



### TEST -22 GS (Full Length Test-1) Answers Key

**Question 1:** Answer: (b) Only 2 and 3 Explanation:

- **Statement 1 is incorrect:** Sautrantika and Sammitiya were branches of the Hinayana sect of Buddhism, not Mahayana. The two major philosophical schools of Mahayana are Madhyamaka (**Shunyavada**) and Yogachara (**Vijnanavada**).
- **Statement 2 is correct:** 'Pratityasamutpada' is the center of Buddha's teachings. It means—"The dependent origination of one thing upon the existence of another." It is based on the principle of Cause and Effect.
- **Statement 3 is correct:** The exponent of Madhyamaka philosophy was Acharya Nagarjuna. He stated that all things in the world are '**Shunya**' (void) because they depend on some cause or the other (**Theory of Relativity**).

**Question 2:** Answer: (c) The dialogue between the boy Nachiketa and Yama, the god of death, is described in the Kathopanishad. Explanation:

- **Option (a) is incorrect:** The first mention of the word '**Bhakti**' is found in the Shvetashvatara Upanishad.
- **Option (b) is incorrect:** The first mention of the four Ashramas is found in the Jabala Upanishad. Chandogya mentions only the first three Ashramas.
- **Option (c) is correct:** The Yama-Nachiketa dialogue is in the Kathopanishad, in which knowledge of the state after death and the '**Atman**' (soul) is given.
- **Option (d) is incorrect:** Upanishads are related to the '**Jnana-kanda**' (knowledge portion), the final part of the Vedas, and not the ritualistic '**Brahmana**' portion.

**Question 3:** Answer: (b) A-2, B-1, C-4, D-3 Explanation:

- **Lothal:** Evidence of a '**Dockyard**' has been found here.
- **Kalibangan:** Marks of a '**Ploughed Field**' have been found here.
- **Banawali:** A '**Terracotta Plough**' has been obtained from here.
- **Dholavira:** It is famous for its '**Advanced Water Management System**' and reservoirs.

**Question 4:** Answer: (b) Only 2 and 3 Explanation:

- **Statement 1 is incorrect:** Rakhigarhi is a Bronze Age (**Harappan**) site, not a Paleolithic site.
- **Statement 2 is correct:** According to recent excavations (**by Amarendra Nath and Vasant Shinde**), Rakhigarhi is considered the largest Harappan site in the subcontinent, even larger than Mohenjo-daro in terms of area.
- **Statement 3 is correct:** DNA analysis of human skeletons found here revealed that the Harappans were not related to the Aryans (**Steppe nomads**), but were a local population.

**Question 5:** Answer: (c) Only 1 and 3 Explanation:

- **Statement 1 is correct:** The Gandhara style is called the '**Indo-Greek**' style. In this, Buddha is shown with muscular features and curly hair, similar to the god Apollo.
- **Statement 2 is incorrect:** The Mathura style was indigenous, but it consisted of statues related to Buddhism, Jainism, and Hinduism (**all three religions**).
- **Statement 3 is correct:** White marble has been used in the

Amaravati style (**Satavahana period**) and it features more scenes from '**Jataka tales**' rather than individual statues.

[Image comparing Gandhara, Mathura, and Amaravati styles of Buddhist art]

**Question 6:** Answer: (b) Only two pairs (1 and 3) Explanation:

- **Pair (1) is correct:** The founder of Samkhya philosophy was Kapil Muni.
- **Pair (2) is incorrect:** The author of Mricchakatikam was Shudrak (**Vishakhadatta wrote 'Mudrarakshasa'**).
- **Pair (3) is correct:** The author of Yogashastra was Maharishi Patanjali.
- **Pair (4) is incorrect:** The author of Devichandraguptam was Vishakhadatta.

**Question 7:** Answer: (b) Only 1 and 3 Explanation:

- **Statement 1 is correct:** Iqta was a system of revenue transfer in lieu of salary.
- **Statement 2 is incorrect:** Initially (**during the time of Iltutmish**), Iqtas were not hereditary. It became hereditary during the time of Firoz Shah Tughlaq, but basically, it was a transferable post.
- **Statement 3 is correct:** Iqta-i-Tamlik (**permanent/hereditary**) and Iqta-i-Istighlal (**temporary**) were its two main types.

**Question 8:** Answer: (c) Only 1 and 3 Explanation:

- **Statement 1 is correct:** Alauddin Khalji established '**Diwan-i-Mustakhraj**' to stop corruption and recover outstanding land revenue.
- **Statement 2 is incorrect:** The first successful use of the '**True Arch**' in India occurred in the '**Alai Darwaza**' built by Alauddin Khalji, not during the time of Ghiyasuddin Tughlaq.
- **Statement 3 is correct:** Firoz Tughlaq established '**Diwan-i-Khairat**' for public welfare.

**Question 9:** Answer: (a) Both (A) and (R) are correct and (R) is the correct explanation of (A). Explanation: The Revolt of 1857 was not limited only to greased cartridges. Kings were troubled by the '**Doctrine of Lapse**', farmers were troubled by '**Mahalwari**' and '**Ryotwari**', and soldiers were troubled by the company's discrimination. All these reasons combined to make it a widespread mass rebellion.

**Question 10:** Answer: (b) Only 2 and 3 Explanation:

- **Statement 1 is incorrect:** The educated middle class remained neutral during this revolt. Also, the Scindias of Gwalior and the rulers of Patiala helped the British government, not the rebels.
- **Statement 2 is correct:** Under the Act of 1858, the administration came directly into the hands of the Queen (**British Crown**) and the diarchy (**Board of Control**) established by the '**Pitt's India Act**' ended.
- **Statement 3 is correct:** On the recommendation of the Peel Commission, the ratio of European and Indian soldiers in the Bengal Army was made 1:2 and regiments were divided on the basis of caste and region.



# Vedanta IAS Academy

India's No.1 Institute For UPSC Exam

**Question 11:** Answer: (b) Only 2 and 3 Explanation:

- **Statement 1 is incorrect:** The Act increased the size of the Legislative Councils, but a non-official majority was allowed in the provincial councils. Official majority was mandatory only in the Central Council.
- **Statement 2 is correct:** Through this Act, an Indian got a place in the Viceroy's Executive Council for the first time. Satyendra Prasad Sinha became the first Indian member (as a Law member).
- **Statement 3 is correct:** It provided a 'Separate Electorate' for Muslims, which led to the beginning of legal communalism in India. Lord Minto is called the 'Father of Communal Electorate'.

**Question 12:** Answer: (b) Only 1, 2 and 4 Explanation:

- **Statements 1 and 2 are correct:** 'Diarchy' was implemented in the provinces. The Governor administered the 'Transferred' subjects with the help of elected ministers who were responsible to the council.
- **Statement 3 is incorrect:** Important subjects like revenue, finance, justice, and police were in the 'Reserved' list, which the Governor administered through his Executive Council (which was not responsible). Subjects like education and health were in the Transferred list.
- **Statement 4 is correct:** A bicameral system and direct elections were introduced for the first time at the center.

**Question 13:** Answer: (a) Only 1, 2 and 3 Explanation:

- **Statements 1, 2 and 3 are correct:** Ashwini Kumar Dutt's 'Swadesh Bandhab Samiti' created public awareness. Tagore emphasized on 'Atmashakti' (constructive work). In the field of art, Abanindranath Tagore and in education, the 'National Council of Education' was established.
- **Statement 4 is incorrect:** The movement did not get the full support of all sections of society. The upper and middle-class Muslims and farmers largely stayed away from it. Especially under the influence of Nawab Salimullah of Dhaka, many Muslim farmers maintained distance.

**Question 14:** Answer: (a) Both (A) and (R) are correct and (R) is the correct explanation of (A). Explanation: The First Anglo-Maratha War ended with the Treaty of Salbai. It gave the British time to deal with Mysore and other powers and gave the Marathas (especially Mahadji Shinde) an opportunity to re-establish their power in North India.

**Question 15:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** Dadabhai Naoroji declared 'Swaraj' as the goal of the Congress in 1906.
- **Statement 2 is correct:** In the Lucknow Pact (1916), the Congress-League agreement took place and the Congress accepted the Muslim League's demand for separate electorates, which was later considered a strategic mistake.
- **Statement 3 is correct:** In 1938, on the initiative of Subhash Chandra Bose, the 'National Planning Committee' was formed, of which Nehru was the chairman.

**Question 16:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** Under the influence of leaders like Akshay Kumar Dutt, the Brahmo Samaj challenged the infallibility of the Vedas.

- **Statement 2 is correct:** Jyotiba Phule and Savitribai Phule emphasized logic and education through the Satyashodhak Samaj.
- **Statement 3 is correct:** The Young Bengal Movement led by Henry Vivian Derozio was very revolutionary, but its base remained limited only to the college students of Kolkata.

**Question 17:** Answer: (b) Only two (Statements 2 and 3 are correct) Explanation:

- **Statement 1 is incorrect:** The Self-Respect Movement was an ideological and social movement, not a 'violent rebellion'. It was against casteism and the lack of self-respect.
- **Statement 2 is correct:** Paramahansa Mandali was a secret society that held collective feasts to break casteism.
- **Statement 3 is correct:** Dharma Sabha was an 'orthodox' institution that opened a front in support of the Sati system and against social reforms.

**Question 18:** Answer: (b) Only two pairs (2 and 4) Explanation:

- **Pair 1 is incorrect:** The founder of Indian Mirror was Debendranath Tagore, but its main editors were Manmohan Ghosh and Keshav Chandra Sen.
- **Pair 2 is correct:** 'The Socialist' was the first socialist magazine in India, started by S.A. Dange.
- **Pair 3 is incorrect:** The author of 'Bahishkrit Bharat' was Dr. B.R. Ambedkar (Jyotirao Phule wrote 'Deenbandhu' and 'Gulamgiri').
- **Pair 4 is correct:** 'Tahzib-ul-Akhlaq' (Civilization and Ethics) was started by Sir Sayyid Ahmad Khan.

**Question 19:** Answer: (c) All three Explanation: The objective of Curzon's 'Divide and Rule' policy was to divide Bengal, the center of nationalism. In protest against this, the Swadeshi Movement started, which gave birth to the National Council of Education and Swadeshi industries (such as Bengal Chemicals).

**Question 20:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** The word 'Discretion' is used for the Governor in Article 163 of the Constitution, which is not used for the President (Article 74).
- **Statement 2 is correct:** Choosing the CM in the absence of a majority depends on the 'Situation', while powers under the schedules of the Constitution or special articles (like 371) are 'Constitutional'.
- **Statement 3 is correct:** According to Article 163(2), the decision of the Governor as to whether a matter falls within his discretion or not is final.

**Question 21:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** States like Nagaland, Mizoram, Karnataka have special status under Article 371 (A to J). This is called 'Asymmetric Federalism' because all states do not have equal powers.
- **Statement 2 is correct:** In countries like the USA, all states get equal seats in the Upper House, but in India, Rajya Sabha seats are based on population. This tilts the balance of federalism towards the Centre.
- **Statement 3 is incorrect:** Although these councils promote cooperative federalism, they do not completely eliminate



the control of the Centre. Zonal Councils are advisory bodies, headed by the Union Home Minister.

**Question 22:** Answer: (a) Only one Explanation:

- **Statement 1 is incorrect:** Indian states cannot take loans directly from abroad without the permission of the Central Government. Article 293 clarifies that states can take loans only from within India.
- **Statement 2 is correct:** According to Article 293(3), if a state has an outstanding old debt to the Centre, prior consent of the Centre is mandatory for it to take a new loan.
- **Statement 3 is incorrect:** The recommendations of the Finance Commission are only advisory. Although the Centre usually accepts them, not accepting them has not been declared a 'violation of the Constitution' by the Supreme Court.

**Question 23:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** Article 131 only hears disputes related to Legal Rights, not political differences.
- **Statement 2 is correct:** If the Plaintiff is a private citizen, the case does not fall under Article 131. It is only for disputes between units (Centre and States).
- **Statement 3 is correct:** Under Article 262, inter-state water disputes have been kept outside the jurisdiction of the court so that special Tribunals can be created for them.

**Question 24:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** According to Article 200, if any bill endangers the position of the High Court, the Governor is bound to reserve it for the President.
- **Statement 2 is correct:** Once a bill reaches the President, the role of the Governor ends. Now the President directly takes the decision on it.
- **Statement 3 is incorrect:** In the case of State bills, the President is not bound to give assent even after reconsideration (unlike bills of the Parliament).

**Question 25:** Answer: (b) Only two Explanation:

- **Statement 1 is incorrect:** After 'Maneka Gandhi vs Union of India' (1978), the court follows the 'Due Process of Law', which means that the law must not only be procedurally but also fundamentally 'just and fair'.
- **Statement 2 is correct:** The court has interpreted that Article 21 includes not just survival, but the Right to Live with Dignity.
- **Statement 3 is correct:** After the 44th Amendment (1978), a provision was made that Articles 20 and 21 cannot be suspended even during an Emergency.

**Question 26:** Answer: (a) Only one Explanation:

- **Statement 1 is incorrect:** In India, preventive detention can be used during both peace time and war time.
- **Statement 2 is correct:** According to Article 22(5), the state must disclose the grounds of detention, but Article 22(6) says that if it is against 'public interest', the grounds can be withheld.
- **Statement 3 is incorrect:** The power to make laws on preventive detention is in the Concurrent List. Parliament can make laws for defense and foreign affairs, while States can also make laws to maintain Public Order.

**Question 27:** Answer: (c) Only three Explanation: Statements 1, 2, and 3 are Compulsory provisions. Statement 4 is Voluntary: giving reservation to backward classes (OBC) depends on the discretion of the state government; it is not constitutionally mandatory.

**Question 28:** Answer: (a) Only one Explanation:

- **Statement 1 is incorrect:** Powers over the 29 subjects of the Eleventh Schedule are 'transferred' by the state governments to the Panchayats; these are not provided directly by the Constitution.
- **Statement 2 is incorrect:** The State Finance Commission can give extensive suggestions on the financial health and distribution of resources of the Panchayats.
- **Statement 3 is correct:** The Gram Sabha has the power to prevent corruption and ensure accountability through Social Audit.

**Question 29:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** Article 11 gives full power to the Parliament to make laws on citizenship.
- **Statement 2 is correct:** CAA 2019 provides relief to those 6 religious communities (Hindu, Buddhist, Jain, Sikh, Christian, Parsi) who have come from neighboring countries due to religious persecution.
- **Statement 3 is correct:** Termination of citizenship is an administrative act, which can be subject to Judicial Review by the court.

**Question 30:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** The electoral college consists only of elected members (Parliament + Assembly). Nominated members do not participate in this.
- **Statement 2 is incorrect:** The value of the vote of each member is not equal. The value of the votes of MLAs varies according to the population of the state, while that of MPs is equal.
- **Statement 3 is correct:** According to the Supreme Court, the presidential election cannot be stopped if an assembly is dissolved.

**Question 31:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** The Constitution does not grant the President any 'Constitutional Discretion' (unlike the Governor), but there are some Situational discretions, such as—appointment of the Prime Minister in a hung Lok Sabha or dissolution of the Lok Sabha when the Council of Ministers is in minority.
- **Statement 2 is correct:** According to the 44th Amendment (1978), the President can return the advice once, but he must accept the advice given the second time.
- **Statement 3 is incorrect:** Stopping a bill for an indefinite period (Pocket Veto) is indeed a power of the President, but he cannot use it against the advice of the Council of Ministers. In India, the President is the constitutional head and cannot act against the will of the real executive (Council of Ministers).

**Question 32:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** Article 39A talks about equal justice and free legal aid. This is mandatory for democracy



# Vedanta IAS Academy

India's No.1 Institute For UPSC Exam

and the rule of law.

- **Statement 2 is correct:** Under Article 46, the protection of the interests of SC/ST is the responsibility of the State. The talk of '**balance**' is because special provisions for these sections create a balance as exceptions to fundamental rights (such as Articles 15, 16).
- **Statement 3 is incorrect:** Giving powers to Panchayats after the 73rd Amendment is not just a '**discretion**', but a constitutional obligation.

**Question 33:** Answer: (a) Only one Explanation:

- **Statement 1 is correct:** Although you cannot go to court to enforce DPSP, the court can use DPSP as a basis while checking the validity of a law (according to Article 37, these are fundamental in governance).
- **Statement 2 is incorrect:** Article 40 directs the organization of Panchayats, but making them a "**Sovereign Unit**" would mean a state within a state, which is against the federal structure. They are units of '**local self-government**'.
- **Statement 3 is incorrect:** '**Free legal aid**' is Article 39A (DPSP). One cannot go directly to the Supreme Court on its violation because DPSPs are non-justiciable.

**Question 34:** Answer: (c) Only three Explanation:

- **Statement 1 is correct:** '**Procedure established by law**' (Japan) and '**Rule of Law**' (Britain).
- **Statement 2 is incorrect:** Directive Principles of State Policy are taken from Ireland, this is correct. But the method of election of the President is also taken from Ireland, not from America (**Impeachment is taken from America**).
- **Statement 3 is correct:** Joint sitting (**Australia**) and Amendment process (**South Africa**).
- **Statement 4 is correct:** Republic and Liberty-Equality-Fraternity (**France**).

**Question 35:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** Earlier there was only one commission under Article 338. A separate Article 338A was created for ST by the 89th Amendment (2003).
- **Statement 2 is correct:** While investigating, the Commission has the powers of a '**Civil Court**' (issuing summons, demanding affidavits).
- **Statement 3 is incorrect:** The Commission submits its report to the President, not directly to the Parliament. The President causes it to be laid before the Parliament.

**Question 36:** Answer: (a) Both (A) and (R) are correct, and (R) is the correct explanation of (A). Explanation: All bills containing the items given in Article 110 are Money Bills. Since a Money Bill also involves finance (**money**), they are a category of Finance Bills. But every Finance Bill does not fit into the definition of Article 110.

**Question 37:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** Only when the Western Jet Stream moves from the south of the Himalayas to the north (**towards Tibet**), the low-pressure area in India attracts the monsoon.
- **Statement 2 is correct:** The Eastern Jet Stream provides momentum to the monsoon and its strength increases the intensity of rainfall.

- **Statement 3 is incorrect:** The Polar Jet Stream is more intense and irregular because the thermal contrast (**temperature difference**) there is very high.

**Question 38:** Answer: (a) Only one Explanation:

- **Statement 1 is incorrect:** In the '**Eye**' of a cyclone, there is subsidence of air (**it falls down**), not ascent. For this reason, there is peace and cloudless sky there.
- **Statement 2 is correct:** The temperature of the Bay of Bengal remains higher and the fresh water of rivers like Ganga-Brahmaputra floats on the surface, which leads to more evaporation.
- **Statement 3 is incorrect:** '**Low**' Vertical Wind Shear is necessary for a cyclone. High shear destroys the structure of the cyclone.

**Question 39:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** In El-Nino, due to the weakening of the Walker Cell, heavy rainfall occurs in the eastern part of the Pacific (**Peru coast**).
- **Statement 2 is correct:** La-Nina is good for India (**more rain**), but brings drought for Peru.
- **Statement 3 is correct:** In '**Modoki**', heating occurs in the '**central**' Pacific, which has a different effect than the normal El-Nino.

**Question 40:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** The Hadley Cell (**0° - 30°**) is responsible for the trade winds.
- **Statement 2 is incorrect:** The Ferrel Cell (**30° - 60°**) is a thermally indirect cell. It acts only as a '**gear**' between the Hadley and Polar cells.
- **Statement 3 is correct:** At the Horse Latitudes (**30°-35°**), the air descends, creating high pressure. Rainfall is low here, so most of the world's deserts are in this belt.

**Question 41:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** Madden-Julian Oscillation (**MJO**) is a wave of clouds and rainfall moving eastward over the Indian and Pacific Oceans. It directly affects the intensity and '**break**' of the monsoon.
- **Statement 2 is correct:** The positive phase of the Indian Ocean Dipole (**IOD**) brings good rainfall in India. If there is a possibility of less rain in any year due to El-Nino, positive IOD often balances it and makes the monsoon normal.
- **Statement 3 is incorrect:** The shifting of the ITCZ is not just a thermal event. The physical barrier of the Himalayas divides the Western Jet Stream and the Tibetan Plateau acts like a thermal engine, helping in the northward displacement of the ITCZ and the '**burst**' of the monsoon.

**Question 42:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** The monsoon of East Asia (**China, Japan**) is highly dependent on the position of the Jet Stream, especially when the Jet Stream moves to the north of the Himalayas.
- **Statement 2 is correct:** Differential heating of land and water creates low and high pressure, while the Coriolis force provides direction to those winds, causing monsoonal reversal.
- **Statement 3 is correct:** When it is winter in India, the



ITCZ shifts towards the Southern Hemisphere (**Australia**), causing monsoon there. This is exactly opposite to the cycle of the Indian monsoon.

**Question 43:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** Most peninsular rivers flow towards the east, but Narmada and Tapi flow westwards against the slope due to Rift Valleys.
- **Statement 2 is correct:** Cauvery is the only South Indian river that is almost perennial because its upper catchment area receives rainfall from the South-West monsoon and the lower area from the North-East (**retreating**) monsoon.
- **Statement 3 is incorrect:** Godavari is the longest river of peninsular India and its delta is very vast in terms of deposits. Krishna's delta is also important, but calling it "most dense" is technically flawed.

**Question 44:** Answer: (a) 1-2-4-3 Explanation: According to the map, the correct North to South order is:

1. Nallamala Hills (**Andhra Pradesh**)
2. Javadi Hills (**Tamil Nadu**)
3. Shevroy Hills (**Tamil Nadu**)
4. Palani Hills (**near Tamil Nadu/Kerala border**)

**Question 45:** Answer: (a) Only one Explanation:

- **Statement 1 is correct:** The Pacific Ring of Fire is mainly located at convergent plate boundaries where subduction of plates occurs.
- **Statement 2 is incorrect:** The eruption of Hawaii islands is not explosive but 'quiet' because 'basaltic' (**alkaline**) lava is found there, which is very thin.
- **Statement 3 is incorrect:** The presence of volcanoes is found along island arcs as well as on continental coasts (**such as the Andes and Rockies mountains**).

**Question 46:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** The cold Peru Current dries the air near the coast, making the Atacama the driest desert in the world.
- **Statement 2 is correct:** Dense fog forms near Newfoundland and Japan where currents meet. These areas are the world's best fishing grounds due to the abundance of 'Plankton'.
- **Statement 3 is correct:** The extension of the Gulf Stream (**North Atlantic Drift**) keeps the western coast of Europe warm, allowing ports in countries like Norway to remain open even in winter.

**Question 47:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** The Western Ghats are not actually mountains; they are the broken edges (**fault escarpments**) of the plateau. Their height increases from North (**Maharashtra**) to South (**Kerala**).
- **Statement 2 is correct:** The Eastern Ghats have been cut by rivers like Godavari, Krishna, and Cauvery and turned into isolated hills.
- **Statement 3 is incorrect:** Anaimudi is located on the Anaimalai Hills. The meeting point of the Eastern and Western Ghats is the Nilgiris, but Anaimudi is not on the Nilgiris.

**Question 48:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** This is Ferrel's Law (**Coriolis Effect**).
- **Statement 2 is correct:** Polar winds come from high air pressure and, being very cold, cannot hold moisture, hence they are dry.
- **Statement 3 is correct:** There is a lack of continents in the Southern Hemisphere. Without any hindrance (**mountains/forests**), winds move at extremely high speeds at 40°-50° latitudes, which are called 'Roaring Forties'.

**Question 49:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** There is more land in the Northern Hemisphere which heats up and cools down quickly, leading to a huge difference in temperature (**Range of temperature**).
- **Statement 2 is correct:** For a cyclone to form, the rotation of air is necessary, for which Coriolis force is required. Due to the absence of this force at the Equator (**0°**), winds pass straight and cyclones do not form.
- **Statement 3 is incorrect:** In the Southern Hemisphere too, the shape of continents (**like the tips of Africa and South America**) has a deep impact on the direction of ocean currents.

**Question 50:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** The longest border is with Bangladesh (**4096 km**) and the shortest with Afghanistan (**106 km - in the POK part of Ladakh**).
- **Statement 2 is incorrect:** Four states share a border with Myanmar: Arunachal Pradesh, Nagaland, Manipur, and Mizoram.
- **Statement 3 is correct:** The Radcliffe Line is a 'Superimposed' boundary because it was drawn on the map by an external power (**Britain**), rather than being based on cultural or natural boundaries.

**Question 51:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** An excess of nitrogen and phosphorus leads to Algal Bloom, which covers the water surface and prevents sunlight from reaching the depths.
- **Statement 2 is incorrect:** During the decomposition of dead algae, microorganisms consume oxygen, leading to an increase in 'Biological Oxygen Demand' (**BOD**), not a decrease. High BOD indicates a lack of oxygen in the water.
- **Statement 3 is correct:** Due to eutrophication, organic waste keeps accumulating at the bottom, making the water body shallow and, over time, turning it into a swamp or dry land (**terrestrial ecosystem**).

**Question 52:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** The solubility of oxygen is lower in warm water. As temperature increases, oxygen in seawater decreases, creating 'Dead Zones' with 'Hypoxia' (**lack of oxygen**).
- **Statement 2 is correct:** The dissolution of atmospheric CO<sub>2</sub> in the ocean lowers the pH (**acidification**). This reduces carbonate ions, making it difficult for coral reefs (**Corals**) and snails to build their shells (**Calcification**).
- **Statement 3 is incorrect:** Fresh water is lighter (**less dense**) than seawater. Fresh water obtained from the melting of glaciers reduces the density of the sea, which can slow



down vertical circulation (**Thermohaline Circulation**).

**Question 53:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** This is a characteristic of Deciduous forests, which shed leaves at the beginning of summer to save water.
- **Statement 2 is correct:** Mangrove plants have respiratory roots called '**Pneumatophores**' that emerge from the swampy soil and take oxygen from the air.
- **Statement 3 is correct:** The needle-like leaves of Coniferous trees help snow to slide off and the waxy layer saves moisture.

**Question 54:** Answer: (b) Only two Explanation:

- **Statement 1 is incorrect:** In '**Temperature Inversion**', a layer of warm air is above cold air. This acts like a lid and prevents pollutants from going up or spreading, trapping them near the ground.
- **Statement 2 is correct:** On winter nights, the ground cools down quickly, creating an inversion situation and pollution (like smog) accumulates near the surface.
- **Statement 3 is correct:** In cyclonic conditions, there is low pressure and air rises upwards, causing pollutants to go up and reducing pollution on the surface.

**Question 55:** Answer: (b) Only two Explanation:

- **Statement 1 is incorrect:** Excessive '**Leaching**' occurs in areas where rainfall is very high (such as tropical rain forests). In areas with low rainfall, there is an accumulation of salts (**Salinization**).
- **Statement 2 is correct:** Humus makes the soil sponge-like, which increases water holding capacity and provides nutrition to microorganisms.
- **Statement 3 is correct:** Bacteria like Rhizobium live in the roots of leguminous plants and convert atmospheric nitrogen into nitrates.

**Question 56:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** This amendment has been brought to regulate the trade of species according to the Appendices of CITES.
- **Statement 2 is correct:** The schedules have now been rationalized. There is no separate schedule for Vermin anymore; the Central Government can declare a species as such for a fixed time.
- **Statement 3 is correct:** Kuno is primarily an area with open forests and grasslands, which is favorable for the movement of cheetahs.

**Question 57:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** This area has been chosen as a potential home for cheetahs due to its unique ecosystem.
- **Statement 2 is correct:** '**Ganda Baval**' (**Prosopis juliflora**) was planted to save pastures, but now it has become an invasive weed that is destroying local grasses.
- **Statement 3 is correct:** The Maldhari community has recently been given their rights historically, so that they can manage their pastures.

**Question 58:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** This Act limits the judgment of the

1996 '**Godavarman Case**' which had made the definition of '**Forest**' very broad. Now it is applicable only to recorded forests.

- **Statement 2 is correct:** Rules have been relaxed for infrastructure in border areas (**100 km**) for security and strategic reasons.
- **Statement 3 is correct:** Zoos and safaris are now allowed on forest land to promote conservation and tourism.

**Question 59:** Answer: (c) All three pairs Explanation:

- **GIB:** Found in Rajasthan (**Desert National Park**). Number is less than 150, hence it is Critically Endangered.
- **Sangai:** Found only on floating Phumdis in Keibul Lamjao (**Manipur**). It is Endangered.
- **Hangul:** It is the state animal of Kashmir and is found only in Dachigam. It is Critically Endangered.

**Question 60:** Answer: (c) All three Explanation:

- **GTF:** Its secretariat is in New Delhi and it works for tigers at a global level.
- **Stockholm Convention:** This is for the control of POPs like the '**Dirty Dozen**' (e.g., DDT) that accumulate in the Food Chain.
- **CMS (Bonn Convention):** India is an active member of this and is part of MoUs for migratory birds (**Cranes**) and turtles.

**Question 61:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** According to the formula:  $GDP = GVA + \text{Indirect Taxes} - \text{Subsidies}$ . If subsidies increase significantly due to schemes like PLI, the GDP value will grow at a lower rate compared to GVA.
- **Statement 2 is correct:** Since 2015, India has changed its methodology. Now "**Headline GDP**" is measured at '**Market Prices**', which is the global standard.
- **Statement 3 is correct:** Income from service exports makes the '**Net Foreign Factor Income**' (**NFIA**) positive, which reduces the gap between GDP and GNP.

**Question 62:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** GDP Deflator includes all domestic goods/services, while CPI includes only a basket. Since the deflator focuses only on '**domestic product**', it does not directly include imported inflation (like global crude oil prices).
- **Statement 2 is correct:** If crude oil prices rise, '**Nominal GDP**' (current price) will increase, but '**Real GDP**' (constant price) might fall because rising input costs will negatively impact production and consumption.
- **Statement 3 is incorrect:** The formula for ICOR (**Incremental Capital Output Ratio**) is:  $\text{Capital Investment} / \text{Increase in GDP}$ . If investment (capital formation) is falling and GDP is stable, it means the same output is being produced with less capital, indicating high efficiency. (In the question, it could have been considered correct instead of 'incorrect', but 'improvement in ICOR' means a 'decrease in ICOR'). Correction: Statement 3 is also correct because a decrease in ICOR is efficiency. Hence option (c) is also possible, but technically '**two**' is considered more accurate if the mathematical decline of ICOR is observed.



# Vedanta IAS Academy

India's No.1 Institute For UPSC Exam

**Question 63:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** I-CRR (**Incremental CRR**) was recently used to absorb the excess liquidity in banks after the return of ₹2000 notes.
- **Statement 2 is correct:** An increase in the repo rate makes it expensive for banks to borrow money, which increases interest rates (**Yields**) in the market.
- **Statement 3 is incorrect:** Money raised under the Market Stabilization Scheme (**MSS**) stays in a separate account of the RBI. The government cannot use it for its spending or to fill the fiscal deficit.

**Question 64:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** Increasing the risk weight on unsecured loans (**like personal loans**) requires banks to set aside more capital (**Capital Adequacy**), leading to caution in lending.
- **Statement 2 is incorrect:** An increase in risk weight decreases the lending capacity of banks because they now have to set aside more capital per loan.
- **Statement 3 is correct:** Currently, deposits are growing less and credits more; to prevent this imbalance, the RBI has taken this strict step.

**Question 65:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** If people keep their money directly in '**digital wallets**' (**e-Rupee**) instead of bank accounts, the deposit amount for banks to lend will decrease (**Disintermediation**).
- **Statement 2 is correct:** Wholesale CBDC makes transactions between banks instant and cheaper without any third party.
- **Statement 3 is correct:** E-rupee can be '**programmed**' (e.g., **agricultural subsidy used only to buy fertilizer**), which will reduce corruption.

**Question 66:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** According to RBI rules, money raised from '**Green Deposits**' can only be invested in environmental projects like renewable energy.
- **Statement 2 is incorrect:** Through the '**Sale**' of securities under OMO, the RBI absorbs money from the market, which reduces money supply and increases interest rates.
- **Statement 3 is correct:** ALM mismatch is a major problem in India's banking sector (**especially infrastructure loans**), where money gets stuck for a long time while depositors are short-term.

**Question 67:** Answer: (b) Only two Explanation:

- **Statement 1 is incorrect:** PCA framework applies to both Public Sector (**PSBs**) and Private Sector (**Private Banks**). (**Recently it has been extended to NBFCs as well**).
- **Statement 2 is correct:** CRAR, Net NPA and RoA are the parameters on which a bank's health is checked.
- **Statement 3 is correct:** Once under PCA, a bank is restricted from distributing dividends and expanding so that it can improve its financial condition.

**Question 68:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** MSF is 0.25% above repo and is used for emergency liquidity.

- **Statement 2 is correct:** The biggest feature of SDF (**Standing Deposit Facility**) is that it allows absorbing liquidity without '**collateral**' (**government bonds**).
- **Statement 3 is correct:** Through '**Purchase**' under OMO, the RBI injects money into the market, which increases liquidity.

**Question 69:** Answer: (c) All three Explanation:

- **Accommodative Stance:** When the priority is '**Growth**'.
- **Withdrawal of Accommodation:** When there is excess money in the market and inflation is rising.
- **Neutral Stance:** When the RBI cannot decide whether rates will increase or decrease next time (**Data-dependent**).

**Question 70:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** Section 47 of the RBI Act provides this legal basis.
- **Statement 2 is correct:** The Bimal Jalan Committee determined this buffer (**5.5% - 6.5%**) so that the RBI remains safe during economic shocks.
- **Statement 3 is correct:** This money is considered a Revenue Receipt of the government, which helps in reducing the budgetary deficit.

**Question 71:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** Through '**Rationing of Credit**', the RBI can fix the upper limit of credit for various sectors (**like luxury goods or real estate**) for commercial banks so that bubbles do not form in sensitive parts of the economy.
- **Statement 2 is correct:** '**Moral Suasion**' is a psychological tool. The RBI Governor persuades banks to reduce interest rates or limit credit expansion through meetings.
- **Statement 3 is correct:** '**Margin Requirement**' is the difference that banks maintain between the value of the mortgaged item and the loan provided. If the RBI increases the margin, the borrower gets less money, which reduces liquidity in the market.

**Question 72:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** It takes time for the benefit of the change in repo rate by banks to reach customers, which is called '**Transmission Lag**'.
- **Statement 2 is correct:** Banks in India depend on Fixed Deposits whose rates are locked. Until the cost of deposits decreases, banks cannot reduce their Lending Rates.
- **Statement 3 is correct:** Under EBLR (**External Benchmark Lending Rate**), it is mandatory for banks to link their loan rates to an external benchmark (**like repo rate**), which has increased transparency and speed.

**Question 73:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** '**Special Rupee Vostro Account**' (**SRVA**) provides foreign banks the facility to keep Rupee deposits in India, through which they can trade directly in Rupee with countries like Russia.
- **Statement 2 is correct:** Internationalization of the Rupee reduces dependence on the Dollar and decreases exchange rate risk, but if there is very high demand or supply of the Rupee in foreign markets, it becomes difficult for the RBI to control domestic interest rates and inflation.
- **Statement 3 is incorrect:** Full '**Capital Account**



Since:1997

# Vedanta IAS Academy

India's No.1 Institute For UPSC Exam

**Convertibility' (CAC)** has not yet been achieved in India. In India, currently **'Current Account'** is fully convertible, while capital account is only partially convertible.

**Question 74:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** This is a situation where a country moves from low-income to middle-income but is unable to reach the ranks of high-income developed countries because it neither has cheap labor nor advanced technology left.
- **Statement 2 is correct:** People in India are moving directly from agriculture to the Services sector, whereas historically Manufacturing sector provides high productivity and employment. This can create a difference in productivity.
- **Statement 3 is correct:** Increasing **'Total Factor Productivity' (TFP)** means—producing more with the same resources (**labor and capital**), which is possible only through innovation and education (**human capital**).

**Question 75:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** The EU's CBAM will impose customs duties on **'carbon-intensive'** products like steel, cement, and aluminum, making Indian exports expensive.
- **Statement 2 is correct:** The CBDR (**Common But Differentiated Responsibilities**) principle says that developed countries should take more responsibility. CBAM challenges the right to development of developing countries by imposing equal taxes on everyone.
- **Statement 3 is correct:** India is bringing its own **'carbon credit trading'** system so that Indian companies can pay tax here, which could allow them to get exemptions abroad.

**Question 76:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** Those working on platforms like Zomato and Swiggy are considered **'independent contractors'**, due to which they do not receive traditional benefits like Provident Fund (PF) or Gratuity.
- **Statement 2 is correct:** Digital platforms decide who gets work based on **'algorithms'**, which reduces the bargaining power of workers.
- **Statement 3 is correct:** Rajasthan has become the first state in India to enact a law for the social security and registration of gig workers.

**Question 77:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** If a startup sells shares at a price higher than its **'Fair Market Value' (FMV)**, that extra amount was treated as **'income'** and taxed.
- **Statement 2 is correct:** This was abolished in Budget 2024 so that startups can access capital easily.
- **Statement 3 is incorrect:** Angel Tax was initially applicable only to domestic investors, but after the 2023 amendment, it was extended to foreign investors as well. Now it has been removed for everyone.

**Question 78:** Answer: (d) 1, 2 and 3 Explanation:

- **Statement 1 is correct:** Traditional vaccines involve injecting parts of a pathogen, while mRNA vaccines only provide the **'code'** so that the body's cells themselves produce protective proteins.
- **Statement 2 is correct:** This technology not only produces

antibodies but also trains T-cells, which destroy virus-infected cells.

- **Statement 3 is correct:** Since it contains no actual live virus, there is absolutely no risk of causing a vaccine-induced infection.

**Question 79:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** CRISPR can be used like **'scissors'** to remove faulty genes or add new ones.
- **Statement 2 is correct:** Editing in Somatic cells is not passed to the next generation, but Germline editing changes the DNA of future generations forever.
- **Statement 3 is correct:** India allows embryo editing for research, but its clinical use is prohibited to prevent unethical practices like **'designer babies'**.

**Question 80:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** Due to the wrong use of antibiotics, weak bacteria die and only the strong (**resistant**) ones survive, which reproduce to create **'superbugs'**.
- **Statement 2 is correct:** In iPSCs technology, a patient's own skin or blood cells are converted into stem cells, so the body does not reject it as a foreign substance during organ transplantation.
- **Statement 3 is correct:** **'One Health'** means—the health of humans, animals, and the environment is interconnected. Antibiotic residues flowing in water play a major role in making bacteria resistant.

**Question 81:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** SSLV (**Small Satellite Launch Vehicle**) is designed for **'launch on demand'**. All three of its stages are solid stages, allowing it to be assembled in very little time and cost.
- **Statement 2 is correct:** LVM3 (**formerly known as GSLV Mk-III**) is India's most powerful rocket. Its upper stage **'C25'** is an indigenous cryogenic engine that carries heavy satellites to GTO.
- **Statement 3 is incorrect:** NGLV (**Next Gen Launch Vehicle**) will indeed be reusable, but there are plans to use **'Methane-Liquid Oxygen' (Methalox)** as fuel instead of **'methanol'**.

**Question 82:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** Agni-V is India's first ICBM. In March 2024, its MIRV version, which can carry multiple warheads simultaneously, was tested under **'Mission Divyastra'**.
- **Statement 2 is correct:** AD-1 is a long-range interceptor missile that can destroy enemy missiles both inside (**Endo**) and outside (**Exo**) the atmosphere.
- **Statement 3 is correct:** **'Pralay'** is a surface-to-surface quasi-ballistic missile. It is capable of changing its path, making it difficult to intercept.

**Question 83:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** Aditya-L1 was launched in September 2023. It is placed at the L1 point because from here, there is never an eclipse on the Sun and it can be observed 24 hours a day.
- **Statement 2 is correct:** The XPoSAt mission was launched in January 2024. It is the world's second mission after



# Vedanta IAS Academy

India's No.1 Institute For UPSC Exam

NASA's IXPE that will study X-ray polarimetry.

- **Statement 3 is correct:** LUPEX (**Lunar Polar Exploration**) is a joint mission of ISRO and the Japanese agency JAXA. It will search for water in the dark parts (**permanently shadowed regions**) of the Moon.

**Question 84:** Answer: (d) 1, 2 and 3 Explanation:

- **Statement 1 is correct:** Skyroot Aerospace's 'Vikram-S' became India's first private rocket.
- **Statement 2 is correct:** Agnikul Cosmos has developed a 3D printed engine called 'Agnilet'. Their rocket 'Agnibaan' is based entirely on liquid fuel.
- **Statement 3 is correct:** IN-SPACe (**In-Space**) is the gateway that facilitates private companies to use ISRO's facilities and grants licenses for space activities.

**Question 85:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** In the TV-D1 test (**October 2023**), the success of the Crew Escape System was checked. This safely carries astronauts away in the event of a rocket explosion.
- **Statement 2 is correct:** 'Vyommitra' is a half-humanoid robot that will tell what effect the space environment will have on the human body (**such as respiration, blood pressure**).
- **Statement 3 is correct:** Gaganyaan's goal is to take 3 members to a 400 km orbit (**LEO**) for 3 days and ensure a safe landing in the Indian sea area.

**Question 86:** Answer: (b) Only two Explanation:

- **Statement 1 is incorrect:** OCI cardholders have the right to business and residence in India, but they cannot purchase agricultural land or plantation property.
- **Statement 2 is correct:** The government can cancel OCI registration if the cardholder is found guilty or accused of any such offense involving imprisonment for 2 years or more (**provisions have been made stricter in the context of the bill/amendment**).
- **Statement 3 is correct:** It started in 2005 and in 2015 the PIO (**Person of Indian Origin**) card was merged into OCI.

**Question 87:** Answer: (a) Only 1 and 2 Explanation:

- **Statements 1 and 2 are correct:** This proposed bill (**in the context of hypothetical/proposed law**) has been brought to prevent 'executive vacuum'. If any Chief Minister or PM stays in jail for more than 30 days, he/she will have to leave the post. This will affect Art. 75 (**Centre**), 164 (**State**), and 239AA (**Delhi**).
- **Statement 3 is incorrect:** There is a provision for 'automatic removal' in the bill, but putting a 'complete ban' on reappointment after being acquitted would be a violation of democratic rights; hence, such a harsh provision generally does not exist.

**Question 88:** Answer: (c) All three Explanation:

- **Statement 1 is correct:** India's Blue Economy (**fisheries, shipping, marine minerals**) contributes about 4% to the GDP.
- **Statement 2 is correct:** India has a vast coastline of more than 7,500 km and an EEZ (**Exclusive Economic Zone**) of 2.37 million square km.

- **Statement 3 is correct:** Lack of coordination in maritime matters is the biggest challenge as it involves several ministries like Fisheries, Shipping, Defense, and Environment.

**Question 89:** Answer: (b) Only 1 and 2 Explanation:

- **Statement 1 is correct:** The government has announced to bring a new act like a simplified '**Direct Tax Code**' by changing the old 1961 law, which is expected to be effective from 2026.
- **Statement 2 is correct:** In the new law, Crypto and NFT (**Virtual Digital Assets**) have been clearly included under the tax net.
- **Statement 3 is incorrect:** MAT (**Minimum Alternate Tax**) provisions are still part of the corporate tax structure so that '**zero tax companies**' do not remain outside the tax net.

**Question 90:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** According to the new RBI rules, a Small Finance Bank needs a successful track record of 5 years to become a Universal Bank.
- **Statement 2 is correct:** The bank's Net Worth should be at least ₹1,000 crore.
- **Statement 3 is incorrect:** It is not mandatory to change the promoters, although the RBI can impose rules to reduce (**Dilute**) the promoter's stake.

**Question 91:** Answer: (c) Only 1 and 3 Explanation:

- **Statement 1 is correct:** The core mantra of the Defence Acquisition Procedure (**DAP**) 2020 is '**Atmanirbhar Bharat**', in which '**Buy (Indian)**' is given the highest priority over foreign procurement.
- **Statement 2 is incorrect:** Only 74% FDI is allowed through the '**Automatic Route**' in the defense sector. Government permission (**Government Route**) is required for 100% FDI.
- **Statement 3 is correct:** Positive Indigenisation Lists are lists of equipment that cannot be imported after a certain period, ensuring a market for the domestic defense industry.

**Question 92:** Answer: (b) Only two Explanation:

- **Statement 1 is correct:** The government has proposed a new act to simplify the old 1961 law, aiming to be effective from April 2026.
- **Statement 2 is correct:** In the new tax system, virtual digital assets like cryptocurrency and NFT have been explicitly kept under the ambit of '**undisclosed income**'.
- **Statement 3 is incorrect:** MAT (**Minimum Alternate Tax**) provisions are still mandatory for corporates so that they do not remain in a zero-tax status despite large profits.

**Question 93:** Answer: (d) 1, 2 and 3 Explanation:

- **Statement 1 is correct:** The basic objective of Sagarmala is to undertake Port-led development so that logistics costs are reduced.
- **Statement 2 is correct:** Sagarmala 2.0 (**2025**) is now focused on the revival of old infrastructure and achieving global capacity in shipbuilding.
- **Statement 3 is correct:** Due to heavy investment in Coastal Shipping over the last decade, an increase of more than



# Vedanta IAS Academy

India's No.1 Institute For UPSC Exam

50% in its capacity and utilization has been recorded.

**Question 94:** Answer: (c) All three pairs Explanation:

- **Pair 1 Correct:** 'Equator Initiative Award' is given by UNDP to those communities that reduce poverty through biodiversity conservation.
- **Pair 2 Correct:** Avaza Program (APOA) is specifically for those countries (Landlocked Developing Countries) that do not have direct access to the sea.
- **Pair 3 Correct:** Sovereign Credit Rating is an indicator of a country's reliability in repaying debt.

**Question 95:** Answer: (d) 1, 2 and 3 Explanation:

- **Statement 1 is correct:** India's first commercial Earth Observation Mission is based on the PPP model in collaboration with startups like Pixxel.
- **Statement 2 is correct:** The government is providing a financial allocation (Grant) of ₹350 crore to increase private participation in this sector.
- **Statement 3 is correct:** These satellites will perform 'Hyperspectral' imaging (for soil fertility and mineral checking) and will be equipped with SAR sensors (which can see through clouds and darkness).

**Question 96:** Answer: (b) Only 1 and 2 Explanation:

- **Statement 1 is correct:** BCI reads the electrical waves of the brain and converts them into digital commands.
- **Statement 2 is correct:** 'Brainprints' (mental passwords) is a novel security technology where a person's unique thoughts become their identity.
- **Statement 3 is incorrect:** There are two types of BCI: Invasive (implanted via surgery) and Non-invasive (sensors worn on the head/EEG caps). Therefore, it is not limited only to surgery.

**Question 97:** Answer: (c) Only 1 and 3 Explanation:

- **Statement 1 is correct:** FASTag uses RFID (Radio Frequency Identification) technology.
- **Statement 2 is incorrect:** The current facility of an 'annual pass' is usually in the form of a monthly pass for local residents or specific routes. A "one-time annual pass" facility for unlimited toll crossings across India has not yet been formally implemented.
- **Statement 3 is correct:** In RFID, communication between the reader and the tag happens through radio waves, due to which the vehicle does not have to stop.

**Question 98:** Answer: (b) Only 1 and 3 Explanation:

- **Statement 1 is correct:** Tulsidas Ji is considered a prominent saint of the Ramanandacharya tradition.
- **Statement 2 is incorrect:** Ramcharitmanas was composed in the Awadhi language, not Braj Bhasha. (However, he wrote 'Kavitavali' and 'Vinayapatrika' in Braj).
- **Statement 3 is correct:** He was a poet of the Saguna Bhakti stream who worshipped the manifest (Sakar) form of God (Ram).

**Question 99:** Answer: (c) All three Explanation:

- **Pair 1 Correct:** Sundarbans (STR) is located in West Bengal and is famous for the Bengal Tiger.
- **Pair 2 Correct:** 'Matri Van' initiative has been started in Gurugram (Haryana) to increase urban forestry and green cover.
- **Pair 3 Correct:** The Etalin project is a controversial (due to environmental reasons) hydroelectric project located in the Dibang Valley, Arunachal Pradesh.

**Question 100:** Answer: (D) 1, 2 and 3 Explanation:

- **Statement 1 is correct:** He was the elder brother of Sardar Patel. He played a key role in the formation of the Swaraj Party along with Motilal Nehru and Chittaranjan Das.
- **Statement 2 is correct:** He served as the Mayor of Bombay Municipal Corporation.
- **Statement 3 is correct:** He was elected as a member of the Imperial Legislative Council in 1918. In August 1925, he became the first Indian President (Speaker) of the Central Legislative Assembly, the centenary of which is being celebrated now.