointments related to the Central Administrative Tribunal (CAT):

- (1) The Chairman and members are appointed by a collegium consisting of senior Supreme Court judges headed by the Chief Justice of India.
- (2) The members are drawn from both judicial and administrative stream.
- (3) CAT orders and decrees are final, and no provision of appeal lies whatsoever.

Which of the statements given above is/are correct?

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

Answer: (b)

Explanation:

The enactment of Administrative Tribunals Act in 1985 opened a new chapter in the sphere of administering justice to the aggrieved government servants. Administrative Tribunals Act under Article 323-A of the Constitution, empowers Central Government to set-up by an Act of Parliament, Administrative

Tribunals for adjudication of disputes and complaints with respect to recruitment and conditions of service of persons appointed to the public service and posts in connection with the affairs of the Union and the States.

Statement (1) is incorrect.

In pursuance of the provisions contained in the Administrative Tribunals Act, 1985, the Administrative Tribunals set-up under it exercise original jurisdiction in respect of service matters of employees covered by it.

The CAT consists of a Chairman and other members. They are appointed by the President.

Statement (2) is correct.

The members of the CAT are drawn from judiciary as well as administration.

Statement (3) is incorrect.

As a result of the judgement of the Supreme Court, the appeals against the orders of an Administrative Tribunal shall lie before the Division Bench of the concerned High Court.

16. Consider the following statements about a state in India:

- (1) It shares its border with three countries.
- (2) It is also known as Orchid State of India.
- (3) Nyishi is one of the major tribes of this state.

Which of the Indian State has been described in the statements given above?

- (a) Nagaland
- (b) Himachal Pradesh
- (c) Sikkim
- (d) Arunachal Pradesh

Answer: (d)

Explanation:

The given statements are related to the State of Arunachal Pradesh.

Arunachal Pradesh has international border with Bhutan, China and Myanmar. It is also known as the Orchid State of India or the Paradise of the Botanists.

The Nyishi, one of the major tribes of Arunachal Pradesh, support themselves with a slash-and-burn agriculture. Their religion involves belief in spirits associated with nature.

17. Consider the following statements with reference to Gotipua dance:

- (1) Gotipua dance is a traditional dance form from Odisha.
- (2) Only women participate in this dance.
- (3) The Gotipua dance has been declared as Intangible World Heritage by UNESCO.

Which of the statements given above is/are correct?

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

Answer: (a)

Explanation:

Statement 1 is correct.

Gotipua is a traditional dance form in the state of Odisha, India, and the precursor of Odissi classical dance. It has been performed in Odisha for centuries by young boys, who dress as women to praise Jagannath and Krishna.

Statement 2 is incorrect.

The dance is executed by a group of boys who perform acrobatic figures inspired by the life of Radha and Krishna. The boys begin to learn the dance at an early age until adolescence, when their androgynous appearance changes. In the Odia language Gotipua, means "single boy". Raghurajpur, Odisha (near Puri) is an historic village known for its Gotipua dance troupes.

Statement (3) is incorrect as the Gotipua dance has not been declared as Intangible World Heritage by the UNESCO.

18. Consider the following statements about the Lucknow Session of the Indian National Congress:

- (1) It was presided over by Ambika Charan Majumdar.
- (2) It witnessed the admission of the extremists back into the Congress.
- (3) While the Congress accepted the Muslim League's position on Separate Electorates, the Muslim League did not agree to partner with the Congress to present joint constitutional demands to the Government.

Which of the statements given above is/are correct?

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

Answer: (a)

Explanation:

Statement 1 is correct.

Lucknow Session of the Indian National Congress was presided over by a Moderate, Ambika Charan Majumdar

Statement 2 is correct.

The extremists were admitted back into the Congress at the Lucknow Session post Surat Split.

Statement 3 is incorrect.

While the Muslim League agreed to present joint constitutional demands with the Congress to the government, the Congress accepted the Muslim League position on separate electorates. This implied that the Congress and the League came together as separate political entities. This was a major

landmark in the evolution of Two-Nation theory by the Muslim League.

19. According to the law of diminishing marginal utility, as the amount of a good/service consumed increases, the marginal utility of that good tends to

- (a) Improve
- (b) Diminish
- (c) Remain constant
- (d) First diminish and then improve

Answer: (b)

Explanation:

In economics, the law of diminishing marginal utility states that the marginal utility of a good or service declines as its available supply increases. Economic actors devote each successive unit of the good or service towards less and less valued ends.

When we get more and more units of a commodity, the intensity of our desire for that commodity tends to diminish. The law of diminishing marginal utility also explains the same thing. It means that 'as more and more units of a commodity are consumed, marginal utility derived from each successive unit goes on diminishing.'

20. e-Shakti initiative was recently launched by NABARD. What is e-Shakti initiative?

- (a) It is a zero-interest credit programme to promote rural women entrepreneurship.
- (b) It is a programme for direct subsidy transfer to dairy farmers.
- (c) It is an initiative to promote transfer of land titles to women tillers.
- (d) It is an initiative for digitisation of Self-Help Groups (SHGs).

Answer: (d)

Explanation:

e-Shakti is a pilot project of National Bank for Agriculture and Rural Development (NABARD) for digitisation of Self-Help Groups (SHGs). It was initiated to address certain concerns like improving the quality of book keeping of SHGs and to enable banks to take informed credit decisions about the group through a Management Information System (MIS). The project covers 25 districts and 1,30,176 SHGs have been digitised as on 31st March, 2017. As per information compiled by NABARD, about 69,696 SHGs of the SHGs which have been digitised are credit linked as on 31st July, 2017. No SHG has been de-recognised on account of, or, after digitisation. The digitisation project does not impact the profit/loss position of the SHGs.

21. Which of the following countries has recently formally notified its intention to withdraw from the International Criminal Court?
- (a) Namibia
 - (b) Serbia
 - (c) Philippines
 - (d) Norway

Answer: (c)

Explanation:

President Rodrigo Duterte is pulling the Philippines out of the International Criminal Court (ICC) after a court prosecutor announced that a preliminary examination was underway into an accusation that the President and top officials had committed crimes against humanity during a deadly war on drugs. The International Criminal Court (ICC), governed by the Rome Statute, is the World' first permanent, treaty-based, international criminal court. The ICC investigates and, where warranted, tries individuals charged with the gravest

crimes of concern to the international community: genocide, war crimes, crimes against humanity and the crime of aggression. The ICC is an independent international organisation, and is not part of the United Nations system. India is not a member of the ICC.

22. Which of the following statements about the Association of Southeast Asian Nations (ASEAN) is **not** correct?
- (a) India is a founder member of the ASEAN.
 - (b) Its objectives were primarily to accelerate 'economic and social progress and cultural development'.
 - (c) It is committed primarily to promote regional peace and stability.
 - (d) It encourages negotiation over conflict in the region.

Answer: (a)

Explanation:

The Association of Southeast Asian Nations is a regional intergovernmental organization comprising ten countries in Southeast Asia, which promotes inter-governmental cooperation and facilitates economic, political, security, military, educational, and socio-cultural integration among its members and other countries in Asia.

There are 5 founding members of ASEAN: Indonesia, Malaysia, Philippines, Singapore and Thailand. Other members include Brunei Darussalam, Vietnam, Laos, Myanmar and Cambodia. India is not a founding member of ASEAN.

23. Consider the following statements:

- (1) Bioaccumulation refers to the accumulation of substances, such

as pesticides or other chemicals in an organism.

- (2) Biomagnification refers to an increase in the concentration of a chemically stable substance along a food chain.
- (3) Minamata Bay in Japan is famous for ill-effects relating to Mercury biomagnification.

Which of the statements given above is/are correct?

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

Answer: (d)

Explanation:

Bioaccumulation is the accumulation of substances, such as pesticides, or other chemicals in an organism. Bioaccumulation occurs when an organism absorbs a substance at a rate faster than that at which the substance is lost by catabolism and excretion. Thus, the longer the biological half-life of a toxic substance, the greater the risk of chronic poisoning, even if environmental levels of the toxin are not very high. Bioaccumulation, for example in fish, can be predicted by models. Hypotheses for molecular size cut-off criteria for use as bioaccumulation potential indicators are not supported by data. Biotransformation can strongly modify bioaccumulation of chemicals in an organism.

Bioconcentration is a related but more specific term, referring to uptake and accumulation of a substance from water alone. By contrast, bioaccumulation refers to uptake from all sources combined (e.g. water, food, air, etc.)

Biomagnification, also known as **bioamplification** or **biological magnification**, is the increasing concentration of a substance, such as a toxic chemical, in the tissues of

organisms at successively higher levels in a food chain.

Minamata disease is a neurological syndrome caused by severe mercury poisoning. Minamata disease was first discovered in Minamata city in Kumamoto prefecture, Japan, in 1956. It was caused by the release of methylmercury in the industrial wastewater from the Chisso Corporation's chemical factory, which continued from 1932 to 1968. This highly toxic chemical bioaccumulated in shellfish and fish in Minamata Bay and the Shiranui Sea, which, when eaten by the local populace, resulted in mercury poisoning.

24. Which of the following statements regarding Repo rate is correct?

- (a) It is the rate at which the RBI lends money to the Commercial Banks.
- (b) It is the rate at which the RBI borrows money from the Commercial Banks.
- (c) It is the rate at which the Commercial Banks keep deposits with the RBI.
- (d) Both (b) and (c).

Answer: (a)

Explanation:

Repo rate is the rate at which the RBI lends money to the Commercial Banks. In the event of inflation, central banks increase repo rate as this acts as a disincentive for banks to borrow from the central bank. This ultimately reduces the money supply in the economy and thus helps in arresting inflation.

25. Which of the following organizations releases the Consumer Confidence Survey?

- (a) The Ministry of Consumer Affairs, Food and Public distribution.

- (b) The Reserve Bank of India.
- (c) The United Nations Conference on Trade and Development.
- (d) The World Trade Organisation.

Answer: (b)

Explanation:

The Reserve Bank of India releases the Consumer Confidence Survey. Similarly, Consumer Confidence Index (CCI) is released by Conference Board Global Consumer Confidence Survey, in collaboration with Nielsen. India topped in CCI in 2018.

26. Which of the following pairs is/are correctly matched?

	Disputed area		Claimant
1.	Golan Heights	:	Israel and Syria
2.	Kuril Islands	:	Japan and China
3.	Falkland Islands	:	Argentina & UK

Select the correct answer using the code given below:

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

Answer: (a)

Explanation:

<u>Disputed areas</u>	<u>Claimants</u>
1. Golan Heights:	Israel and Syria
2. Kuril Islands:	Japan and Russia
3. Falkland Islands:	Argentina & UK

27. Which of the following options contains the group of species that are critically endangered?

- (a) Malabar Civet, Sociable Lapwing, Olive Ridley Turtle, Gharial
- (b) Gharial, Malabar Civet, Great Indian Bustard, Baer's Pochard

- (c) Baer's Pochard, Malabar Civet, False Gharial, African Wild Ass
- (d) Malabar Civet, Sociable Lapwing, Olive Ridley Turtle, False Gharial

Answer: (b)

Explanation:

Gharial, Malabar Civet, Great Indian Bustard, Baer's Pochard, Sociable Lapwing, African Wild Ass are Critically Endangered Species whereas Olive Ridley Turtle and False Gharial are Vulnerable Species.

28. Consider the following features about a National Park in India:

- (1) Ken River runs through it.
- (2) It is one of the Tiger Reserves of India.
- (3) The Ken-Betwa River Linking Project may inundate 400 hectares of this National Park.

The features given above are most apt for which of the following National Parks?

- (a) Panna National Park
- (b) Kanha National Park
- (c) Satpura National Park
- (d) Pench National Park

Answer: (a)

Explanation:

Panna National Park is a national park located in Panna and Chhatarpur districts of Madhya Pradesh in India. It was declared in 1994 as the twenty second Tiger reserve of India and the fifth in Madhya Pradesh. It was designated as Biosphere Reserve on 25 August 2011. Ken River runs through Panna National Park. The Ken Betwa River Linking Project may inundate 400 hectares of this National Park.

29. Recently, 'Sharm El-Sheikh' Declaration (2018), seen in the news

was adopted for which of the following?

- (a) Petroleum Exports
- (b) Women Empowerment
- (c) Biodiversity Initiatives
- (d) Ending Malnutrition among children below 5 years

Answer: (c)

Explanation:

The UN Biodiversity Conference was held in November 2018, in Sharm El-Sheikh, Egypt, under the theme “Investing in biodiversity for people and planet.” It was attended by participants representing parties, other governments, international and non-governmental organizations, indigenous peoples and local communities, academia, and the private sector.

30. Which of the following country does **not** have a border with the Mediterranean Sea?

- (a) Syria
- (b) Morocco
- (c) Tunisia
- (d) Portugal

Answer: (d)

Explanation:

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; Malta and Cyprus are island countries in the sea. Portugal is a coastal nation in southwestern Europe, located at the western end of the Iberian Peninsula, bordering Spain. The Atlantic Ocean lies to the west and south of Portugal.

31. Consider the following statements regarding ‘Digital Detox’ app:

- (1) It is an app developed by the Central Pollution Control Board.
- (2) It aims to educate about air detoxing methods, particularly in Delhi/NCR.

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

Answer: (d)

Explanation:

Both the given statements are incorrect.

The Digital Detox app is developed by Service for Healthy Use of Technology (SHUT) clinic under National Institute of Mental Health and Neuro Sciences (NIMHANS). It aims to bring behavioural changes in order to cure mobile addiction.

32. With reference to the Committee on Government Assurances, consider the following statements:

- (1) It examines the assurances, promises and undertakings given by Ministers on the floor of the House.
- (2) It is present only in the Lower House of the Parliament.

Which of the statements given above is/are correct?

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

Answer: (a)

Explanation:

Statement 1 is correct.

The Committee on Government Assurances examines the assurances, promises and undertakings given by the Ministers from time to time on the floor of

the House and reports on the extent to which they have been carried through.

Statement 2 is incorrect.

The Committee on Government Assurances is present in both the Houses. In the Lok Sabha, it consists of 15 members and in the Rajya Sabha, it consists of 10 members.

33. Which among the following statements is/are correct regarding the “Rajaji Formula”?

- (1) In 1944, Gandhi and M A Jinnah held talks on the basis of the Rajaji Formula.
- (2) Jinnah accepted the formula as his demand of a separate Pakistan nation was implicit in the Rajaji Formula.

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

Answer: (a)

Explanation: The C Rajagopalachari formula i.e Rajaji Formula consisted of following suggestions:

- i. The League was to endorse the Indian demand for independence and to co-operate with the Congress in formation of Provisional Interim Government for a transitional period.
- ii. At the end of the War, a Commission would be appointed to demarcate the districts having a Muslim population in absolute majority and in those areas plebiscite to be conducted on all inhabitants (including the non-Muslims) on basis of adult suffrage.
- iii. All parties would be allowed to express their stance on the partition and their views before the plebiscite.
- iv. In the event of separation, a mutual agreement would be entered into for

safeguarding essential matters such as—defence, communication and commerce and for other essential services.

- v. The transfer of population, if any would be absolutely on a voluntary basis.
- vi. The terms of the binding will be applicable only in case of full transfer of power by Britain to Government of India.

Statement 1 is correct. In 1944, Gandhi and M A Jinnah held talks on the basis of the Rajaji Formula. The talks were a failure as Jinnah had objections to the proposal.

Jinnah's objections:

1. He wanted the INC to accept the Two Nation Theory.
2. He did not want the entire population of the Muslim majority areas to vote on the plebiscite, but only the Muslim population in those areas.
3. He was also against the idea of a common centre. Also, Jinnah wanted separate dominions be created before the English left India.

Hence, statement 2 is incorrect.

34. With reference to Spirulina, consider the following statements:

- (1) It is a superfood made from algae.
- (2) It contains a specific protein which has been found to relax arteries.
- (3) It is widely used in supplements and smoothies for treating a host of medical conditions.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 1, 2 and 3
- (d) None of the above

Answer: (c)

Explanation:

Statement 1 is correct: Researchers have identified Spirulina, a "superfood" made from algae, that could help to reduce blood pressure.

Statement 2 is correct: The superfood, described as the "most complete food source in the world", contains a specific protein which was found to relax arteries in animals.

Statement 3 is correct: Spirulina contains protein, iron, potassium, magnesium, and many other minerals and is widely used in supplements and smoothies for a host of conditions including weight loss, hay fever, and diabetes.

Value Addition:

Spirulina is a type of blue-green algae that grows in freshwater ponds and lakes. Researchers have also shown how spirulina can help lower the blood pressure. A 2016 trial of 40 overweight people who had high blood pressure showed spirulina to be an effective blood pressure-lowering ingredient.

35. Recently, 'INS Kohassa' was seen in the news. Consider the following statements with respect to 'INS Kohassa':

- (1) It is considered as India's new air base, located in the Andaman and Nicobar Islands.
- (2) It will monitor key sea lanes of communication and strategic choke points.

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

Answer: (c)

Explanation:

Statement 1 is correct.

'INS Kohassa' will be India's new air base to be located in Andaman and Nicobar Islands. This will be India's fourth air base and the third naval air facility in the archipelago, which are closer to South-East Asia than to the Indian mainland.

Statement 2 is correct.

It will monitor key sea lanes of communication and strategic choke points. It will initially have a runway of about 3000 ft. which will in phases be extended to 9000 ft. to support all kinds of aircraft including fighter jets.

36. Consider the following statements regarding the DNA Technology (Use and Application) Regulation Bill, 2018:

- (1) It regulates the use of DNA technology for establishing the identity of persons.
- (2) Written consent of individuals is mandatory in order to collect DNA samples from them.
- (3) It provides for the removal of DNA profiles of suspects on filing of a police report or court order.

Which of the statements given above is/are correct?

- (a) 1 and 3 only
- (b) 2 only
- (c) 1, 2 and 3
- (d) None of the above

Answer: (a)

Explanation:

Statement 1 is correct.

The DNA Technology (Use and Application) Regulation Bill, 2018 regulates the use of DNA technology for establishing the identity of persons in respect of matters listed in a Schedule. These include criminal matters (such as offences under the Indian Penal Code, 1860), and civil matters such as parentage disputes, emigration or

immigration, and transplantation of human organs. The Bill establishes a National DNA Data Bank and Regional DNA Data Banks. It also establishes a DNA Regulatory Board. Every DNA laboratory that analyses a DNA sample to establish the identity of an individual, has to be accredited by the Board.

Statement 2 is incorrect.

Written consent by individuals is required to collect DNA samples from them. Consent is not required for offences with punishment of more than seven years of imprisonment or death.

Statement 3 is correct.

The Bill provides for the removal of DNA profiles of suspects on filing of a police report or court order, and of undertrials on the basis of a court order. Profiles in the crime scene and missing persons' index will be removed on a written request.

- 37.** Recently, the RBI has appointed Nandan Nilekani Committee for
- (a) Reviewing the Monetary Policy
 - (b) Encouraging Digital Payments
 - (c) Assessment of Aadhaar-Bank accounts linkages
 - (d) Using state of art technology for simpler FOREX Management

Answer: (b)

Explanation:

To further encourage digital payments, the Reserve Bank of India (RBI) has appointed former UIDAI (Unique Identification Authority of India) chief Nandan Nilekani as the chairman of a five-member high-level Committee. The Committee has been asked to review the existing status of digitization of payments, identify gaps in the ecosystem and suggest ways to plug them. According to its terms of reference, the panel has to suggest a medium-term strategy for deepening digital payments,

and measures to strengthen safety and security. The panel has also been tasked with the responsibility of increasing customer confidence and trust while they access financial services through digital modes.

38. With reference to 'National Clean Energy Fund', consider the following statements:

- (1) It is created in the Consolidated Fund of India.
- (2) It funds research and innovative projects in clean energy technologies.
- (3) Funding can be obtained by both public sector and private sector entities.

Which of the statements given above is/are correct?

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

Answer: (c)

Explanation:

Statement 1 is incorrect.

The Cabinet Committee on Economic Affairs (CCEA) had approved constitution of a 'National Clean Energy Fund' (NCEF) in the Public Account of India and not in the Consolidated Fund of India.

Statements 2 and 3 are correct.

The National Clean Energy Fund will be used for funding research and innovative projects in clean energy technologies. Any project/scheme for innovative methods to adopt to clean energy technology and research & development shall be eligible for funding under the NCEF. Such projects may be:

- (a) Sponsored by a Ministry/Department of the Government; and
- (b) Submitted by individual/ consortium of organizations in the government/public

sector/ private sector in the form of loan or viability gap funding, as the Inter-Ministerial Group (IMG) deems fit on case to case basis. Government assistance under the NCEF shall in no case exceed 40% of the total project cost.

39. Which of the following statements is/are correct with respect to 'Indus Valley Civilisation'?

- (1) Gold, copper, silver and iron were the known metals during Indus Valley Civilization.
- (2) The script of Indus Valley Civilisation was first deciphered by James Prinsep.
- (3) Indus Valley Civilization had multi-storied houses.

Select the correct answer using the code given below:

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

Answer: (b)

Explanation:

Statement 3 is correct.

Indus valley people did not possess great palaces and temples rather the civilization was noted for its cities built of brick, roadside drainage system and multi-storied houses.

Statement 1 is incorrect.

Gold, copper, silver were the known metals. Iron was not known during Indus Valley Civilization.

Statement 2 is incorrect.

The script of Indus Valley Civilisation is undeciphered. Asokan inscriptions were first deciphered by James Prinsep.

40. Consider the following statements regarding the Indian National Social Conference:

- (1) It was founded by Gopal Krishan Gokhale.
- (2) It advocated inter caste marriage and opposed polygamy.
- (3) Its first session was held in 1885 along with the Indian National Congress.

Which of the statements given above is/are correct?

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

Answer: (b)

Explanation:

Statement 1 is incorrect.

Indian (National) Social Conference was founded by Mahadev Govind Ranade in 1887.

Statement 2 is correct.

The aim of Conference was to discuss social evils and ways to remedy them. It ran as a social reform wing adjacent to the Indian National Congress. At its meetings, the members had discussions about social issues and advocated inter caste marriage, opposed polygamy and kulinism.

Statement 3 is incorrect.

Its first session was held in Madras in December 1887.

41. With reference to the Vaikom Satyagraha, consider the following statements:

- (1) It was a peasant rebellion against landlords and British authorities.
- (2) It was launched in Kerala by Sri Narayana Guru.

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

Answer: (d)

Explanation:

Statement 1 is incorrect. Vaikom Satyagraha (1924–25) was a satyagraha (movement) in Travancore, India (now part of Kerala) against untouchability in Hindu society. The movement was centred at the Shiva temple at Vaikom, near Kottayam. The Satyagraha aimed at securing freedom of movement for all sections of society through the public roads leading to the Sri Mahadevar Temple at Vaikom.

Statement 2 is incorrect. It was triggered in the Kakinada Congress meeting in 1923, T.K. Madhavan presented a report on the discrimination in Kerala and the plights of backward Hindus. The meeting decided to promote movements against untouchability. A committee was formed with members including T.K. Madhavan, K Kelappan, K Velaudha Menon, T.R. Krishnaswami Iyer and Kuroor Neelakandan Namboothiri. The chairman of the committee was K Kelappan. Gandhiji had supported the movement.

42. With reference to Bhabhatron, developed by the Bhabha Atomic Research Centre, which of the following is correct?

- (a) It is a facility for making Fast Breeder Reactors which could lead to peaceful uses of nuclear energy.
- (b) It is used in the treatment of cancer.
- (c) It is developed for determination of age of fossil fuels.
- (d) It is a newly discovered form of matter which can help in study of expanding universe.

Answer: (b)

Explanation:

Bhabha Atomic Research Centre has successfully developed the technology for Radiotherapy Simulator. Bhabhatron, the indigenous telecobalt machine, is one of the successful products developed by Bhabha Atomic Research Centre, Mumbai for cancer treatment.

Value Addition:

- (a) 500 MWe Prototype Fast Breeder Reactor (PFBR) facility at Kalpakkam, still hasn't reached first criticality, though physical construction commenced in 2004 and was complete by 2015. Expectedly, engineering problems were encountered by BHAVINI, the special purpose vehicle set up by the Department of Atomic Energy (DAE) to implement the PFBR project.
- (c) Scientists combine several well-tested techniques to find out the ages of fossils. The most important are Relative Dating, in which fossils and layers of rock are placed in order from older to younger, and Radiometric Dating, which allows the actual ages of certain types of rock to be calculated.
- (d) Antimatter gravity could explain Universe's expansion. Antimatter could exist in the voids between galaxy clusters and super-clusters.

43. Recently, HAMMER Spacecraft was in news. The spacecraft has certain ways of addressing an asteroid collision threat. In this context, which of the following ways is/are correct?

- (1) Hitting the asteroid, and then steering it off-course.
- (2) Detonating its on-board nuclear warhead to change the asteroid's course.

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

Answer: (c)

Explanation:

HAMMER (Hypervelocity Asteroid Mitigation Mission for Emergency Response vehicle), the deflector is nine metres tall and weighs more than 8000 kg. HAMMER can be used as a kinetic impactor (spacecraft at high speed to give the push). The spacecraft has two ways of dispatching an asteroid collision threat. **Statement 1 is correct.**

The first involves hitting the asteroid, and then steering it off-course so it doesn't end up hitting Earth.

Statement 2 is correct.

The second – and more dangerous – would see the HAMMER detonating its on-board nuclear warhead to change the asteroid's course.

44. Consider the following about the advisory jurisdiction of the Supreme Court (SC) under Article 143 of the Constitution:

- (1) Being a constitutional organ, the SC is bound to give advice when it is referred.
- (2) The SC being the highest court of Justice, legal advice tendered by it is legally binding on the President.

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

Answer: (d)

Explanation:

Both the given statements are incorrect.

Article 143 of the Constitution confers Advisory Jurisdiction to the Supreme

Court of India. This provision finds its origin in Section 213 of the Government of India Act, 1935, which conferred upon the Governor-General the discretion to pose questions of public importance to the Federal Court. Similarly, as per Article 143, the President has the power to address questions to the Supreme Court, which he deems important for public welfare. The Supreme Court "advises" the President by answering the query put before it. Till date, this mechanism has been put to use only twelve times. However, it is pertinent to note that this is not binding on the President, nor is it "law declared by the Supreme Court", hence not binding on subordinate courts.

45. Which of the following are the micronutrients which are essential for plant and crop growth?

- (1) Iron
- (2) Manganese
- (3) Boron
- (4) Calcium

Select the correct answer using the code given below:

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

Answer: (c)

Explanation:

There are 16 elements essential to the growth of crops and plants:

Supplied by air and water: Carbon, Hydrogen, Oxygen.

Macronutrients: Nitrogen, Phosphorous, Potassium.

Secondary Nutrients: Calcium, Magnesium, Sulphur.

Micronutrients: **Boron (B)**, Chlorine (Cl), Copper (Cu), **Iron (Fe)**, **Manganese (Mn)**, Molybdenum (Mo), and Zinc (Zn).

In relatively large amounts, the soil supplies nitrogen, phosphorus, potassium, **calcium, magnesium, and sulfur; these are often called the macronutrients.** In relatively small amounts, the soil supplies iron, manganese, boron, molybdenum, copper, zinc, chlorine, and cobalt, the so-called micronutrients.

46. Which of the following books from medieval India are treatises on Astronomy?

- (1) Aryabhatiya
- (2) Brahmasphuṭa-siddhanta
- (3) Siddhantashiromani.
- (4) Brihatsamhita.

Select the correct answer using the code given below:

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

Answer: (d)

Explanation:

Point 1 is correct.

Aryabhata (476–550 CE) was the first of the major mathematician-astronomers from the classical age of Indian mathematics and Indian astronomy. His works include the Aryabhatiya (499 CE, when he was 23 years old) and the Aryasiddhanta. In his book, Aryabhatiya, he suggested that the Earth was sphere, containing a circumference of 24,835 miles (39,967 km). Aryabhata also mentioned that reflected sunlight is the cause behind the shining of the moon.

Point 2 is correct.

The Brāhmasphuṭa-siddhānta is the main work of Brahmagupta. This text of mathematical astronomy contains significant mathematical content, including a good understanding of the role of zero, rules for manipulating both negative and positive numbers, a method

for computing square roots, methods of solving linear and quadratic equations, and rules for summing series, Brahmagupta's identity, and Brahmagupta's theorem.

Point 3 is correct.

Siddhānta Śhīromani is the major treatise of Indian mathematician Bhāskara II. He wrote the Siddhānta Śhīromani in 1150 when he was 36 years old. The work is composed in Sanskrit Language in 1450 verses. It has three parts viz Lilavati, Bijaganita and Ganitadhyaya and Goladhyaya. Ganitadhyaya and Goladhyaya of Siddhanta Shiromani are devoted to astronomy.

Point 4 is correct.

Varahamihira's Brihatsamhita of the sixth century AD is another pioneering work in the field of astronomy. His observation that the moon rotated around the earth and the earth rotated around the sun found recognition and later discoveries were based on this assertion.

47. With reference to 'Footloose Industries', which of the following statements is/are correct?

- (1) They can be located at wide variety of places.
- (2) They are dependent on a specific raw material.

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

Answer: (a)

Explanation:

Footloose industry is a general term for an industry that can be placed and located at any location without effect from factors such as resources or transport.

Statement 1 is correct.

The Footloose Industries can be located in a wide variety of places.

Statement 2 is incorrect.

They are not dependent on any specific raw material (unlike the early Iron and Steel industry that had to locate close to iron ore and coal etc). Hence they are located near transport routes and near the markets. Ex: Hi-Tech industry (information technology, softwares etc.)

48. Consider the following statements with respect to 'Thermosphere':

- (1) It contains charged ions which aid in wireless communications and broadcasting
- (2) International Space Station is stationed in this layer

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

Answer: (c)

Explanation:

The thermosphere lies between the exosphere and the mesosphere. "Thermo" means heat, and the temperature in this layer can reach up to 4,500 degrees Fahrenheit. If you were to hang out in the thermosphere, though, you would be very cold because there aren't enough gas molecules to transfer the heat to you. This also means there aren't enough molecules for sound waves to travel through.

Statement 1 is correct.

High-energy solar photons also tear electrons away from gas particles in the thermosphere, creating electrically-charged ions of atoms and molecules which aid in wireless communications and broadcasting.

Earth's ionosphere, composed of several regions of such ionized particles in the

atmosphere, overlaps with and shares the same space with the electrically neutral thermosphere.

Statement 2 is correct.

The thermosphere is home to the International Space Station as it orbits Earth. This is also where you'll find low Earth orbit satellites.

49. Consider the following statements:

- (1) This State has the second highest drought prone area after Rajasthan.
- (2) This State has a place which receives the third highest rainfall in India after Mawsynram and Cherrapunji.

Which of the State has been described in the statements given above?

- (a) Maharashtra
- (b) Tamil Nadu
- (c) Karnataka
- (d) Andhra Pradesh

Answer: (c)

Explanation:

Karnataka ranks second in the extent of drought prone area after Rajasthan in India on account of having large area on the leeward side of the Western Ghats. Agumbe and Hulikal in the Shimoga district of Karnataka are the places which receive next highest annual rainfall in India after Mawsynram and Cherrapunji.

50. Though coffee and tea both are cultivated on hill slopes, there is some difference between them regarding their cultivation. In this context, consider the following statements:

- (1) Tea plant is shade loving while for Coffee plant shade is not required
- (2) Tea plants are propagated from seeds and also from root-cuttings

but coffee is grown from stem cuttings only.

Which of the statements given above is/are correct?

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

Answer: (d)

Explanation:

Statement 1 is incorrect.

Direct sunlight is harmful for coffee plants; therefore, these are planted under shade of taller trees such as bananas. In Brazil, leguminous plants are used which not only provide shade but also enrich soil with nitrogen. Tea plant is shade loving too. This is not a difference in their cultivation.

Statement 2 is incorrect.

Tea plants are propagated from seeds and also from root-cuttings but Coffee is raised through Seedlings only.

51. Consider the following Bills with reference to the State Legislatures with bicameralism in India:

- (1) Ordinary Bills
- (2) Money Bills
- (3) Issue pertaining to the abolition of the State Legislative Council

In which of the Bills mentioned above, the deadlock/ disagreement between the two Houses of the State Legislature can be resolved through the mechanism of joint sitting?

- (a) 1 only
- (b) 2 only
- (c) 1 and 3 only
- (d) None of the above

Answer: (d)

Explanation:

There is no provision of joint sitting in case of deadlock between the two houses of the State Legislatures with

Bicameralism. As the Legislative Council is only a dilatory chamber or an advisory body and not a revising body like the Rajya Sabha; the legislative procedure in the states with bicameral legislature is dominated by the Legislative Assembly.

52. With reference to the “Bhima Koregaon Battle of 1818”, consider the following statements:

- (1) It was fought between the troops of Madhav Rao II and the East India Company.
- (2) The East India Company won the battle with the support of Mahar community.

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

Answer: (b)

Explanation:

Statement 1 is incorrect: It was fought between the troops of Peshwa Baji Rao II and East India Company in furtherance to the Third Anglo-Maratha battle.

Statement 2 is correct: Mahar community was once employed in the force of Shivaji but with the advent of Peshwas, Mahars being an untouchable caste were removed from their armed services. Thus they joined East India company and fought along with them against the Peshwas in the Bhima Koregaon Battle on 1 January 1818.

53. With reference to the “Central Bureau of Investigation (CBI)” consider the following statements:

- (1) It is a statutory body.
- (2) The office of the CBI is attached to the Ministry of Personnel, Public Grievances and Pensions.

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

Answer: (b)

Explanation:

Statement 1 is incorrect: The CBI is not a statutory body, yet it derives its power of investigation from the Delhi Special Police Establishment Act 1946. It was established on the recommendations of the Santhanam Committee.

Statement 2 is correct: The office of the CBI is attached to the Ministry of Personnel, Public Grievances and Pensions. The CBI director is appointed or removed by a collegium comprising of the Prime Minister, the Chief Justice of India or the Judge of the Supreme Court nominated by him and the Leader of the Opposition in the Lok Sabha.

54. Consider the following pairs:

	Tribes recently approved as Scheduled Tribes		State
1.	Tea	:	Assam
2.	Kani	:	Kerala
3.	Bonda Praja	:	Odisha

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

Answer: (d)

Explanation:

All pairs are correctly matched.

The Centre has approved **six tribes of Assam** as Scheduled Tribes - Koch-

Rajbongshis, 36 Tea Tribes, Tai Ahoms, Morans, Motoks and Chutiyas.

Kani tribe of Kerala worship the idol of Agastya muni where women are not allowed.

Bonda Praja tribes belong to Bonda hills, Odisha.

55. Consider the following pairs:

	Martial Art		State
1.	Velakali	:	Tamil Nadu
2.	Thang Ta	:	Uttarakhand
3.	Silambam	:	Karnataka

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

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None of the above

Answer: (d)

Explanation:

All pairs are incorrectly matched.

Martial Arts State

- 1. Velakali : Kerela
- 2. Thang Ta : Manipur
- 3. Silambam : Tamil Nadu

Velakali – Velakali is a spectacular martial dance is performed by men in some of the temples of southern Kerala. The dancers, clad in the traditional clothes and colourful headgear of the medieval Nair soldiers, engage in vigorous movements and dexterous sword play, to the accompaniment of an orchestra comprising the maddalam, ilathalam, kombu and kuzhal. Velakali originated in Ambalappuzha where Mathoor Panicker, chief of the Chempakasserri army, promoted it to boost the martial spirit of the people. The dance form is a regular feature of the annual festivities at the Ambalappuzha Sree Krishna temple in Alappuzha district.

Thang-ta – Thang-ta is a weapon-based Indian martial art created by the Meitei of

Manipur. In the Manipuri language, thang means sword and ta means spear, referring to the art's primary weapons. Thang Ta is also a popular form in Manipuri dance.

Silambam – Silambam is a weapon-based martial art of India, more specifically from Tamilakam (now Tamil Nadu region) in the Indian subcontinent, where it originated around 1000 BCE. This ancient fighting style is mentioned in Tamil Sangam literature 400 BCE.

56. Which of the following is a member of the United Nations Educational, Scientific and Cultural Organization (UNESCO)?
- (a) India
 - (b) United States of America
 - (c) Israel
 - (d) Liechtenstein

Answer: (a)

Explanation:

Three United Nations Educational, Scientific and Cultural Organization (UNESCO) member states are not United Nations (UN) member states: Cook Islands, Niue, and Palestine, while three UN member states (Israel, Liechtenstein, United States) are not UNESCO members.

57. Consider the following pairs:

	National Park		State
1.	Betla National Park	:	Bihar
2.	Sanjay Gandhi National Park	:	Uttarakhand
3.	Gorumura National Park	:	Assam

Which of the pairs given above is/are **not** correctly matched?

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

Answer: (d)

Explanation:

All pairs are incorrectly matched.

Betla National Park is a national park located on the Chhota Nagpur Plateau in the Latehar district of Jharkhand, India. The forest of the park have a vast range of vegetation consisting of sal and bamboo as the major components along with a number of medicinal plants. The North Koyal River and its tributaries flow through the northern portion of the park, producing grasslands.

Sanjay Gandhi National Park is an 87 km² (34 sq mi) protected area near Mumbai in Maharashtra State in India. It was formerly known as **Borivali National Park**. It is notable as one of the major national parks existing within a metropolis limit and is one of the most visited parks in the world.

The rich flora and fauna of Sanjay Gandhi National Park attracts more than 2 million visitors every year. Tourists also enjoy visiting the 2400-year-old Kanheri caves sculpted out of the rocky cliffs which lie within the park.

Gorumara National Park is a National Park in northern West Bengal, India. Located in the Dooars region of the Himalayan foothills, it is a medium-sized park with grasslands and forests. It is primarily known for its population of Indian rhinoceros. The park has been declared as the best among the protected areas in India by the Ministry of Environment and Forests for the year 2009.

58. Consider the following statements with respect to Inflation Targeting:

- (1) It is a strategy opted by the Central Government to ensure stable inflation rate.
- (2) India aims at containing the inflation between 2% and 6%.

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

Answer: (b)

Explanation:

Statement 1 is incorrect: Inflation targeting is the strategy of monetary policy followed by Central **Bank i.e. Reserve Bank of India** for maintaining price level at a certain level or within a range.

Statement 2 is correct: The Reserve Bank of India aims at containing the inflation between 2% and 6%.

Value Addition: The Reserve Bank of India and Government of India signed a Monetary Policy Framework Agreement on 20th February 2015. As per terms of the agreement, the objective of monetary policy framework would be primarily to maintain price stability, while keeping in mind the objective of growth. The monetary policy framework would be operated by the RBI. RBI would aim to contain consumer price inflation within 6 percent by January 2016 and within 4 percent with a band of (+/-) 2 percent for all subsequent years.

The central bank would be seen as failing to meet the targets, if retail inflation is more than 6 per cent for three consecutive quarters from 2015-16 and less than 2 per cent for three consecutive quarters from 2016-17. If this happens, RBI will have to explain the reason for its

failure to meet as well as give a timeframe within which it will achieve it.

59. Asia Reassurance Initiative Act (ARIA), sometimes seen in news, is:

- (a) India's initiative to affirm its "Look East Policy".
- (b) China's bid to ensure the success of its OBOR initiative.
- (c) USA's strategy to secure its interests in the Asia-Pacific region.
- (d) ASEAN's collaborative effort to secure the sea lines of communication in the Asia-Pacific region.

Answer: (c)

Explanation:

Asia Reassurance Initiative Act (ARIA) is a multipronged strategy of USA to increase its security, economic interests and values in the Indo-Pacific region. The law aims at countering the encroaching influence and growing threat from China, and to reinvigorate U.S. leadership in Asia.

ARIA draws its attention to U.S. relations with China, India, the ten member states of the Association of South East Asian Nations (ASEAN), and North East Asian allies Japan and South Korea.

60. Which of the following are the Galilean moons?

- (1) Io
- (2) Europa
- (3) Ganymede
- (4) Callisto

Select the correct answer using the code given below:

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

Answer: (d)

Explanation:

The Galilean moons are the four largest moons of the Jovian planet Jupiter- Io, Europa, Ganymede and Callisto. 'Io' is most volcanically active in the whole solar system. Nasa's Juno spacecraft had sent some of the pictures of volcanic eruptions from 'Io'.

61. Consider the following pairs:

	Report		Published By
1.	World Development Report	:	World Bank
2.	Financial Stability Report	:	International Monetary Fund (IMF)
3.	Global Risks Report	:	World Economic Forum (WEF)

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

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

Answer: (d)

Explanation:

Only pairs 1 and 3 are correctly matched.

Report	Published By
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- 1. World Development Report : WB
- 2. Financial Stability Report : RBI
- 3. Global Risks Report : IMF
- 4. Global Financial Stability Report: WEF

62. In which of the following States Inner Line Permit (ILP) is **not** operational?

- (a) Manipur
- (b) Mizoram
- (c) Nagaland
- (d) Arunachal Pradesh

Answer: (a)

Explanation:

The Inner Line Permit (ILP) is an official travel document issued by the Government of India to grant inward travel of an Indian citizen into a protected area for a limited period. It is obligatory for Indians residing outside those states to obtain permission prior to entering the protected areas. Currently, the Inner Line Permit is operational in **Arunachal Pradesh, Mizoram and Nagaland**. The document has been issued under the Bengal Eastern Frontier Regulation, 1873 and the conditions and restrictions vary from state to state. It can be issued for travel purposes solely. Visitors are not allowed to purchase property in these regions. However, there might be a different set of rules for long term visitors, though they are not valid for central government employees and security forces.

63. Alma-Ata Declaration 1978 and Astana Declaration 2018 are related to:

- (a) Primary Health Care
- (b) Sustainable waste management
- (c) Climate resilient Agriculture
- (d) Affordable Housing

Answer: (a)

Explanation:

In September 1978, the International Conference on Primary Health Care was held in Alma-Ata, USSR (now Almaty, Kazakhstan). The Declaration of Alma-Ata, co-sponsored by the World Health Organization (WHO), is a brief document that expresses "the need for urgent action by all governments, all health and development workers, and the world community to protect and promote the health of all the people of the world." It was the first international declaration stating the importance of primary health care and outlining the world

governments' role and responsibilities to the health of the world's citizens. In furtherance to it, Astana Declaration 2018 was made in Astana, Kazakhstan.

64. Consider the following statements with respect to Savitribai Phule:

- (1) She started India's first school for women along with Jyotirao Phule and Sagunabai in Bhide Wada.
- (2) She published "Kavya Phule" and "Bavan Kashi Subodh Ratnakar".
- (3) She started Satyashodhak Samaj in 1873

Which of the statements given above is/are correct?

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

Answer: (b)

Explanation:

Statement 1 is correct: Savitribai Phule was taught by Jyotiba at their home. Later, she took a teacher's training course at an institute run by an American missionary in Ahmednagar and in Pune's Normal School. She then started teaching girls in Pune's Maharwada, along with Sagunabai, a revolutionary feminist and a mentor to Jyotiba. Soon after, the Phule couple along with Sagunabai started their school at Bhide Wada, the home of Tatyasaheb Bhide, who was inspired by the Phules' work. The school's curriculum was different from what was taught by Brahmin teachers in their home schools. It included mathematics, science and social studies instead of Brahmanical texts like Vedas and Shastras.

Statement 2 is correct : Savitribai was also a fiery author and poetess. She published Kavya Phule in 1854 and Bavan Kashi Subodh Ratnakar in 1892.

Statement 3 is incorrect: Satyashodhak Samaj was started by Jyotirao Phule. Savitribai Phule's 187th anniversary was on 3 January 2019. The Phule couple initiated two educational trusts; the Native Female School, Pune and The Society for Promoting the Education of Mahars, Mangs and Etceteras. In 1852, Savitribai, started the Mahila Seva Mandal to raise awareness about women's rights.

65. Consider the following pairs:

	Lake		State
1.	Ashtamudi Lake	:	Kerala
2.	Pong Lake	:	Himachal Pradesh
3.	Umiam Lake	:	Meghalaya

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

Answer: (d)

Explanation:

All pairs are correctly matched.

Ashtamudi Lake, in the Kollam District of the Indian state of Kerala, is the most visited backwater and lake in the state. It possesses a unique wetland ecosystem and a large palm-shaped water body, second only in size to the Vembanad estuary ecosystem of the state.

Maharana Pratap Sagar, in India, also known as Pong Reservoir or **Pong Dam Lake** was created in 1975, by building the highest earthfill dam in India on the Beas River in the wetland zone of the Siwalik Hills of the Kangra district of Himachal Pradesh.

Umiam Lake (commonly known as Barapani Lake) is a reservoir in the hills north of Shillong in the State of Meghalaya, India. It was created by

damming the Umiam River in the early 1960s.

66. Consider the following statements:

- (1) Changing the name of a city requires special majority in the State Legislative Assembly of the State concerned.
- (2) Changing the name of a railway station is a prerogative of the Union Government only.

Which of the statements given above is/are correct?

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

Answer: (d)

Explanation:

Both the statements are incorrect:

Statement 1 is incorrect - Changing the name of a city is done by a simple executive order subject to the no objection certificate from the Ministry of Home Affairs.

Statement 2 is incorrect - Changing the name of railway station is under state jurisdiction as in Schedule VII of the Indian Constitution, land is under State List and not the Union List.

67. Consider the following statements:

- (1) The office of the Speaker of Lok Sabha continues to exist even after the dissolution of Lok Sabha.
- (2) The President appoints and governs the oath of the Pro-tem Speaker of Lok Sabha.

Which of the statements given above is/are correct?

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

Answer: (c)

Explanation:

Both the statements are correct.

Statement 1 is correct. The Speaker of the Lok Sabha vacates the office immediately before the first meeting of the newly elected House. Thus, he exists even after the dissolution of the Lok Sabha.

Statement 2 is correct. The President then appoints and governs the oath of the Pro-tem Speaker of Lok Sabha. The main duty of the pro-tem Speaker is to administer the oath to the newly elected MPs of the House.

68. Consider the following statements:

- (1) The Vote on Account deals only with the expenditure side of the government's budget.
- (2) Interim Budget is passed only during the last year of government's term i.e. just before the election.

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

Answer: (c)

Explanation:

Both statements are correct.

Statement 1 is correct - Article 116 of the Constitution states that Vote on Account can be passed when the government need some money to keep the administration running till the Appropriation Act is passed. It is only related to withdrawal of money out of the Consolidated Fund of India and thus limited to the expenditure side only. It is a general tool which is used during each financial year and not specific to election year.

Statement 2 is correct - On the contrary Interim budget is placed in the Lok Sabha during the election year. An Interim Budget is a full budget in all practical sense but made for considering the election in mind. An Interim Budget is a complete set of accounts, including both expenditure and receipts. But it may not contain big policy proposals.

69. With reference to the “Government of India (GoI) Act 1919”, consider the following statements:

- (1) The Act had a separate Preamble declaring the objective of British government in India.
- (2) The Act provided for the establishment of a Public Service Commission in India for the first time.
- (3) The seats in Central Legislature were distributed among the Provinces on the basis of the population.

Which of the statements given above is/are correct?

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

Answer: (a)

Explanation:

Only statement 3 is incorrect.

Salient features of the GoI Act 1919 are as follows:

- This Act had a separate Preamble which declared that the objective of the British Government was the gradual introduction of responsible government in India. **Hence statement 1 is correct.**
- Diarchy was introduced at the Provincial Level. The reserved subjects were controlled by the British Governor of the Province; the

transferred subjects were given to the Indian Ministers of the Province.

- The Government of India Act of 1919, made a provision for classification of the central and provincial subjects.
- The Act kept the Income Tax as source of revenue to the Central Government.
- No bill of the legislature could be deemed to have been passed unless assented to by the Governor General.
- This Act made the Central Legislature bicameral.
- The Act provided for the establishment of a Public Service Commission in India for the first time. **Hence statement 2 is correct.**
- This act also made a provision that a statutory commission would be set up at the end of 10 years after the act was passed which shall inquire into the working system of the government. The Simon commission of 1927 was an outcome of this provision.
- The communal representation was extended and Sikhs, Europeans and Anglo Indians were included.
- The seats were distributed among the provinces not upon the basis of the population but upon the basis of their importance in the eyes of the government, on the basis of communities, and property was one of the main basis to determine a franchise. **Hence statement 3 is incorrect.**
- The financial powers of the Central Legislature were also very much limited. The budget was to be divided into two categories, votable and non-votable.

70. Consider the following pairs:

	River		Tributary
1.	Son river	:	North Koel

			river
2.	Yamuna river	:	Giri river
3.	Indus river	:	Zanskar river

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

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

Answer: (d)

Explanation:

All pairs are correctly matched.

North Koel – Son River

Giri River - Yamuna

Zanskar river - Indus.

North Koel - The North Koel rises on the Ranchi plateau and enters Latehar district, below Netarhat near Rud. After flowing nearly due west, it turns north at an almost complete right angle through a gorge at Kutku, and flows through the centre of the district until it falls into the Son a few miles north-west of Haidarnagar.

Giri River - The Giri River is an important river which feeds the Yamuna. It is also well known as the Giri Ganga. This river drains parts of Himachal in the south eastern areas. Giri River originates in the hills of Kotkhai. It flows through the district of Sirmaur, where after a distance it meets with the Yamuna.

Zanskar River - The Zanskar River is a north-flowing tributary of the Indus. In its upper reaches, the Zanskar has two main branches. First of these, the Doda, has its source near the Pensi-la mountain-pass and flows south-eastwards along the main Zanskar valley leading towards Padum, the capital of Zanskar. The second branch is formed by two main tributaries known as Kargyag river, with its source near the Shingo La, and Tsarap river, with its source near the Baralacha-La. These two

rivers unite below the village of Purne to form the Lungnak river (also known as the Lingti or Tsarap). The Lungnak river then flows north-westwards along a narrow gorge towards Zanskar's central valley (known locally as gzhung khor), where it unites with the Doda river to form the main Zanskar river. This river then takes a north-eastern course through the dramatic Zanskar Gorge until it joins the Indus near "Nimmu" in Ladakh.

71. Which of the following core industry has the least weightage in IIP index (Index of industrial production) in India?

- (a) Fertilizers
- (b) Cement
- (c) Natural Gas
- (d) Coal

Answer: (a)

Explanation:

Eight core industries in increasing order of their percentage in IIP are as follows:

Fertilizers < Cement < Natural Gas < Crude Oil < Coal < Steel < Electricity < Refinery Products.

The IIP is a composite indicator that measures the changes in the volume of production of a basket of industrial products during a given period with respect to the volume of production in a chosen base period. The data refers to the General Index as well as for each industry group. The base year for the current series of IIP is 2011-12.

72. Consider the following statements with respect to the Polar Satellite Launch Vehicle (PSLV):

- (1) It has a payload capacity of 5000 kg.
- (2) It can launch a satellite to Polar Sun synchronous orbit only.

Which of the statements given above is/are correct?

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

Answer: (d)

Explanation:

Polar Satellite Launch Vehicle (PSLV) is the third generation launch vehicle of India. It is the first Indian launch vehicle to be equipped with liquid stages. After its first successful launch in October 1994, PSLV emerged as the reliable and versatile workhorse launch vehicle of India with 39 consecutively successful missions by June 2017. During 1994-2017 period, the vehicle has launched 48 Indian satellites and 209 satellites for customers from abroad.

Besides, the vehicle successfully launched two spacecraft – Chandrayaan-1 in 2008 and Mars Orbiter Spacecraft in 2013 – that later travelled to Moon and Mars respectively.

Statement 1 is incorrect – The PSLV has a payload capacity of 1050 kg for launching into Geo synchronous transfer Orbit and 1600 kg for the Polar Sun synchronous orbit.

Statement 2 is incorrect – The PSLV can launch a satellite to Polar Sun synchronous orbit as well as Geo synchronous transfer Orbit.

73. Consider the following prerequisite, for a celestial body to be considered as a planet:

- (1) It should remain in orbit around the Sun.
- (2) It should have cleared the neighbourhood around its orbit.
- (3) It should have a nearly spherical shape.

Which of the statements given above is/are correct?

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

Answer: (d)

Explanation:

A "planet" is a celestial body that:

- is in orbit around the Sun, (**Hence statement 1 is correct**)
- has cleared the neighbourhood around its orbit. (As Pluto was unable to clear its vicinity Therefore it has been categorised as a dwarf planet) (**Hence statement 2 is correct**)
- has sufficient mass for its self-gravity to overcome rigid body forces so that it assumes a hydrostatic equilibrium (nearly round) shape. **Hence statement 3 is correct.**

74. Consider the following statements regarding the ocean currents:

- (1) The meeting of warm and cold ocean currents will result into rich fishing grounds
- (2) Warm oceanic currents have a desiccating effect.
- (3) Tropical currents are affected by the configuration of the ocean.

Which of the statements given above is/are correct?

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

Answer: (b)

Explanation:

Statement 1 is correct: The meeting of warm and cold ocean currents will result into rich fishing grounds e.g. New found land of USA.

Statement 2 is incorrect: Cold oceanic currents have a desiccating effect. E.g. Sahara desert in North Africa.

Statement 3 is correct: Tropical currents are affected by the configuration of the ocean.

75. Consider the following statements:

- (1) When two continental plates collide, the lighter plate submerges.
- (2) When an oceanic plate collides with a continental plate it results into a fold mountain.

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

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

Answer: (c)

Explanation:

Statement 1 is incorrect: Collision of two continental plates result into a fold mountain and none of the plates submerge. E.g. Himalayas formed due to collision of two continental plates i.e. Indian and Eurasian plates.

Statement 2 is incorrect: Collision of an oceanic plate with a continental plate results into a volcanic mountain. E.g. Volcanic mountains in the Pacific Ring of Fire.

Value Addition:

Subduction Zones and Volcanoes

At some convergent boundaries, an oceanic plate collides with a continental plate. Oceanic crust tends to be denser and thinner than continental crust, so the denser oceanic crust gets bent and pulled under, or subducted, beneath the lighter and thicker continental crust. This forms what is called a **subduction zone**.

As the oceanic crust sinks, a deep oceanic **trench**, or valley, is formed at the edge of the continent. The crust continues to be forced deeper into the earth, where high heat and pressure cause trapped water and other gasses to

be released from it. This, in turn, makes the base of the crust melt, forming **magma**. The magma formed at a subduction zone rises up toward the earth's surface and builds up in magma chambers, where it feeds and creates **volcanoes** on the overriding plate. When this magma finds its way to the surface through a vent in the crust, the volcano erupts, expelling lava and ash. An example of this is the band of active volcanoes that encircle the Pacific Ocean, often referred to as the Ring of Fire.

A subduction zone is also generated when two oceanic plates collide — the older plate is forced under the younger one — and it leads to the formation of chains of volcanic islands known as **island arcs**. Examples include the Mariana Islands in the western Pacific Ocean and the Aleutian Islands, off the coast of Alaska.

76. With reference to “Debt Redemption Reserves (DRR)” consider the following statements:

- (1) It is a mandate for both listed and unlisted companies to set aside 25 per cent of their profits.
- (2) Banks and Non-Banking Financial Companies (NBFCs) are exempted from maintaining DRR if funds are raised through a private placement

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

Answer: (c)

Explanation:

A debenture is a type of debt instrument that isn't secured by collateral. They are

backed only by the credit worthiness and reputation of the issuer.

Statement 1 is correct: DRR is a mandate for both listed and unlisted companies to set aside 25 per cent of their profits to safeguard of the bond investors in case of any default.

Statement 2 is correct: Banks and Non-Banking Financial Companies (NBFCs) are exempted from maintaining DRR if funds are raised through a private placement.

Value Addition:

Raising adequate capital is integral to building and growing a business, and companies usually go the initial public offering (IPO) route. An alternative is the capital raising event known as a private placement. A private placement involves the sale of securities to a relatively small number of select investors. Investors targeted include wealthy accredited investors, large banks, mutual funds, insurance companies and pension funds. A private placement is different from a public issue in which securities are made available for sale on the open market to any type of investor.

77. Consider the following statements with respect to the Hunter Commission 1919:

- (1) It was an all British Commission.
- (2) The purpose of the Commission was to investigate the disturbances in Bombay, Delhi and Punjab.

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

Answer: (b)

Explanation:

Statement 2 is correct: After the massacre at Jallianwalla Bagh, on October 14, 1919, the Government of India announced the formation of the Disorders Inquiry Committee, known as the Hunter Commission. The purpose of the commission was to “investigate the recent disturbances in Bombay, Delhi and Punjab, about their causes, and the measures taken to cope with them”.

Statement 1 is incorrect: There were three Indians among the members, namely, Sir Chimanlal Harilal Setalvad, Vice-Chancellor of Bombay University and advocate of the Bombay High Court; Pandit Jagat Narayan, lawyer and Member of the Legislative Council of the United Provinces; and Sardar Sahibzada Sultan Ahmad Khan, lawyer from Gwalior State.

78. What is “Tokenisation”, seen recently in the news?

- (a) It is the security deposit for contesting the election.
- (b) It is the initial bidding amount for Public Private Partnership (PPP) tenders
- (c) It is an additional layer of debit/credit card security.
- (d) It is an instrument to ensure cyber security.

Answer: (c)

Explanation:

Tokenisation is the replacement of sensitive credit card data with a unique identifier (the token) that cannot be mathematically reversed. The Reserve Bank of India (RBI) has authorised card payment networks to offer card tokenisation services to any third party requesting it.

79. With reference to the “Tax Inspectors without Borders (TIWB)”, consider the following statements:

- (1) It is a joint initiative of United Nations Environment Programme (UNEP) and Organisation for Economic Co-operation and Development (OECD).
- (2) It envisages to strengthen the tax administration in developing countries.

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

Answer: (b)

Explanation:

Statement 1 is incorrect: Tax Inspectors Without Borders (TIWB) is a joint initiative of the Organisation for Economic Co-operation and Development (OECD) and the United Nations Development Programme (UNDP).

Statement 2 is correct: TIWB Programmes support countries in building tax audit capacity. It complements the broader efforts of the international community to strengthen co-operation on tax matters and contribute to the domestic resource mobilisation efforts of developing countries.

80. Consider the following statements with respect to constitutional amendment in India:

- (1) Amending the Fundamental Rights requires ratification by the Legislatures of half of the States by a simple majority.
- (2) A Constitution Amendment Bill can only be introduced by a Minister with prior permission of the President.

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

Answer: (d)

Explanation:

Statement 1 is incorrect - Amending the Fundamental Rights does not require ratification by half of the States. Fundamental Rights are amended by special majority and is subject to the judicial review regarding the 'basic structure' of the Constitution.

Statement 2 is incorrect - The Bill can be introduced either by a Minister or by a private member (e.g. Leader of Opposition) and does not require prior permission of the President.

81. Consider the following pairs:

	Strait		Separated Landmass
1.	Formosa strait	:	Russia and Crimea
2.	Kerch strait	:	China and Taiwan
3.	Sunda strait	:	Java and Sumatra

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

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

Answer: (c)

Explanation:

Only pair 3 is correctly matched.

- | Straits | : | Separated Landmass |
|-------------------|---|--|
| 1. Formosa strait | : | China and Taiwan |
| 2. Kerch strait | : | Russia and Crimea (Connecting Black Sea & Sea of Azov) |
| 3. Sunda strait | : | Java and Sumatra |

82. Consider the following statements with respect to the National Clean Air Programme (NCAP):

- (1) It is being implemented in 102 non-attainment cities, across 23 States and Union territories.
- (2) The Central Pollution Control Board (CPCB) is the executive body for its implementation.

Which of the statements given above is/are correct?

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

Answer: (c)

Explanation:

Statement 1 is correct – The NCAP has been launched with an initial budget of ₹300 crores for the first two years. It is a pollution control initiative to cut the concentration of particles (PM10 & PM2.5) by 20-30% by 2024. It will have 2017 as the base year for comparison and 2019 as the first year. It is to be implemented in 102 non-attainment cities.

Statement 2 is correct – The Central Pollution Control Board (CPCB) is the executive body for its implementation.

83. With reference to the “North East Circuit” consider the following statements:

- (1) It is developed under the Swadesh Darshan scheme of the Ministry of Culture.
- (2) It is a 100% centrally funded scheme.

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

Answer: (b)

Explanation:

Statement 1 is incorrect.

The Swadesh Darshan scheme is one of the flagship schemes of the Ministry of Tourism for development of thematic circuits in the country in a planned and prioritised manner. The scheme was launched in 2014 -15. North East Circuit is developed under Swadesh Darshan scheme. Various locations are being developed under the scheme, e.g.

Meghalaya: Umiam Lake - U Lum Sohpetbneng- Mawdiangdiang - Orchid Lake Resort

Sikkim: Rangpo– Rorathang- Aritar- Phadamchen- Nathang-Sherathang- Tsongmo- Gangtok-Phodong- Mangan- Lachung-Yumthang- Lachen- Thangu- Gurudongmer- Mangan- Gangtok- Tuminlingee- Singtam.

Statement 2 is correct - It is 100% centrally funded scheme.

84. Consider the following statements with respect to NGO-DARPAN:

- (1) It is an online portal of NITI Aayog.
- (2) Registration on this portal is mandatory for NGOs seeking Foreign Contribution Regulation Act (FCRA) services.

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

Answer: (a)

Explanation:

Statement 1 is correct: The NGO DARPAN was earlier maintained by erstwhile Planning Commission, which has been replaced by the NITI Aayog w.e.f. 1st January, 2015. The Portal,

therefore, is being maintained at present under the aegis of the NITI Aayog.

Statement 2 is incorrect: Recently the Ministry of Home Affairs has relaxed the mandatory registration requirement for NGOs seeking Foreign Contribution Regulation Act (FCRA) services. Now it is mandatory only for NGOs seeking government funding.

85. With reference to Affordable Medicines and Reliable Implants for Treatment (AMRIT) stores consider the following statements:

- (1) It is a scheme under the Ministry of Chemicals and Fertilisers.
- (2) AMRIT stores sell branded drugs and not its generic versions.

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

Answer: (b)

Explanation:

Affordable Medicines and Reliable Implants for Treatment (AMRIT) programme is aimed at lowering treatment cost of cancer and cardiovascular diseases.

Statement 1 is incorrect: AMRIT stores are under the Ministry of Health and Family Welfare whereas Jan Aushadi Kendras are under the Ministry of Chemicals and Fertilisers.

Statement 2 is correct: AMRIT stores sell branded drugs at subsidised rates whereas Jan Aushadi Kendras sell generic drugs only.

86. With reference to citizenship in India, consider the following statements:

- (1) Article 11 of the Indian Constitution empowers the

Council of Ministers to regulate the right of citizenship.

- (2) The Indian constitution does not permit dual citizenship.

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

Answer: (b)

Explanation:

Statement 1 is incorrect: Article 11 of the Indian Constitution empowers the Parliament to regulate the right of citizenship.

Statement 2 is correct: The Indian constitution does not permit dual citizenship unlike in many countries like United Kingdom, Australia, etc.

87. What is the importance of the Kimberley process?

- (1) It is a joint initiative of government, industry and civil society to combat desertification.
- (2) It was created by a resolution of the United Nations General Assembly (UNGA) in 2003.
- (3) India is its founding member and presently holds the chairmanship.

Select the correct answer using the code given below:

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

Answer: (c)

Explanation:

Statement 1 is incorrect: The Kimberley process deals with "conflict diamond/blood diamond".

Statement 2 is correct: It is created by a resolution of the United Nations General Assembly (UNGA) in 2003.

Statement 3 is correct: India is its founding member. The Kimberley Process Certification Scheme (KPCS) Plenary 2018, was held in Brussels, Belgium, from 12th-16th November 2018. European Union handed over the Chairmanship of KPCS to India from 1st January, 2019.

88. With reference to the Indian freedom struggle consider the following events:

- (1) August Offer
- (2) Wavell Plan
- (3) Rajagopalachari Formula
- (4) Cabinet Mission

Which is the correct chronological sequence of the above events?

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

Answer: (a)

Explanation:

August Offer-1940; Rajgopalachari Formula-1944; Wavell Plan-1945; Cabinet Mission-1946

August Offer - To get Indian cooperation in the Second World War effort, the Viceroy Lord Linlithgow announced the August Offer (August 1940) which proposed: • dominion status as the objective for India. • expansion of viceroy's executive council. setting up of a constituent assembly after the war. Indians would decide the constitution according to their social, economic and political conceptions, subject to fulfilment of the obligation of the Government regarding defence, minority rights, treaties with states, all India services. • no future constitution to be adopted without the consent of minorities.

Rajagopalachari Formula - C. Rajagopalachari, the veteran Congress leader, in 1944 prepared a formula for

Congress-League cooperation. It was a tacit acceptance of the League's demand for Pakistan. Gandhi supported the formula. The main points in CR Plan were: • Muslim League to endorse Congress demand for independence. • League to cooperate with Congress in forming a provisional government at centre. • After the end of the war, the entire population of Muslim majority areas in the North-West and North-East India to decide by a plebiscite, whether or not to form a separate sovereign state. • In case of acceptance of partition, agreement to be made jointly for safeguarding defence, commerce, communications, etc. The above terms to be operative only if England transferred full powers to India.

Wavell Plan - The main proposals of the Wavell Plan were - • With the exception of the governor-general and the commander-in-chief, all members of the executive council were to be Indians. • Caste Hindus and Muslims were to have equal representation. • The reconstructed council was to function as an interim government within the framework of the 1935 Act (i.e. not responsible to the Central Assembly). • Governor-general was to exercise his veto on the advice of ministers. • Representatives of different parties were, to submit a joint list to the viceroy for nominations to the executive.

Cabinet Mission - The Attlee Government announced in February 1946 the decision to send a high-powered mission of three British Cabinet members (Pethick Lawrence, Secretary of State for India; Stafford Cripps, President of the Board of Trade; and A.V. Alexander, First Lord of Admiralty to India to find out ways and means for a negotiated, peaceful transfer of power to India.

89. With reference to the tribal movements consider the following events:

- (1) Chuar Uprising
- (2) Ho and Munda Uprising
- (3) Santhal rebellion
- (4) Mappilah rebellion

Which is the correct chronological sequence of the above events?

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

Answer: (b)

Explanation:

Chuar Uprising-1776; Ho and Munda Uprising-1820; Santhal rebel-1854; Mappilah rebel-1921

Chuar Uprising - Famine, enhanced land revenue demands and economic distress goaded the Chuar aboriginal tribesmen of Midnapore district to take up arms. The uprising lasted from 1766 to 1772 and then, again surfaced between 1795 and 1816.

Ho and Munda Rising - The Ho and Munda tribesmen of Chhotanagpur challenged the Company's forces in 1820-22, then again in 1831, and the area remained disturbed till 1837.

Santhal Rising - The Santhals of Rajmahal Hills resented the oppression by revenue officials, police, money-lenders, landlords—in general, by the "outsiders" (whom they called diku). The Santhals under Sido and Kanhu rose up against their oppressors, declared the end of the Company's rule and asserted themselves independent in 1854. It was only in 1856 after extensive military operations that the situation was brought under control. Sido died in 1855, while Kanhu was arrested in 1866. A separate district of Santhal Pargana was created by the Government to pacify the Santhals.

Mappilah rebel - The Malabar rebellion was an armed uprising in 1921 against British authority in the Malabar region of Southern India by Mappilas and the culmination of a series of Mappila revolts that recurred throughout the 19th century and early 20th century.

90. Consider the following pairs:

	Newspaper		Published by
1.	The Bengal Gazette	:	James Augustus Hicky
2.	Mirat-ul-Akhbar	:	Rammohan Roy
3.	Voice of India	:	Dadabhai Naoroji

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

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

Answer: (d)

Explanation:

Pair 1 is correct - The first newspaper in India was published on 29 January, 1780 by James Augustus Hicky under the British Raj and its name was 'The Bengal Gazette'. It was also called as 'Calcutta General Advertiser' and people simply remember it as 'Hicky's Gazette'.

Pair 2 is correct - Mirat-ul-Akhbar was a Persian language journal founded and edited by Raja Rammohan Roy. The newspaper was first published on 12 April 1822. It was published on weekly basis on Fridays. The newspaper folded on 4 April 1823.

Pair 3 is correct - Dadabhai Naoroji started the newspaper Voice of India. In 1883 he started the Voice of India in Bombay and later incorporated it into the Indian Spectator.

91. Consider the following:

- (1) Carbon monoxide
- (2) Sulphur dioxide
- (3) Water vapour
- (4) Carbon dioxide

Which of the above gases are global warming agents?

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

Answer: (c)

Explanation:

Global warming is caused due to greenhouse gases. Gases that trap heat in the atmosphere are called greenhouse gases. Multiple gases contribute to the greenhouse effect that sets Earth's temperature over geologic time. Small changes in the atmospheric concentration of these gases can lead to major changes in temperature of the Earth.

Two characteristics of atmospheric gases determine the strength of their greenhouse effect.

The first is the **Global Warming Potential (GWP)**, a measure of the radiative effect of each unit of gas over a specified period of time, expressed relative to the radiative effect of carbon dioxide (CO₂). An amount of gas with high GWP will warm the Earth more than the same amount of CO₂.

The second is the **atmospheric lifetime**, which measures how long the gas stays in the atmosphere before natural processes (e.g., chemical reaction) remove it. A gas with a long lifetime can exert more warming influence than a gas with a short lifetime (assuming the GWPs are equal).

Sulphur dioxide, Water vapour, Carbon dioxide are global warming agents and actively contributes in warming the Earth. Carbon Monoxide (CO) is not a global warming agent.

92. Consider the following statements with respect to Non Cooperation Movement (NCM) in the Indian Freedom Struggle:

- (1) NCM called for boycott of courts and promoted justice through Panchayats.
- (2) NCM promoted resignation from government service, and non-payment of taxes.
- (3) NCM participants worked for Hindu-Muslim unity and for removal of untouchability.

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

Answer: (d)

Explanation:

The Congress approved a Non-Cooperation Movement in September 1920 at a special session in Calcutta, till the Punjab and Khilafat wrongs were removed and Swaraj was established.

Statement 1 is correct: It boycotted government schools and colleges, law courts and favoured justice through panchayats.

Statement 2 is correct: It promoted resignation from government service, and non-payment of taxes.

Statement 3 is correct: During the movement, the participants were supposed to work for Hindu-Muslim unity and for removal of untouchability. It boycotted foreign cloth and promoted khadi.

93. Consider the following statements with respect to the Wildlife Protection Act, 1972:

- (1) The Act is not applicable in Jammu and Kashmir.

- (2) Species listed in the Schedule V of the Act get absolute protection
- (3) Schedule VI of the Act deals with prohibited plants.

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

Answer: (b)

Explanation:

Salient features of Wildlife Protection Act, 1972 –

- Extends to the whole of India, except the State of Jammu and Kashmir which has its own wildlife act. **(Hence, statement 1 is correct)**
- There are six schedules which give varying degrees of protection.
- Out of the six schedules, Schedule I and part II of Schedule II provide absolute protection and offences under these are prescribed the highest penalties. **(Hence, statement 2 is incorrect)**
- The penalties for Schedule III and Schedule IV are less and these animals are protected.
- Schedule V includes the animals which may be hunted. These are Common crow , Fruit bats, Mice & Rats only.
- Schedule VI contains the plants, which are prohibited from cultivation and planting. **(Hence, statement 3 is correct)**

94. What is “Rat hole Mining” which was in news recently?

- (a) It is a technique of making Food Corporation of India (FCI) warehouses rat free.
- (b) It is a kind of land degradation done by rats.

- (c) It is a technique of iron-ore mining practised in Karnataka.
- (d) It is a technique of coal mining practised in Meghalaya.

Answer: (d)

Explanation:

Rat hole mining involves digging of very small tunnels, usually only 3-4 feet high, which workers (often children) enter and extract coal. Rat-hole mining is broadly of two types –

1. In side-cutting procedure, narrow tunnels are dug on the hill slopes and workers go inside until they find the coal seam. The coal seam in hills of Meghalaya is very thin, less than 2 m in most cases.
2. In the other type of rat-hole mining, called box-cutting, a rectangular opening is made, varying from 10 to 100 sq m, and through that is dug a vertical pit, 100 to 400 feet deep. Once the coal seam is found, rat-hole-sized tunnels are dug horizontally through which workers can extract the coal.

In 2014 The National Green Tribunal has banned this archaic technique.

95. “Geneva Convention 1949” recently in news is related to:

- (a) To protect the refugees from persecution.
- (b) To fight against international child trafficking.
- (c) To prevent international organ trading.
- (d) To ensure humanitarian treatment in war.

Answer: (d)

Explanation:

The Geneva Conventions comprise four treaties and three additional protocols, for humanitarian treatment in war. The **Geneva Conventions 1949** and their

Additional Protocols are international treaties that contain the most important rules limiting the barbarity of war. They protect people who do not take part in the fighting (civilians, medics, aid workers) and those who can no longer fight (wounded, sick and shipwrecked troops, prisoners of war).

1951 Refugee Convention defines the term 'refugee' and outlines the rights of the displaced, as well as the legal obligations of States to protect them. The United Nations High Commissioner for Refugees (UNHCR) serves as the 'guardian' of the 1951 Convention.

Child trafficking is about taking children out of their protective environment and preying on their vulnerability for the purpose of exploitation.

International Conventions Relevant to Combating Trafficking:

- UN Convention on the Rights of the Child
- Council of Europe Convention on action against trafficking in human beings

The **Council of Europe Convention against Trafficking in Human Organs** entered into force in 2009. The aim of the Convention is to prevent and combat trafficking in human organs by criminalising certain acts; to protect the rights of victims as well as to facilitate national and international co-operation on action against trafficking in human organs.

96. Consider the following statements:

- (1) Temperate grasslands of Brazil are termed as Campos.
- (2) Tropical grasslands of Argentina are termed as Pampas.

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

Answer: (d)

Explanation:

Both the statements are incorrect:



Tropical grasslands of Brazil are termed as Campos.

Temperate grasslands of Argentina are termed as Pampas.

97. Consider the following:

- (1) Tapti
- (2) Sabarmati
- (3) Mahi
- (4) Luni

Which of the rivers mentioned above, flow westward?

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

Answer: (d)

Explanation:

All are west flowing rivers.

Tapti – Source- Satpura Range. The Tapti River is a river in central India between the Godavari and Narmada rivers. It flows westwards before draining through the Gulf of Khambhat into the Arabian Sea. It flows through Surat, and is crossed by the Magdalla ONGC Bridge.

Sabarmati - The Sabarmati river is one of the major west-flowing rivers in India. It originates in the Aravalli Range of the Udaipur District of Rajasthan and meets the Gulf of Khambhat of Arabian Sea after travelling 371 km in a south-westerly direction across Rajasthan and Gujarat.

Mahi - The Mahi is a river in western India. It rises in Madhya Pradesh and, after flowing through the Vagad region of Rajasthan, enters Gujarat and flows into the Arabian Sea.

Luni - Luni is a river in Rajasthan. It originates in the Pushkar valley of the Aravalli Range, near Ajmer, passes through the southeastern portion of the Thar Desert, and ends in the marshy lands of Rann of Kutch in Gujarat.

98. Consider the following pairs:

	Organisation		Founder
1.	Mitra Mela	:	Savarkar
2.	Landholder's Society	:	Rabindranath Tagore
3.	East India Association	:	Dadabhai Naoroji

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

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

Answer: (b)

Explanation:

Organisation	Founder
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- 1. Mitra Mela : Savarkar
- 2. Landholders' Society : Dwarkanath Tagore
- 3. East India Association : Dadabhai Naoroji

Mitra Mela - In 1899, V.D. Savarkar and his brother Ganesh Savarkar established a revolutionary society 'Mitra Mela', which influenced the members to fight for "absolute political independence" of India.

Landholders' Society - In 1838, to protect the interests of the landlords, the Zamindary Association (popularly known as the Landholders' Society) was established by Dwarkanath Tagore in Bengal.

East India Association - East India Association was an organization established by some Indian students in London on 1 October 1866 on initiative of Dadabhai Naoroji. It was one of the predecessor organizations of the Indian National Congress

99. Consider the following:

- (1) Rhizobium
 - (2) Azotobacter
 - (3) Azospirillum
 - (4) Mycorrhiza
 - (5) Phosphate solubilising Bacteria
- Which among the above are considered as Bio-fertilizers?
- (a) 1 and 2 only
 - (b) 1, 3, 4 and 5 only
 - (c) 2, 4 and 5 only
 - (d) 1, 2, 3, 4 and 5

Answer: (d)

Explanation:

A Bio fertilizer is a substance which contains living microorganisms which, when applied to seeds, plant surfaces, or soil, colonize the rhizosphere or the interior of the plant and promotes growth by increasing the supply or availability of primary nutrients to the host plant. All the

given organisms are used as bio-fertilizers.

Rhizobium bacterium lives in the soil to form root nodules (i.e. outgrowth on roots) in plants such as beans, gram, groundnut, and soybean. Leguminous plants require high quantities of nitrogen compared to other plants. Nitrogen is an inert gas and its uptake is possible only in fixed form, which is facilitated by the rhizobium bacteria present in the nodules of the root system.

Azotobacter are free living bacteria in the vicinity of root zones of various non-leguminous crops. Besides their capacity to fix atmospheric nitrogen they produce, indole acetic acid, gibberellin, cytokinin and certain vitamins which enhances growth or root and shoot system of seedlings. They also produce some anti fungal compounds and this provides protection to plants from pathogen.

Azospirillum is a nitrogen fixing biofertilizer. Nitrogen is a major nutrient for all plants. Azospirillum lipofereum is a very useful soil and root bacterium. It is an associative symbiotic nitrogen fixing bacteria. It is found in the soil around plant roots and root surface.

Mycorrhizae are a group of fungi that include a number of types based on the different structures formed inside or outside the root. These are specific fungi that match with a number of favourable parameters of the the host plant on which it grows.

100. Which of the following statements regarding the special status of Jammu and Kashmir is/are correct?

- (1) The Fundamental Right to property is still guaranteed in Jammu and Kashmir.
- (2) The President of India has no power to declare a financial emergency in relation to the state of Jammu and Kashmir.

- (3) An amendment made to the Constitution of India does not apply to the state of Jammu and Kashmir unless it is extended by a Presidential order.

Select the correct answer using the code given below:

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

Answer: (d)

Explanation:

The Constitution (Application to Jammu and Kashmir), Order, 1954 is the basic order that, as amended and modified from time to time, regulates the constitutional position of the state and its relationship with the Union.

- Part III (dealing with Fundamental Rights) is applicable to the state with some exceptions and conditions. The Fundamental Right to Property is still guaranteed in the state. Also, certain special rights are granted to the permanent residents of the state with regard to public employment, acquisition of immovable property, settlement and government scholarships. **Hence, statement 1 is correct.**
- Part IV (dealing with Directive Principles of State Policy) and Part IVA (dealing with Fundamental Duties) are not applicable to the state.
- The President has no power to declare a financial emergency in relation to the state. **Hence, statement 2 is correct.**
- An amendment made to the Constitution of India does not apply to the state unless it is extended by a presidential order. **Hence, statement 3 is correct.**