Bihar Police Constable Memory Based Mock (16 July 2025)

Q1. Where did Exercise Varuna 2025, the 23rd edition of the India-France bilateral naval exercise, take place?
(a) Bay of Bengal
(b) Arabian Sea
(c) Indian Ocean
(d) South China Sea

Ans: B

Sol:

Ans. (b)

Exercise Varuna 2025, the 23rd edition of the bilateral naval exercise between India and France, was conducted in the Arabian Sea from March 19 to March 22, 2025. The Arabian Sea, located on India's western coast, is of immense strategic importance for both countries due to its proximity to major sea lanes, oil trade routes, and naval operations bases.

This edition of Varuna focused on high-tempo naval operations, including anti-submarine warfare, air defence drills, surface engagement tactics, maritime interdiction, and coordinated patrols. Both navies deployed advanced warships, submarines, maritime patrol aircraft, and carrier-based assets, enhancing their operational synergy.

The Arabian Sea was chosen not only for strategic depth but also due to its relevance to India's western maritime command and France's presence in the western Indian Ocean (including bases in Djibouti and Réunion Island). The timing and location underline both countries' commitment to securing the Indo-Pacific and maintaining freedom of navigation and maritime order.

Information Booster

•→Exercise Varuna 2025 held from March 19–22, 2025.
•→Conducted in the Arabian Sea, off the western coast of India.
•→Involved high-end naval warfare training and interoperability drills.
•→Part of the India-France strategic maritime partnership.
•→Strengthens commitment to a free, open, and inclusive Indo-Pacific.
•→France maintains naval bases in the western Indian Ocean region.

Additional Knowledge

(a) Bay of Bengal, February 10–14, 2025 – Incorrect. While India does conduct naval drills in the Bay of Bengal (such as Malabar), Exercise Varuna 2025 was not held here. Earlier editions have rotated between the Bay of Bengal and Arabian Sea.

(b) Arabian Sea, March 19–22, 2025 – Correct. The Arabian Sea was the official location of Varuna 2025, chosen due to its strategic importance and naval accessibility. It supports Indo-French naval collaboration in the western Indian Ocean region.

(c) Indian Ocean, January 5–9, 2025 – Incorrect. While the Indian Ocean is part of the wider Indo-Pacific strategy, this specific edition of Varuna took place in the Arabian Sea, which is a subregion of the Indian Ocean.

(d) South China Sea, March 1–5, 2025 – Incorrect. India does not conduct bilateral exercises like Varuna in the South China Sea, a region marked by territorial tensions. The Arabian Sea is a more secure and strategic operational theatre for Indo-French collaboration.

Q2. From which space center did Group Captain Shubhanshu Shukla begin his ascent to the International Space Station on 25 June 2025?
(a) Vandenberg Space Force Base
(b) Kennedy Space Center
(c) Baikonur Cosmodrome
(d) Guiana Space Centre

Ans: B

Sol:

The correct answer is option (b) Kennedy Space Center.

Explanation

1. SpaceX Launch Site:

•→Group Captain Shubhanshu Shukla began his ascent to the International Space Station (ISS) on 25 June 2025 at 12:01 pm IST from Launch Complex 39A at Kennedy Space Center, located in Florida, USA.

2. Significance:

•→This mission marked the second time an Indian has ventured into space and the first Indian to live and work onboard the ISS, representing a significant milestone in space exploration for India.

3. Kennedy Space Center:
•→Kennedy Space Center is one of the most famous spaceports in the world, primarily used by NASA and SpaceX for crewed missions to the ISS. The Falcon 9 Block 5 rocket used in this mission was launched from Launch Complex 39A, a historically significant site.
Information Booster
•→Vandenberg Space Force Base (Option a) is located in California and is primarily used for polar orbit launches.
•→Baikonur Cosmodrome (Option c) is located in Kazakhstan and was used for Soviet and Russian space missions but is unrelated to this particular launch.
•→Guiana Space Centre (Option d) is in French Guiana and is used for launches by the European Space Agency and other international organizations.
Additional Knowledge
•→Kennedy Space Center is famous for launching NASA's Apollo missions and Space Shuttle program. It is a key site for SpaceX launches as well, including those to the International Space Station.

Q3. Which river intersects the Tropic of Cancer twice?
(a) Yamuna
(b) Ganga
(c) Godavari
(d) Mahi
Ans: D
Sol:
Ans. (d) Mahi
Sol. The Mahi River is the river that intersects the Tropic of Cancer twice. It flows through the states of Madhya Pradesh, Rajasthan, and Gujarat in India. The Tropic of Cancer crosses the Mahi River two times, making it unique among Indian rivers. The Mahi is a west-flowing river, which eventually drains into the Arabian Sea.
Information Booster:
1. The Mahi River has a total length of about 580 kilometers, making it a major river in western India.
2. It originates from the Madhya Pradesh region and flows through Rajasthan and Gujarat before emptying into the Arabian Sea.
3. The Mahi River is an important source of water for agriculture and irrigation in the states it flows through, especially in Gujarat.
4. The Mahi Bajaj Sagar Dam, located in Rajasthan, is an important water reservoir on the river.
5. The Mahi is also known for its significance in traditional water management systems in Gujarat and Rajasthan.
6. The river is named after the "Mahi" which is believed to be derived from the Sanskrit word "Mahi" meaning "earth" or "the earth's essence."

Q4. Which river is known as the sorrow of Bihar?
(a) Mahi
(b) Betwa
(c) Son
(d) Kosi
Ans: D
Sol:
The correct answer is (d) Kosi.
•→The Kosi River is known as the "Sorrow of Bihar" due to its frequent and devastating floods that cause extensive damage to life, property, and agriculture in the region.
•→The river carries a large amount of sediment, which leads to frequent changes in its course and breaches in its embankments, resulting in floods.
•→The flooding of the Kosi River has been a perennial problem for Bihar, affecting millions of people over the years.
Information Booster:
•→Mahi: This river flows through Madhya Pradesh, Rajasthan, and Gujarat, and is not known for causing significant flooding issues.
•→Betwa: This river flows through Madhya Pradesh and Uttar Pradesh.
•→Son: This river flows through Madhya Pradesh, Uttar Pradesh, and Bihar.

Q5. Utkal Divas, also known as Odisha Foundation Day, is celebrated annually on which date?
(a) March 31
(b) April 1
(c) April 13
(d) May 1

Ans: B

Sol:

Ans. (b)

Utkal Divas, or Odisha Foundation Day, is celebrated every year on April 1st to mark the formation of the state of Odisha in 1936. On this day, Odisha was carved out of the Bihar and Orissa Province and became a separate administrative unit under British India. It is a day of immense pride for the Odia community, symbolizing the recognition of their unique linguistic and cultural identity. The state was created after persistent efforts by visionaries like Madhusudan Das, Gopabandhu Das, and Krushna Chandra Gajapati, who advocated for a unified province for Odia-speaking people. April 1st is observed with parades, cultural programs, and tributes across the state.

Information Booster

•→Utkal Divas is celebrated on April 1st every year.
•→It marks the formation of Odisha in 1936.
•→Odisha was separated from Bihar and Orissa Province.
•→The movement was led by Madhusudan Das and others.
•→Celebrations include cultural events and tributes across the state.
•→Odisha was the first province in British India formed on a linguistic basis.

Q6. Which religion has the highest literacy in Bihar?
(a) Hindu
(b) Jain
(c) Buddhist
(d) Christian

Ans: B

Sol:

The religion with the highest literacy rate in Bihar, according to the 2011 Census of India, is Jainism.

While Bihar's overall literacy rate stood at 61.80% in 2011, Jains exhibited the highest literacy rate among major religious groups at 94.1%. They were followed by Christians (80.3%) and Buddhists (72.7%). Hindus had a literacy rate of 65.1%, slightly higher than the national average but lower than that of Jains, Christians, Buddhists, and Sikhs. Muslims had the highest percentage of illiterates aged seven and above at 42.72%.

Q7. Which day is celebrated as the World Ozone Day ?
(a) 16th September
(b) 20th October
(c) 21st November
(d) 12th December

Ans: A

Sol:

The correct answer is (a) 16th September

Explanation:

World Ozone Day is celebrated on 16th September every year. This day is observed to raise awareness about the importance of the ozone layer and the need to protect it from depletion caused by harmful substances like chlorofluorocarbons (CFCs).

Information Booster:

- World Ozone Day marks the anniversary of the Montreal Protocol, which was signed on 16th September 1987 to protect the ozone layer by phasing out substances that deplete it.
- The ozone layer is crucial for life on Earth, as it shields us from harmful ultraviolet (UV) radiation from the sun.
- The Montreal Protocol is considered one of the most successful international environmental agreements, leading to a significant reduction in the use of ozone-depleting chemicals.
- The day is a reminder of the global efforts to protect the ozone layer and mitigate the effects of climate change.

Additional Information:

- 20th October: This date is not associated with World Ozone Day.

- 21st November: This is not a recognized day for ozone awareness.
- 12th December: 12th December is the date for UN Day for Human Rights, not for ozone awareness.

Q8. Who represented the Congress in the second round table conference held in London?
(a) Mahatma Gandhi
(b) Jawaharlal Nehru
(c) Vallabhbhai Patel
(d) Lal Bahadur Shastri

Ans: A

Sol:

The correct answer is (a) Mahatma Gandhi.

•→Mahatma Gandhi represented the Indian National Congress at the Second Round Table Conference held in London in 1931.

•→The conference was convened to discuss constitutional reforms in India and involved representatives from British India and the princely states. Gandhi attended as the sole representative of the Congress Party, advocating for India's independence and the end of the British Raj.

Information Booster:

Round Table Conferences:

•→Three Round Table Conferences were held between 1930 and 1932 in London to discuss constitutional reforms in India.

•→The First Round Table Conference (1930) did not have representation from the Congress Party as they were engaged in the Civil Disobedience Movement.

•→The Second Round Table Conference (1931) saw Gandhi's participation after the Gandhi-Irwin Pact, which temporarily ended the Civil Disobedience Movement.

•→The Third Round Table Conference (1932) was not attended by the Congress Party due to their ongoing civil disobedience activities.

Q9. Karachi session of Indian National Congress was held in 1931. It was presided over by:
(a) Mahatma Gandhi
(b) Jawaharlal Nehru
(c) Dr. BR Ambedkar
(d) Sardar Patel

Ans: D

Sol:

The correct answer is (D) Sardar Patel

- Sardar Vallabhbhai Patel was an important leader in India's struggle for independence.
- Patel was known as the "Iron Man of India" because of his strong leadership and determination. He worked tirelessly to bring together the various princely states into one united India.
- As India's first Deputy Prime Minister and Home Minister, Patel's efforts were critical in establishing the country's political unity.
- He is also remembered for his role in the integration of states and his contribution to the nation's development.

Information booster:

Dr. BR Ambedkar

- Dr. B.R. Ambedkar was a prominent Indian leader, social reformer, and the principal architect of the Indian Constitution.
- He played a vital role in drafting the Constitution of India, ensuring that it guaranteed fundamental rights and social justice.
- Dr. Ambedkar is remembered as a champion of human rights and social reform in India.

Jawaharlal Nehru

- Jawaharlal Nehru was the first Prime Minister of India, serving from 1947 until his death in 1964.
- Nehru assumed the presidency of the Congress party during the Lahore session on 29 December 1929 and introduced a successful resolution calling for complete independence.
- His birthday, November 14, is celebrated as Children's Day in India, honoring his love for children and education.

Mahatma Gandhi

- Gandhi led several important movements, such as the Salt March and the Quit India Movement, to oppose British rule.
- His birthday, October 2, is celebrated as Gandhi Jayanti and is observed as the International Day of Non-Violence.
- In 1924, Mahatma Gandhi presided over the Belgaum session of the Indian National Congress.

Q10. National Education Day is observed on 11 November to celebrate the birthday of which Indian leader?
(a) Maulana Abul Kalam Azad
(b) Sarvepalli Radhakrishnan
(c) Subhash Chandra Bose
(d) APJ Abdul Kalam

Ans: A

Sol:

The correct answer is (A) Maulana Abul Kalam Azad.

Explanation: National Education Day is celebrated on 11 November to honor the birthday of Maulana Abul Kalam Azad, the first Minister of Education in independent India.

Incorrect Options Explanations:

- (B) Sarvepalli Radhakrishnan: Celebrated on 5th September as Teachers' Day.
- (C) Subhash Chandra Bose: Celebrated on 23rd January as Netaji Jayanti.
- (D) APJ Abdul Kalam: Celebrated on 15th October as World Students' Day.

Information Booster:

- Maulana Abul Kalam Azad: First Education Minister of India, key figure in promoting education and science.
- Major Contributions: Established IITs, championed primary education, and advocated for scientific development.
- Awards: Posthumously awarded Bharat Ratna in 1992.
- Born: 11 November 1888, Mecca, Saudi Arabia.
- Died: 22 February 1958, New Delhi, India.

Q11. Which of the following Article of Indian constitution explains the office of the comptroller and Auditor General of India?
(a) Article 165
(b) Article 125
(c) Article 368
(d) Article 148

Ans: D

Sol:

The correct answer is (d) Article 148

Explanation:

- Article 148 of the Indian Constitution provides for the establishment of the office of the Comptroller and Auditor General (CAG) of India.
- It outlines the appointment, term of office, conditions of service, and duties and powers of the CAG.
- The CAG is an independent authority responsible for auditing all receipts and expenditures of the Government of India and the state governments, including those of bodies and authorities substantially financed by the government.

Information Booster:

Constitutional and Legal Provisions Relating to the CAG of India

Provision	Description
Article 148	Appointment: CAG is appointed by the President by warrant under his hand and seal. Service Conditions: Salary and conditions of service are determined by Parliament through law. Ineligibility for Further Office: Not eligible for further office under the Central or State Government after tenure. Expenditure: All expenses of the CAG, including salaries, allowances, and pensions, are charged on the Consolidated Fund of India (CFI).
Article 149	Duties and Powers: To be prescribed by or under any law made by Parliament.

Article 150	Form of Accounts: The accounts of the Union and the States are to be maintained in a format prescribed by the President on the advice of the CAG.
Article 151	Audit Reports: Reports relating to Union accounts are submitted by the CAG to the President, who lays them before both Houses of Parliament.
Article 279	Certification of Net Proceeds: CAG certifies the net proceeds of any tax or duty. His certificate is final and binding. Net proceeds = Total collection minus cost of collection.
CAG (Duties, Powers & Conditions of Service) Act, 1971	Tenure: Holds office for 6 years or until the age of 65 years, whichever is earlier. Resignation: Can resign by addressing a letter to the President. Removal: Can be removed by the President in the same manner and on the same grounds as a Supreme Court Judge. Service Conditions: Determined by Parliament and cannot be altered to the CAG's disadvantage after appointment.

Additional Knowledge:

- Article 165: Deals with the Advocate General for the State.
- Article 125: Relates to the salaries, allowances, and privileges of Supreme Court judges.
- Article 368: Describes the procedure for constitutional amendments.

Q12. Article 17 of the Indian constitution is related with _____.

(a) Right to Education
(b) Abolition of Titles
(c) Abolition of Untouchability
(d) Equality before law

Ans: C

Sol:

The correct answer is (c) Abolition of Untouchability.

- Article 17 of the Indian Constitution deals with the Abolition of Untouchability. It declares that the practice of untouchability is abolished and forbids its practice in any form.
- It ensures that no person is discriminated against based on untouchability, and its enforcement as a social practice is considered a punishable offense under the law.

Information Booster:

- Right to Education falls under Article 21A, making free and compulsory education a fundamental right for children aged 6 to 14.
- Abolition of Titles is covered under Article 18, which prohibits the state from conferring titles, except for military and academic distinctions.
- Equality before law is provided under Article 14, which ensures that all citizens are treated equally before the law.

Q13. What does Article 164 of the Indian Constitution state about the appointment of the Chief Minister?

(a) The Chief Minister is elected by the legislative assembly of the state.
(b) The Chief Minister is appointed by the President of India.
(c) The Chief Minister is chosen through a referendum in the state.
(d) The Chief Minister shall be appointed by the Governor.

Ans: D

Sol:

The Correct Answer is:(D) The Chief Minister shall be appointed by the Governor.

Explanation:
Article 164 of the Indian Constitution states that the Chief Minister shall be appointed by the Governor of the state. However, the Governor must appoint the leader of the majority party or coalition in the State Legislative Assembly as the Chief Minister. This ensures that the person appointed has the confidence of the House.
Information Booster:
- The Governor administers the oath of office to the Chief Minister.
- The Chief Minister holds office during the pleasure of the Governor, but in reality, they stay in power as long as they have the majority in the assembly.
- The Council of Ministers is also appointed by the Governor on the advice of the Chief Minister.

Key Points:
- Discretion of Governor: If no party gets a clear majority, the Governor can use discretion to appoint a CM who can prove majority in the assembly.
- Tenure: The CM holds office during the pleasure of the Governor, but practically serves as long as they enjoy majority support in the assembly.
- Council of Ministers: The CM heads the Council of Ministers, which is collectively responsible to the Legislative Assembly.
- Governor's Role: The CM acts as the link between the Governor and the State Cabinet.

Q14. In which year was the third battle of Panipat Fought?
(a) 1761
(b) 1764
(c) 1576
(d) 1756

Ans: A
Sol:
Correct Answer:A. 1761
Explanation:
TheThird Battle of Panipatwas fought on14 January 1761between theMaratha Empireand theAfghan army led by Ahmad Shah Abdali (Durrani). It is considered one of thelargest and bloodiest battles of the 18th century. The Marathas, led bySadashivrao Bhau, faced a devastating defeat, which marked amajor turning pointin Indian history.
Information Booster:
- Location:Panipat, in present-dayHaryana.
- Ahmad Shah Abdaliwas supported byShuja-ud-Daula (Nawab of Awadh)andNajib-ud-Daula (Rohilla chief).
- The battle led to a significantdecline of Maratha powerin North India.
- This defeat created apower vacuum, which was later exploited by theBritish East India Company.
- The estimated death toll in the battle wasover 100,000, including civilians.

Additional Information:
- 1764– Incorrect; this was the year of theBattle of Buxar.
- 1576– Incorrect; year of theBattle of Haldighatibetween Akbar and Maharana Pratap.

Q15. Battle of Buxar was fought in _____.
(a) 1767
(b) 1757
(c) 1764
(d) 1774

Ans: C
Sol:
The correct answer is 1764.
The Battle of Buxar was fought on 22 October 1764 between the British East India Company, led by Major Hector Munro, and a combined army comprising Mir Qasim (the Nawab of Bengal), Shuja-ud-Daula (the Nawab of Awadh), and Shah Alam II (the Mughal Emperor). This battle was significant as it confirmed British control over Bengal and marked a turning point in Indian history, solidifying their political and military dominance in India.
Key points about the Battle of Buxar:
- It was a continuation of the conflict that followed the Battle of Plassey (1757), as Mir Qasim sought to resist British influence.
- The British victory diminished the authority of the Mughal Empire.

- The Treaty of Allahabad (1765) was signed after the battle, granting the British Diwani rights (revenue collection) over Bengal, Bihar, and Orissa.
- The battle paved the way for further British expansion and control over Indian territories.

Information Booster:

- Battle of Plassey (1757): This marked the start of British political control in India after defeating Siraj-ud-Daula.
- Mir Qasim: Nawab of Bengal who attempted to regain independence from the British but failed at Buxar.
- Shuja-ud-Daula: Nawab of Awadh who allied with Mir Qasim and the Mughal Emperor.
- Hector Munro: The British commander who led the East India Company's forces to victory in Buxar.

Q16. Which leader presided over the 1929 Lahore Session of the Indian National Congress, where the resolution for 'Purna Swaraj' was passed?

(a) Subhas Chandra Bose
(b) Jawaharlal Nehru
(c) Lala Lajpat Rai
(d) CR Das

Ans: B

Sol:

The correct answer is:(b) Jawaharlal Nehru

Explanation:

The 1929 Lahore Session of the Indian National Congress was presided over by Jawaharlal Nehru. It was during this session that the historic resolution for 'Purna Swaraj' (Complete Independence) was passed. The resolution called for complete independence from British rule and was a significant turning point in India's struggle for freedom. The session also marked the formal adoption of January 26, 1930, as Independence Day, when the first version of the declaration of independence was made.

Information Booster:

- The resolution for Purna Swaraj marked a shift in the Congress's approach, moving from seeking dominion status to demanding full independence from British rule.
- The Lahore Session was held on December 31, 1929, and was one of the most pivotal moments in the Indian freedom struggle.
- Jawaharlal Nehru played a central role in the freedom movement, and under his leadership, the Congress took a more radical stance towards British colonial rule.
- The Purna Swaraj resolution was later celebrated annually as Independence Day, with the first declaration on January 26, 1930, setting the stage for the Quit India Movement and the eventual independence of India in 1947.

Q17. When was the Rowlatt Act passed?

(a) 1920
(b) 1918
(c) 1919
(d) 1917

Ans: C

Sol:

The correct answer is option (c) 1919.

Explanation

The Rowlatt Act was passed in 1919 by the British colonial government in India. Officially called the Anarchical and Revolutionary Crimes Act, it was introduced by the then British Government to suppress the growing unrest and revolutionary activities in India.

The Act allowed the British authorities to arrest and detain individuals without trial and imposed severe restrictions on civil liberties, such as freedom of expression and assembly. The Rowlatt Act was widely opposed by Indian leaders and the general public, as it was seen as a repressive measure that curbed basic freedoms.

Information Booster

- The Rowlatt Act of 1919 was passed in response to the increasing nationalist movements and unrest in India during the First World War.
- Mohandas Gandhi launched a non-violent protest against the Act, which eventually led to the Rowlatt Satyagraha.
- The Act led to widespread protests and violence, culminating in the Jallianwala Bagh massacre in Amritsar in April 1919, where British troops opened fire on a peaceful gathering of people.
- The Rowlatt Act was one of the key events that led to the intensification of the Indian independence movement.

Q18. The famous Sonpur Mela, known for its cattle fair, is held on the banks of which river in Bihar?

(a) Ganga
(b) Gandak
(c) Kosi
(d) Sone

Ans: B

Sol:

The Sonpur Mela, one of the largest cattle fairs in Asia, is held on the banks of the Gandak River in the town of Sonpur, Bihar. It is also known as the Harihar Kshetra Mela and attracts people from all over India for its unique offerings, including the sale of livestock.

The fair is also called the Harihar Kshetra Mela, named after the Harihar Nath Temple in Sonpur, dedicated to Lord Vishnu. The Sonpur Mela has deep historical roots, believed to date back to the time of Chandragupta Maurya, when elephants and horses were bought and sold for warfare. It is not just a fair for commerce but a significant event that blends spirituality, tradition, and local culture.

Q19. Which fundamental right has Dr. Bhimrao Ambedkar called the soul of the Constitution?

(a) Right to freedom
(b) Right against oppression
(c) Right to equality
(d) Right to constitutional remedies

Ans: D

Sol:

(d) Right to constitutional remedies

Dr. Bhimrao Ambedkar, the principal architect of the Indian Constitution, referred to the Right to Constitutional Remedies as the "soul of the Constitution." This right is enshrined in Article 32 of the Indian Constitution, which provides individuals the right to move the Supreme Court for the enforcement of their fundamental rights. Dr. Ambedkar believed that without this right, the fundamental rights would be meaningless, as there would be no legal recourse to challenge their violation.

Information Booster:

1. Article 32 gives citizens the right to approach the Supreme Court directly for the enforcement of their fundamental rights.
2. This right ensures judicial protection against the violation of fundamental rights, safeguarding individual freedoms.
3. Dr. Ambedkar called it the "soul" of the Constitution because it empowers the judiciary to protect citizens' rights from any infringement.
4. The Supreme Court can issue orders such as writs (Habeas Corpus, Mandamus, Prohibition, Certiorari, and Quo Warranto) for the enforcement of rights.
5. Article 226 allows for similar remedies through High Courts, but Article 32 gives direct access to the Supreme Court.

Additional Information:

- Without the Right to Constitutional Remedies, the Constitution would lack an enforcement mechanism, leaving rights vulnerable to violation.
- Right to Constitutional Remedies is unique to India and ensures the supremacy of the Constitution.
- This right emphasizes the importance of the judiciary in protecting the fundamental rights of citizens.

Q20. In which state is Kanha Tiger Reserve located?

(a) West Bengal

(b) Uttarakhand

(c) Uttar Pradesh

(d) Madhya Pradesh

Ans: D

Sol:

The correct answer is (d) Madhya Pradesh

Explanation:

- Kanha Tiger Reserve is located in the state of Madhya Pradesh, India. It is one of the largest and most famous tiger reserves in the country, known for its significant population of tigers, along with various other species of wildlife.

Information Booster:

- Kanha Tiger Reserve is located in the Madhya Pradesh state, in the central part of India.
- The reserve is part of the Project Tiger initiative to conserve tigers and their habitats.
- It is home to a significant population of Royal Bengal tigers and other wildlife such as the barasingha, an endangered species.
- Kanha Tiger Reserve is also a UNESCO World Heritage Site.

Additional Knowledge :

- West Bengal : West Bengal has other wildlife sanctuaries, such as Sundarbans.
- Uttarakhand : Uttarakhand is home to Jim Corbett National Park, a famous tiger reserve.
- Uttar Pradesh : Uttar Pradesh has wildlife sanctuaries like Dudhwa National Park.

Q21. In which year was Delhi officially announced as the Capital of British India by then Emperor George V?

(a) 1911
(b) 1907
(c) 1913
(d) 1910

Ans: A

Sol:

The correct answer is (a) 1911.

•→In December 1911, during the Delhi Durbar, Emperor George V of Britain made the historic announcement that the capital of British India would be shifted from Calcutta (now Kolkata) to Delhi.

•→This decision was influenced by Delhi's historical significance and its strategic location.

•→The announcement marked a significant shift in the British administration's focus and led to the development of New Delhi, designed by British architects Sir Edwin Lutyens and Sir Herbert Baker.

Q22. Where did Mahatma Gandhi first apply the Satyagraha movement in India?

(a) Dandi
(b) Champaran
(c) Kheda
(d) Ahmedabad

Ans: B

Sol:

The correct answer is (B) Champaran.

Explanation:

Mahatma Gandhi first applied the Satyagraha movement in Champaran, Bihar, in 1917 to support indigo farmers who were being exploited under the Tinkathia system imposed by British landlords.

Information Booster:

- Champaran Satyagraha (1917) was Gandhi's first civil disobedience movement in India.
- The Tinkathia system forced farmers to cultivate indigo on 3/20th of their land for British planters.
- Gandhi's success in Champaran led to the abolition of the Tinkathia system and marked the beginning of his mass political involvement in India.
- This movement established non-violent resistance (Satyagraha) as a key tool in the freedom struggle.
- Rajendra Prasad, Anugrah Narayan Sinha, and Brajkishore Prasad assisted Gandhi in the movement.

Additional Knowledge:

Dandi (1930)

- Famous for the Salt March, where Gandhi protested against the British salt tax.

Kheda (1918)

- A peasants' movement in Gujarat, demanding tax relief during famine.

Ahmedabad (1918)

- Gandhi led the Ahmedabad Mill Workers' Strike, demanding better wages for textile workers.

Q23. In 1915, Mahatma Gandhi returned to India permanently from _____.

(a) USA
(b) Britain
(c) South Africa
(d) Kenya

Ans: C

Sol:

The correct answer is (c) South Africa.

•→In 1915, Mahatma Gandhi returned to India permanently from South Africa.

•→He had spent 21 years there, fighting for the civil rights of the Indian community and developing his philosophy of nonviolent resistance, known as Satyagraha.

Information Booster:

•→Early Life:

•→Born on October 2, 1869, in Porbandar, India.

•→Studied law at University College London.

•→Experiences in South Africa:

•→Gandhi moved to South Africa in 1893 to practice law.

•→He faced racial discrimination, which led him to become an activist for civil rights.

•→Founded the Natal Indian Congress in 1894.

•→Led campaigns against discriminatory laws, such as the Black Act and the Transvaal Asiatic Registration Act.

•→Developed the concept of Satyagraha, or nonviolent resistance.

•→Return to India:

•→Returned to India in 1915 and joined the Indian National Congress.

•→Led several significant movements, including the Non-Cooperation Movement (1920), the Salt March (1930), and the Quit India Movement (1942).

•→Assassination:

•→Assassinated on January 30, 1948, by Nathuram Godse.

Key Contributions:

•→Civil Rights Activism:

•→Advocated for the rights of Indians in South Africa and played a key role in the struggle for civil rights.

•→Independence Movement:

•→Became a prominent leader in the Indian independence movement, advocating for nonviolent resistance and civil disobedience.

•→Legacy:

•→Inspired global leaders and movements for civil rights and freedom, including Martin Luther King Jr. and Nelson Mandela.

•→Known as the "Father of the Nation" in India.

Q24. In which year was the Constitution (Tenth Amendment) Act, enacted?

(a) 1960

(b) 1961

(c) 1956

(d) 1971

Ans: B

Sol:

The correct answer is option (b) 1961

Explanation

The Constitution (Tenth Amendment) Act was enacted in 1961 to integrate the territory of Dadra and Nagar Haveli with the Union of India. This amendment was made to give effect to the people's repeated request for the region's integration, which had previously been under Portuguese colonial rule.

The amendment involved changes to the First Schedule of the Constitution, which was modified to include Dadra and Nagar Haveli as a Union Territory of India. It also amended Article 240 to allow the President of India to make regulations for the governance of the territory. This was a significant step in the post-independence consolidation of India's territories.

Information Booster

- The Tenth Amendment Act, 1961 integrated Dadra and Nagar Haveli into the Union of India.
- It amended the First Schedule to the Constitution to include the territory as a Union Territory.
- Article 240 was also amended to empower the President to make regulations for the governance of the newly integrated region.
- The amendment was a direct response to the Varishta Panchayat's request for the region's integration.

Q25. Where is the Niagara river found?
(a) India
(b) Australia
(c) North-America
(d) Japan
Ans: C
Sol:
Correct Answer: C. North-America
Explanation:
- The Niagara River is located in North America.
- It flows through the United States and Canada, connecting Lake Erie to Lake Ontario.
- The river is famous for the Niagara Falls, one of the most spectacular waterfalls in the world, which straddles the border between the U.S. (New York) and Canada (Ontario).

Information Booster:
- The Niagara Falls consists of three waterfalls: the Horseshoe Falls, the American Falls, and the Bridal Veil Falls.
- The Niagara River is also a source of hydroelectric power, with several power plants built along its course.

Q26. Which seas form the coast line of Ukraine?
(a) Black Sea and Sea of Azov
(b) Mediterranean Sea and Sea of Azov
(c) Mediterranean Sea and Black Sea
(d) Black Sea and Caspian Sea
Ans: A
Sol:
The correct answer is: (A) Black Sea and Sea of Azov
Explanation:
Ukraine has a coastline along the Black Sea and the Sea of Azov. The Black Sea lies to the south of Ukraine, while the Sea of Azov is located to the southeast. These seas play a crucial role in Ukraine's maritime trade and its access to international waters.
- The Black Sea is an important water body that borders countries like Turkey, Bulgaria, Romania, Ukraine, Russia, and Georgia.
- The Sea of Azov is a smaller body of water connected to the Black Sea and is shared by Ukraine and Russia.

Information Booster:
- Ukraine's coastline on the Black Sea stretches for about 2,782 kilometers.
- The Sea of Azov is the shallowest sea in the world, with a maximum depth of about 14 meters.
- The ports on Ukraine's Black Sea coastline, including Odessa and Mykolaiv, are vital for trade and maritime activities.
- The Crimean Peninsula, which was annexed by Russia in 2014, is also located on the Black Sea, but it has been a point of geopolitical tension between Ukraine and Russia.

Q27. Which strait lies between Russia and a state of the United States of America?
(a) Palk Strait
(b) Bering Strait
(c) Strait of Magellan
(d) Strait of Dover
Ans: B
Sol:
The correct answer is (b) Bering Strait
The Bering Strait lies between Russia and the U.S. state of Alaska. It connects the Arctic Ocean with the Bering Sea and separates the Chukotka Peninsula in Russia from Alaska in the United States. At its narrowest point, the strait is about 85 km (53 miles) wide.

Information Booster:
- Separates: Easternmost Russia and westernmost USA (Alaska)
- International Date Line: Passes roughly through the strait
- Islands: Diomede Islands — Big Diomede (Russia) and Little Diomede (USA)
- Historical Significance: Believed to have been a land bridge (Beringia) during the Ice Age, enabling migration of humans from Asia to the Americas

Why Other Options Are Incorrect:
- (A) Palk Strait: Lies between India and Sri Lanka
- (C) Strait of Magellan: Lies near the southern tip of South America, between mainland Chile and Tierra del Fuego
- (D) Strait of Dover: Lies between England and France, connecting the English Channel to the North Sea

Q28. Which of the following is the largest Peninsular river?
(a) Narmada
(b) Godavari
(c) Mahanadi
(d) Kaveri

Ans: B

Sol:
The correct answer is: (B) Godavari
Explanation:
- The Godavari is the largest river in the Peninsular region of India.
- It flows for about 1,465 km, making it the second longest river in India, after the Ganges.
- The Godavari originates from the Western Ghats in Maharashtra and flows eastward through several states, including Madhya Pradesh, Maharashtra, Telangana, Andhra Pradesh, and Odisha, before emptying into the Bay of Bengal.

Information Booster:
- Length of Godavari: 1,465 km.
- Draining Region: The Godavari Basin covers an area of about 312,812 km^2.
- Tributaries: Key tributaries include the Indravati, Pranhita, and Pen ganga rivers.
- Importance: The Godavari is considered the "Dakshina Ganga" (Ganga of the South) due to its significance to the region's agriculture and economy.
- Hydroelectric Projects: Several major projects, such as the Koyna Dam, are built along the river to generate electricity.

Additional Information:
- Narmada: While the Narmada is a major river, it is smaller in length compared to the Godavari. It flows for about 1,312 km.
- Mahanadi: The Mahanadi is also a significant river, but it is shorter than the Godavari, flowing for about 858 km.
- Kaveri: The Kaveri is an important river in southern India, but it is also shorter than the Godavari, with a length of about 805 km.

Q29. The Krishna River is the _____ longest river in India.
(a) First
(b) Second
(c) Third
(d) Fourth

Ans: C

Sol:
The correct answer is option ([c]) Third
Explanation
•→The Krishna River is the third-longest river in India, after the Ganga and Godavari.
•→It is the fourth-largest river in terms of water inflows and river basin area in India.
•→The Krishna River originates in the Western Ghats, at an elevation of about 1337 meters, north of the Mahabaleshwar hills in Maharashtra.
Information Booster
•→The Krishna River is crucial for water supply in the Deccan Plateau, and its basin spans across several states, including Maharashtra, Karnataka, Telangana, and Andhra Pradesh.

•→It is one of the major rivers of India and plays a significant role in irrigation, hydroelectric power generation, and water supply.
Additional Knowledge
1. Ganga River: The longest river in India, flowing from the Himalayas to the Bay of Bengal.
2. Godavari River: The second-longest river in India, flowing through the Deccan Plateau, and providing vital water resources for several states.
3. Western Ghats: The Krishna River originates from the Western Ghats, an important mountain range in Maharashtra.

Q30. By which treaty did Russia withdraw from the First World War?
(a) Treaty of Petrograd
(b) Treaty of Vienna
(c) Treaty of Versailles
(d) Treaty of Brest Litovsk

Ans: D
Sol:
The correct answer is (d) Treaty of Brest-Litovsk.
The Treaty of Brest-Litovsk was signed on March 3, 1918, marking Russia's withdrawal from the First World War. It was an agreement between Soviet Russia and the Central Powers (Germany, Austria-Hungary, Bulgaria, and the Ottoman Empire). This treaty was a pivotal moment in World War I, significantly affecting the dynamics on the Eastern Front.
Key Details:
- Reason for Withdrawal: The Bolshevik government, led by Vladimir Lenin, wanted to focus on internal issues such as the Russian Revolution and the civil unrest.
- Territorial Loss: Russia ceded large territories including Ukraine, Belarus, Poland, and the Baltic States (Estonia, Latvia, Lithuania) to Germany and its allies.
- Reparations: Russia agreed to pay reparations and suffered significant economic and political losses.

Significance:
The treaty ended Russia's participation in the war and allowed Germany to shift its focus to the Western Front. However, the treaty was annulled after Germany's defeat in November 1918.
Additional Information:
- Treaty of Vienna: Refers to agreements made during the Congress of Vienna (1815), unrelated to World War I.
- Treaty of Versailles: Signed in 1919, it ended World War I but involved the Allies and Germany, not Russia.

Q31. Where is Manas National Park located?
(a) Rajasthan
(b) Gujarat
(c) Assam
(d) Kerala

Ans: C
Sol:
The correct answer is option (c) Assam.
Explanation
Manas National Park, located in the foothills of the Himalayas in Assam, is a UNESCO World Heritage Site recognized for its biological diversity and natural beauty. Spanning over an area of 950 square kilometers, it is a significant wildlife reserve that forms part of the Manas River Basin.
The park is not only known for its stunning landscapes but also for its rich ecosystem. It shares a border with Bhutan's Royal Manas National Park, contributing to a transboundary conservation area that supports the preservation of various species and ecological processes.
Manas is home to numerous endangered species, including the Bengal tiger, one-horned rhinoceros, and wild buffalo. Its diverse habitats range from grasslands to tropical rainforests, providing a haven for both flora and fauna.
This national park plays an essential role in maintaining ecological balance and serves as a key area for conservation efforts in northeastern India. The Manas River, flowing through the park, adds to the park's beauty and is crucial for sustaining its diverse wildlife and plant species.

Q32. As of June 5, 2025, how many Ramsar Sites are there in India?

(a) 85
(b) 91
(c) 100
(d) 114

Ans: B

Sol:

The correct answer is option (b) 91.

Explanation

1. On June 5, 2025, Khichan (Phalodi, Rajasthan) and Menar (Udaipur, Rajasthan) were added to the Ramsar List of Wetlands of International Importance.
2. With these additions, India now has 91 Ramsar Sites, making it the country with the highest number of Ramsar sites in Asia and the third-highest globally after the United Kingdom (176) and Mexico (144).
3. Khichan is famous for attracting thousands of migratory Demoiselle Cranes and serves as a critical stopover for migratory birds along the Central Asian Flyway. It is also a popular site for birdwatching tourism, contributing to the local economy.
4. Menar, often referred to as the "bird village", is home to over 150 bird species, including flamingos, pelicans, and storks. The site is actively conserved through community participation to protect its rich avian biodiversity.
5. Along with the 91 Ramsar Wetlands, India also has 114 Significant Wetlands across the country.

Information Booster

- →Khichan and Menar are essential sites for migratory birds, contributing to the global protection of biodiversity.
- →India now holds 91 Ramsar Sites, making it a leader in wetland conservation in Asia.
- →The Ramsar Convention plays a crucial role in safeguarding wetlands that provide essential ecosystem services such as water purification, flood control, and biodiversity support.

Additional Knowledge

- →Khichan (Phalodi) is a significant stopover for Demoiselle Cranes and contributes to eco-tourism, offering an opportunity for birdwatching and promoting local businesses.
- →Menar (Udaipur) supports over 150 bird species and is conserved by local communities, making it a model of community-led conservation.
- →India's increasing number of Ramsar sites reflects its growing commitment to environmental protection and global conservation goals.

Q33. Chandertal, Renuka and Pong Dam are the three Ramsar wetland sites of which state?
(a) Karnataka
(b) Assam
(c) Gujarat
(d) Himachal Pradesh

Ans: D

Sol:

The correct answer is: (D) Himachal Pradesh

Explanation:

Chandertal, Renuka, and Pong Dam are three Ramsar wetland sites located in Himachal Pradesh. These wetlands are recognized under the Ramsar Convention,
an international treaty for the conservation and sustainable use of wetlands.

Information Booster:

- Chandertal Wetland: A high-altitude wetland in the Lahaul-Spiti district, famous for its pristine beauty and biodiversity.
- Renuka Wetland: The largest lake in Himachal Pradesh, located in Sirmaur district, known for its religious significance.
- Pong Dam Lake: A reservoir on the Beas River in Kangra district, crucial for migratory birds and biodiversity conservation.

Additional Knowledge:

- Karnataka : Has Ramsar sites like Ranganathittu Bird Sanctuary but not these three.
- Assam: Hosts Deepor Beel but not these wetlands.
- Gujarat: Has Nalsarovar and Khijadia Wetlands, different from the mentioned ones.

Q34. The largest planet of the solar system is
(a) Saturn
(b) Uranus

(c) Jupiter
(d) Neptune

Ans: C

Sol:

Correct Answer: C. Jupiter

Explanation:

- Jupiter is the largest planet in our solar system in terms of:
  - Diameter
  - Mass
  - Volume
- It is a gas giant, composed primarily of hydrogen and helium.
- Jupiter is so massive that all other planets could fit inside it more than once.

Information Booster:

- Diameter: ~142,984 km (11 times that of Earth)
- Moons: 95+ confirmed (largest is Ganymede, the biggest moon in the solar system)
- Great Red Spot: A massive storm larger than Earth, raging for at least 300 years
- Jupiter has a strong magnetic field and dozens of rings and satellites.

Additional Information:

- Saturn
  - Second largest planet; known for its distinct rings.
- Uranus
  - A gas giant, tilted sideways; third largest in diameter.
- Neptune
  - Farthest from the Sun; known for strong winds, but not the largest.

Q35. The planet closest to the Sun is

(a) Mercury
(b) Earth
(c) Venus
(d) Pluto

Ans: A

Sol:

Mercury is the closest planet to the Sun in our solar system. It orbits the Sun at an average distance of approximately 57.9 million kilometers (36 million miles). Due to its proximity, Mercury experiences extreme temperatures, with scorching heat during the day and freezing cold at night because it has no significant atmosphere to retain heat.

Despite being the closest to the Sun, Mercury is not the hottest planet; that distinction belongs to Venus, owing to its thick carbon dioxide atmosphere and runaway greenhouse effect. Mercury completes its orbit around the Sun in 88 Earth days, making its year the shortest among all planets.

Information Booster:

- →Mercury is the smallest planet in the solar system.
- →It has no moons or rings.
- →One day on Mercury (rotation) is about 59 Earth days.
- →Mercury has a thin exosphere, not a true atmosphere.
- →It shows phases like the Moon, as seen from Earth.
- →It was visited by NASA's MESSENGER mission (2004–2015).

Additional Information:

- →Earth: Earth is the third planet from the Sun. It is the only known planet to support life and has a stable climate due to its atmosphere and magnetic field. While it is not the closest, it is uniquely positioned in the habitable zone.
- →Venus: Venus is the second planet from the Sun. Though farther than Mercury, it is the hottest planet due to its dense CO_2 atmosphere and intense greenhouse effect. Venus rotates very slowly and in a retrograde (backward) direction.
- →Pluto: Pluto is no longer classified as a major planet since 2006. It is now a dwarf planet located in the Kuiper Belt, farthest from the Sun in the planetary system. Its average distance from the Sun is about 5.9 billion kilometers.

Q36. The Arctic region and the Antarctica continent are situated near

(a) the Sahara Desert

(b) the North and South Poles
(c) the Amazon Basin
(d) the Equator

Ans: B

Sol:

The correct answer is (b) the North and South Poles

Explanation:

- The Arctic region is located around the North Pole, while the Antarctica continent is situated around the South Pole. The two regions are at opposite ends of the Earth and are characterized by extremely cold climates, vast ice sheets, and unique ecosystems.
- The Arctic region consists of the Arctic Ocean and surrounding areas, including parts of Canada, Russia, Greenland, and the Northern parts of Europe and Asia.
- The Antarctic continent is a landmass entirely covered by ice and is located at the South Pole.

Information Booster:

- Arctic region is an oceanic area surrounded by landmasses, including the Arctic Ocean, whereas Antarctica is a continent entirely covered by ice.
- Both regions are crucial for studying climate change, glaciology, and biodiversity.
- The Arctic region is home to indigenous peoples like the Inuit, while Antarctica has no native human population.
- The Arctic region experiences seasonal ice melt and regrowth, while Antarctica's ice sheets are mostly permanent.
- The two regions are vital for global climate regulation, especially due to their ice cover, which affects sea levels and ocean currents.

Additional Information:

- The Sahara Desert: Located near the Equator, it is one of the hottest places on Earth and not related to the polar regions.
- The Amazon Basin: Located near the Equator, it is a tropical rainforest and does not have a connection to the polar regions.
- The Equator: Divides the Earth into the Northern and Southern Hemispheres but is far from the cold polar regions.

Q37. The _____, is the area of the earth where living organisms can be found or where life can be sustained.

(a) atmosphere
(b) troposphere
(c) biosphere
(d) stratosphere

Ans: C

Sol:

The correct answer is (c) biosphere.

• The biosphere is the part of the Earth where living organisms exist. It includes the land (lithosphere), water (hydrosphere), and air (atmosphere) in which life is found. This area supports all forms of life, from microorganisms to large animals and plants.
• The biosphere is a delicate balance of different ecosystems that sustain life through processes like energy flow, nutrient cycling, and the interactions between organisms and their environment.

Information Booster:

- Atmosphere: The layer of gases surrounding Earth, which is essential for life but is not itself the area where life is sustained.
- Troposphere: The lowest layer of Earth's atmosphere, where weather and life occur, but the biosphere extends beyond just the troposphere.
- Stratosphere: The layer above the troposphere, where the ozone layer is located, but it is not where life is sustained directly.

Q38. The ancient capital of the Magadh state was:

(a) Patna
(b) Gaya
(c) Vaishali
(d) Rajgrih

Ans: D

Sol:

The correct answer is option (d) Rajgrih.

Explanation
The ancient capital of the Magadh state was Rajgrih (also known as Rajgir), which was situated in present-day Bihar. Rajgrih was the capital during the Maurya and Nanda dynasties and was also the capital during the time of Buddha. It was an important center of political and religious activities in ancient India.
Later, the capital of Magadh was shifted to Pataliputra (modern-day Patna), which became the capital during the Maurya Empire, notably under the reign of Chandragupta Maurya and Ashoka.
Information Booster
- Rajgrih was a fortified city surrounded by hills and was a strategic location.
- The Buddha spent many years in Rajgrih, and it was here that he delivered several sermons.
- Rajgrih was also the site of the First Buddhist Council, held after the death of Buddha.
- Pataliputra (Patna) became the capital of Magadh later and remained an important city throughout the Maurya and Gupta periods.

Q39. The first revolt of 1857 began in:
(a) Patna
(b) Buxar
(c) Meerut
(d) Jhansi
Ans: C
Sol:
The correct answer is option (c) Meerut.
Explanation
The First War of Indian Independence, also known as the Revolt of 1857, began in Meerut on May 10, 1857. It started with the uprising of sepoys (Indian soldiers) in the British East India Company's army. The revolt quickly spread to other parts of India, including Delhi, Kanpur, Lucknow, and Jhansi, but the initial spark occurred in Meerut.
The reasons for the revolt were numerous, including resentment towards the British rule, cultural insensitivity, economic exploitation, and the use of animal fat in the new Enfield rifle cartridges, which offended both Hindu and Muslim soldiers.
Information Booster
- The 1857 revolt is also called India's First War of Independence or the Sepoy Mutiny.
- The rebellion spread to several regions, including Delhi, where Bahadur Shah Zafar, the last Mughal emperor, was declared the symbolic leader of the uprising.
- Rani Lakshmibai of Jhansi, Tantiya Tope, and Nana Sahib were some of the prominent figures during the revolt.
- The revolt was eventually suppressed by the British, but it laid the foundation for future Indian independence movements.

Additional Knowledge
(a) Patna: Patna was not the starting point of the 1857 revolt, though it was involved in later stages of the uprising.
(b) Buxar: Buxar was significant in earlier resistance against the British .
(c) Meerut: This is the correct answer. Meerut is where the first major act of rebellion took place on May 10, 1857.
(d) Jhansi: Jhansi became a significant center of resistance later, particularly with Rani Lakshmibai, .

Q40. Who gave the slogan "Swaraj is my birthright and I shall have it"?
(a) Dadabhai Naoroji
(b) Annie Besant
(c) Dr. B.R. Ambedkar
(d) Bal Gangadhar Tilak
Ans: D
Sol:
The correct answer is: (d) Bal Gangadhar Tilak
Explanation:
- Bal Gangadhar Tilak, one of the foremost leaders of the Indian independence movement, gave the slogan "Swaraj is my birthright and I shall have it."
- This slogan became a rallying cry for the Indian freedom struggle and symbolized the demand for self-rule.
- Tilak is also known for his role in the Home Rule Movement, advocating for greater self-governance for Indians within the British Empire.

- His strong leadership and revolutionary ideas made him one of the most influential figures in the early phase of India's fight for independence.

Information Booster:

- Bal Gangadhar Tilak was a key leader in the Indian National Congress and one of the first leaders to advocate for radical methods in the struggle against British rule.
- Swaraj was central to Tilak's vision, which emphasized self-governance and the rejection of colonial rule.
- Bal Gangadhar Tilak was a mentor to leaders like Lala Lajpat Rai and Bipin Chandra Pal, forming the "Lal-Bal-Pal" trio in Indian politics.
- Tilak's slogan made him popular as the "father of Indian unrest," and he was one of the first to openly call for full independence (Swaraj).
- He also played an important role in the promotion of cultural nationalism, using festivals like Ganesh Chaturthi to mobilize the masses against British rule.

Additional Information:

- Dadabhai Naoroji was known as the "Grand Old Man of India" and is famous for his contributions to Indian economic thought and his role in the Indian National Congress.
- Annie Besant was a British socialist and a prominent leader in the Indian independence movement, especially known for her work in the Home Rule Movement.
- Dr. B.R. Ambedkar was a social reformer and the principal architect of the Indian Constitution, but he did not coin the slogan in question.

Q41. Bal Gangadhar Tilak, a prominent extremist leader, wrote the newspaper 'Mahratta' in which language?

(a) English
(b) Bengali
(c) Marathi
(d) Hindi

Ans: A

Sol:

The correct answer is (a) English

- Bal Gangadhar Tilak wrote the newspaper ‘Mahratta’ in English, which he used to spread his ideas of nationalism, self-rule (Swaraj), and to challenge British rule.
- His other prominent newspaper, ‘Kesari’, was published in Marathi, a language aimed at the masses in Maharashtra to promote nationalism and cultural revival.
- ‘Mahratta’ was critical in spreading Tilak’s views on India's need for self-governance and his belief in the power of the people to overthrow colonial rule.

Information Booster:

• Bal Gangadhar Tilak’s Contributions:

- Father of Indian Unrest: Tilak is often called the “Father of Indian Unrest” because of his role in igniting the Indian independence movement through his radical and assertive approach. He was a leading figure of the extremist faction of the Indian National Congress, advocating for complete independence rather than gradual reforms.

• Swaraj is My Birthright:

- Tilak is best known for his slogan "Swaraj is my birthright, and I shall have it", which became a rallying cry for the Indian independence movement.

• Role in the Freedom Struggle:

- Tilak was one of the first leaders to understand the power of popular mobilization. His public campaigns aimed to unite the masses against British rule.
- He emphasized the importance of Hindu culture and religious festivals as tools for promoting nationalist feelings. He used the Ganesh Chaturthi festival as a platform for political mobilization, turning it into a public event that brought together people to discuss freedom and unity.

• Major Works:

- Tilak wrote a number of influential works, including “The Arctic Home in the Vedas”, where he linked Indian culture to Vedic traditions and suggested that the Aryans originated from the Arctic region.
- His other famous work, “Gita Rahasya”, is a commentary on the Bhagavad Gita, where he argued that the Gita advocates the path of active participation in life and work, a view that encouraged national action for freedom.

• Imprisonment:

- Tilak was imprisoned by the British for his nationalistic activities. He was sentenced to 6 years of imprisonment in 1887 for writing articles in his newspapers that were considered seditious by the British.

Q42. What is the theme of World Health Day 2025 celebrated on April 7?
(a) Health for All
(b) Building a Fairer, Healthier World
(c) Healthy beginnings, hopeful futures
(d) Our Planet, Our Health

Ans: C

Sol:

Ans. (c)

World Health Day is celebrated every year on April 7 to mark the founding of the World Health Organization (WHO) in 1948. Each year, WHO selects a specific theme to highlight global health priorities. In 2025, World Health Day falls on Monday, April 7, and the official theme is "Healthy beginnings, hopeful futures."

This year's theme emphasizes the importance of investing in health from the earliest stages of life, including maternal health, child development, and access to essential healthcare services. It advocates for providing equitable and inclusive healthcare to ensure that every individual, regardless of socio-economic background, can thrive.

The day also serves to raise awareness about health inequalities, promote universal health coverage, and encourage global cooperation for a healthier future.

Information Booster

•→Date Observed: April 7 annually
•→Organized by: World Health Organization (WHO)
•→2025 Theme: "Healthy beginnings, hopeful futures"
•→Marks the establishment of WHO in 1948
•→Focuses on equity, access, and early life healthcare
•→Encourages nations to strengthen primary healthcare systems

Additional Knowledge

(a) Health for All This was the theme for World Health Day 2023, promoting universal health coverage. It focused on the idea that everyone, everywhere, should have access to quality health services without financial hardship.

(b) Building a Fairer, Healthier World This theme was used in 2021, highlighting how health inequalities have been exacerbated by the COVID-19 pandemic. It called for actions to eliminate social and economic barriers to health.

(c) Healthy beginnings, hopeful futures Correct answer. This is the official theme for 2025. It focuses on the crucial early years of life, maternal and newborn care, and equitable health systems to ensure every child and family has a healthy start.

(d) Our Planet, Our Health This was the theme for World Health Day 2022. It highlighted the interconnection between planetary health and human health, drawing attention to environmental issues like climate change, pollution, and their impact on public health.

Q43. Where was the 51st G7 Summit held in 2025?
(a) Kananaskis, Canada
(b) Charlevoix, Canada
(c) Hiroshima, Japan
(d) Cornwall, United Kingdom

Ans: A

Sol:

The correct answer is option (a) Kananaskis, Canada

Explanation

The 51st G7 Summit was held on June 16–17, 2025, in Kananaskis, Alberta, Canada. This was the second time Kananaskis hosted the G7 summit, the first being the 28th G8 summit in 2002. The summit was organized under Canada's presidency, with Prime Minister Mark Carney hosting the event. Leaders from the G7 nations, along with invited countries including India, participated in discussions on various global issues.

Information Booster

•→Kananaskis, located in the Rocky Mountains west of Calgary, was chosen for its scenic beauty and seclusion, providing a conducive environment for high-level discussions.
•→The summit addressed critical topics such as energy security, digital transformation, global health, and geopolitical tensions, including the ongoing Iran–Israel conflict.

•→U.S. President Donald Trump attended the summit but left early to address escalating tensions in the Middle East.
•→The summit's outcome included discussions on critical mineral supply chains, artificial intelligence, and climate change, though a joint communique was not issued due to differing positions among member states.
Additional Knowledge
•→The G7 (Group of Seven) is an informal group of seven major advanced economies: Canada, France, Germany, Italy, Japan, United Kingdom, and United States.
•→The summit serves as a platform for these nations to discuss and coordinate on global economic policies, security issues, and other international matters.
•→India, while not a member, was invited to participate as a guest due to its significant role in the global economy and international affairs.

Q44. World Population Day is observed every year on which day?
(a) June 5
(b) July 11
(c) August 15
(d) December 10
Ans: B
Sol:
The correct answer is option (b) July 11
Explanation
• World Population Day is observed every year on July 11 to raise awareness about population-related challenges and their implications on development, the environment, and human rights.
• The day was established in 1989 by the United Nations Development Programme (UNDP), following the global attention generated by Five Billion Day on July 11, 1987, when the world population crossed the five billion mark.
• This day emphasizes the need for governments, institutions, and individuals to focus on sustainable development, reproductive health services, education, and equitable access to resources.
Information Booster
•→The UNDP established World Population Day to address critical issues like overpopulation, climate change, and reproductive health.
•→It calls for global awareness of the effects of population growth and the importance of access to education and resources for sustainable development.
•→Reproductive rights and family planning are central themes discussed on this day.

Q45. When is 'World Water Day' observed?
(a) March 20
(b) March 22
(c) March 23
(d) March 21
Ans: B
Sol:
The Correct answer is (b) March 22.
•→World Water Day is observed every year on March 22 to highlight the importance of freshwater and advocate for the sustainable management of freshwater resources. It was first designated by the United Nations General Assembly in 1993. This day is utilized to raise awareness about water-related issues such as water scarcity, water pollution, and inadequate water supply, which are global concerns affecting millions of people.
Additional Information :
•→March 20: This date is observed as the International Day of Happiness, focusing on promoting happiness and well-being.
•→March 23: This date is celebrated as World Meteorological Day, marking the establishment of the World Meteorological Organization (WMO).
•→March 21: This date is observed as the International Day of Forests, highlighting the importance of forests and trees.

Q46. Identify the swimmer who received the Arjuna Award 2024.
(a) Sajan Prakash
(b) Aman
(c) Navdeep

(d) Abhay Singh

Ans: A

Sol:

Sajan Prakash was the swimmer who received the Arjuna Award 2024.

Q47. Which Article of the Indian Constitution specifically mentions, "The official language of the Union shall be Hindi in Devanagari script?"

(a) Article 51A
(b) Article 80
(c) Article 343(1)
(d) Article 395

Ans: C

Sol:

The correct answer is: (c) Article 343(1)

Explanation:

- Article 343(1) of the Indian Constitution clearly states:
  "The official language of the Union shall be Hindi in Devanagari script."
- This provision came into effect on 26 January 1950, when the Constitution was enforced.

Information Booster:

- English was to continue for 15 years as an associate official language under Article 343(2).
- The Official Languages Act, 1963 allowed English to be used alongside Hindi beyond 1965.
- Hindi is spoken by the largest number of people in India.
- Devanagari script is distinct from other Indian scripts like Tamil or Bengali.
- Article 351 directs the Union to promote the spread of Hindi.
- The Eighth Schedule lists 22 official languages, including Hindi.

Additional Information:

- Article 51A – Lists Fundamental Duties of citizens.
- Article 80 – Deals with the composition of the Rajya Sabha.
- Article 395 – States repeal of the Indian Independence Act and Government of India Act 1935.

Q48. National Emergency is declared under which Article of the Indian Constitution?

(a) Article 352
(b) Article 356
(c) Article 360
(d) Article 368

Ans: A

Sol:

The correct answer is option (a) Article 352.

Explanation

1. Article 352: National Emergency:

•→National Emergency is declared under Article 352 of the Indian Constitution. This provision allows the President of India to declare a national emergency if India's security or any part of its territory is threatened by war, external aggression, or armed rebellion.

2. Grounds for Proclamation:

•→The President can issue a proclamation of emergency on the grounds of external aggression, war, or armed rebellion, even if these events have not occurred but are imminent. This allows for preventive measures to safeguard the nation's security.

3. Changes by the 44th Amendment Act:

•→The 44th Amendment Act of 1978 substituted the term "internal disturbance" with "armed rebellion" to remove vagueness and avoid misuse of the term. This was done to clarify the grounds on which an internal emergency could be declared.

4. Approval of Parliament:

•→Once the President declares a national emergency, it must be approved by both Houses of Parliament within one month (reduced from two months by the 44th Amendment Act).

5. Special Majority for Continuation:

•→Any resolution to approve or continue a national emergency must be passed by a special majority in both Houses of Parliament.

6. Duration and Extension:
•→The national emergency continues for six months after approval by Parliament and can be extended indefinitely with parliamentary approval every six months. This was a significant change introduced by the 44th Amendment Act.
Information Booster
•→Article 352 deals specifically with National Emergency in the Constitution.
•→The 44th Amendment Act of 1978 was crucial in limiting the powers of the Executive by introducing checks on the duration and extension of a national emergency.
•→The President's Proclamation must be approved by both Houses of Parliament within one month after being issued.
•→The Lok Sabha must approve the proclamation, even if the Lok Sabha is dissolved, within 30 days of the first sitting of the newly constituted Lok Sabha.
•→The 44th Amendment Act also replaced the vague term "internal disturbance" with "armed rebellion" to prevent misuse of emergency provisions.
Additional Knowledge
•→Article 356 (Option b) deals with President's Rule (State Emergency) and is invoked when the government of a state cannot function according to the Constitution.
•→Article 360 (Option c) deals with the declaration of a Financial Emergency when there is a threat to India's financial stability or credit.
•→Article 368 (Option d) outlines the procedure for amending the Constitution but is not related to emergency provisions.

Q49. Where is Lakshmi Sagar Lake located?
(a) Champaran
(b) Darbhanga
(c) Supaul
(d) Begusarai
Ans: B
Sol:
(b) Darbhanga
Explanation:
Lakshmi Sagar Lake is located in Darbhanga district, Bihar. It is an important waterbody for irrigation, fisheries, and ecological balance.
Key Points:
- Located in Darbhanga, Bihar.
- Important for irrigation and fisheries.
- Supports biodiversity and migratory birds.
- Plays a role in local flood management.

Analysis of Other Options:
- (a) Champaran – Incorrect; no Lakshmi Sagar Lake here.
- (c) Supaul – Incorrect; Supaul has other lakes but not this one.
- (d) Begusarai – Incorrect; Kaushalya Lake is famous here.

Additional Information:
- Darbhanga is known for its numerous ponds and lakes.
- Famous for the Darbhanga Raj Dynasty.
- Mithila region, culturally and historically significant.

Q50. Which is the most populated district of Bihar?
(a) Buxar
(b) Patna
(c) Shivhar
(d) Gaya
Ans: B
Sol:
(b) Patna
The most populated district of Bihar is Patna. As the state capital, Patna is the largest urban center in Bihar and holds a significant political, economic, and educational position. According to the latest census data, Patna's population is more than 58 lakh people, making it the most populous district in the state. Patna is an important hub for trade and commerce, and its infrastructure and

job opportunities attract people from other districts, further contributing to its high population. The district also plays a key role in the state's governance, with major administrative offices and institutions located here.
Information Booster:

1. Patna is one of the oldest continuously inhabited cities in the world, with a rich history dating back over 2,500 years.
2. The city's economy is diverse, with agriculture, commerce, and educational institutions playing significant roles in its development.
3. Patna is home to several important institutions like Patna University, Nalanda Open University, and the Indian Institute of Technology (IIT) Patna.
4. The Bihar State is a densely populated state, but the concentration in Patna is unmatched due to its strategic location on the Ganges River.
5. Patna is also known for its cultural heritage, with sites like the Patna Museum, Golghar, and various religious monuments attracting both tourists and pilgrims.
6. Patna has a significant contribution to Bihar's political scene as it is the seat of the state government and houses the Bihar Legislative Assembly.

Additional Information:

- Buxar is an important district, known for its historical significance (the Battle of Buxar), but its population is significantly smaller compared to Patna.
- Shivhar is a less populated district compared to Patna, with a relatively smaller urban spread and fewer commercial or educational hubs.
- Gaya is also a large district with religious importance due to Bodh Gaya, where Buddha is said to have attained enlightenment, but its population doesn't exceed that of Patna.

Q51. The oldest river valley Project of Bihar is ?
(a) Son Project
(b) Gandak Project
(c) Kosi Project
(d) Damodar Project
Ans: A
Sol:
Ans.(a) Son Project
Explanation:
The correct answer is Son Project. The Son River Project is the oldest river valley project in Bihar, aimed at irrigation, flood control, and hydroelectric power generation. It was initiated in 1873 during British rule and later expanded.
Information Booster:
● The Son River is a tributary of the Ganges.
● The Indrapuri Barrage is a major structure of the project.
● The project provides irrigation to large parts of Bihar and Uttar Pradesh.
● The Gandak and Kosi Projects were developed later for flood control.

Q52. Which river divides the Kaimur hills and the North Koel River valley?
(a) Son
(b) Ganga
(c) Phalgu
(d) Karmanasa
Ans: A
Sol:
Son River divides the Kaimur hills and the North Koel River valley.

Q53. Goods and services tax (GST) became operational from _____.
(a) 1 July 2017
(b) 1 May 2016
(c) 1 April 2016
(d) 1 April 2017
Ans: A
Sol:

GST became operational on 1 July 2017.
• Goods and Services Tax (GST) is a comprehensive indirect tax that is levied on the supply of goods and services in India.
• It replaces multiple indirect taxes such as excise duty, service tax, value-added tax (VAT), etc.
• GST is a destination-based tax that is levied at every stage of the supply chain, but it is ultimately borne by the end consumer.

Q54. What is the alternative name for the Third Five Year Plan (1961 to 1966)?
(a) Nehru Yojana
(b) Mahalanobis Plan
(c) Gadgil Yojana
(d) Shastri Plan
Ans: C
Sol:
The Third Five Year Plan, covering the period from 1961 to 1966, is also known as the 'Gadgil Yojana.' This plan was named after D. R. Gadgil, who was a prominent economist and a member of the Planning Commission of India. The plan aimed to make the Indian economy independent and achieve the self-active position of take-off.
The term 'self-active position of take-off' refers to reaching a stage where economic growth becomes self-sustaining. This plan marked a shift towards balanced, regional development, and it laid the foundation for various economic policies and initiatives aimed at fostering growth and development in different parts of the country.

Q55. The Green Revolution started in the year 1965 and the _____ five year plan was between 1961-1966.
(a) 5th
(b) 2nd
(c) 1st
(d) 3rd
Ans: D
Sol:
The correct answer is (d) 3rd.
•→The Green Revolution in India began in 1965, during the Third Five Year Plan (1961-1966). The Third Five Year Plan focused on agriculture and improving food production in India, but it was the Green Revolution that significantly boosted India's agricultural output, particularly in the production of wheat and rice.
Information Booster:
•→Green Revolution: It introduced high-yielding varieties (HYVs) of seeds, especially for wheat and rice, along with the use of chemical fertilizers, pesticides, and advanced irrigation techniques. The Green Revolution helped India become self-sufficient in food production.
•→Third Five Year Plan: This plan aimed at making India self-reliant and focused on agriculture, education, and heavy industries. However, due to various issues such as the Indo-China war and poor monsoon, the agricultural sector needed more efforts, which led to the introduction of the Green Revolution.

Q56. Which type of cultivation mainly involves the use of high-yielding variety (HYV) seeds, chemical fertilizers, insecticides, and pesticides to obtain higher productivity?
(a) Commercial Farming
(b) Intensive Subsistence Farming
(c) Primitive Subsistence Farming
(d) Dryland Farming
Ans: A
Sol:
The Correct Answer is: (a) Commercial Farming
Explanation:
Commercial Farming is characterized by the use of modern technologies including high-yielding variety (HYV) seeds, chemical fertilizers, pesticides, and insecticides to achieve high productivity.
It is capital-intensive, highly mechanized, and aimed at producing large-scale outputs for market sale, both domestic and export. This method is commonly practiced in regions with good infrastructure and access to markets.
Information Booster:

- Crops grown include cotton, sugarcane, wheat, rice, tea, coffee, etc.
- States like Punjab, Haryana, Maharashtra, and Andhra Pradesh are known for commercial agriculture.
- It typically uses machines and has low labor dependence compared to subsistence farming.

Additional Information:

- Intensive Subsistence Farming – Uses modern inputs in small landholdings but primarily for household consumption.
- Primitive Subsistence Farming – Traditional, low-input farming with minimal tools.
- Dryland Farming – Used in arid regions focusing on drought-resistant crops.

Q57. The cells having well - organized nucleus with a nuclear membrane are designated as

(a) prokaryotic cells
(b) eukaryotic cells
(c) autokaryotic cells
(d) Cheek cells

Ans: B

Sol:

The correct answer is (b) eukaryotic cells.

Eukaryotic cells are cells that have a well-organized nucleus with a nuclear membrane. The nuclear membrane separates the genetic material from the rest of the cell. This allows the genetic material to be protected and organized. Eukaryotic cells also have other membrane-bound organelles, such as the mitochondria, endoplasmic reticulum, and Golgi apparatus.

Here's a more detailed explanation of the options:

•→Prokaryotic cells: Prokaryotic cells are cells that lack a true nucleus and other membrane-bound organelles. Instead, their genetic material (DNA) is located in the nucleoid region, which is not enclosed by a nuclear membrane. Prokaryotic cells are found in organisms such as bacteria and archaea.

•→Cheek cells: Cheek cells refer to the cells that line the inside of your cheek. These cells are eukaryotic cells because they have a well-organized nucleus with a nuclear membrane.

Q58. Plant cells change shape by changing the amount of in them, resulting in swelling or shrinking, and therefore in changing shapes.

(a) chlorophyll
(b) fat
(c) water
(d) carbon dioxide

Ans: C

Sol:

The correct answer is: (c) water

Explanation:

- Plant cells change shape by adjusting the amount of water in their vacuoles.
- When water enters the cell, it causes the vacuole to swell, resulting in turgidity and a change in the cell's shape.
- Conversely, when water leaves the vacuole, the cell shrinks due to plasmolysis.

Information Booster:

- The vacuole in a plant cell is responsible for storing water and other substances.
- Turgor pressure (due to water intake) helps in maintaining the rigidity of the plant cell.
- Water movement into and out of the cell is regulated by osmosis.
- Changes in water content affect the shape and structure of plant cells.
- This process is vital for maintaining the structural integrity of plant tissues.

Additional Information:

- Chlorophyll – The pigment responsible for photosynthesis, not related to cell shape changes.
- Fat – Stored in plant cells, but does not influence cell shape changes like water.
- Carbon dioxide – Used in photosynthesis, but does not directly affect cell shape.

Q59. If lysosomes are also known as the 'suicide bags' of the cell, then which of the following is the powerhouse of the cell?

(a) Vacuoles
(b) Mitochondria
(c) Plastids

(d) Endoplasmic reticulum

Ans: B

Sol:

The correct answer is: (B) Mitochondria

Explanation:

Mitochondria are known as the "powerhouse of the cell" because they are responsible for producing energy in the form of ATP (adenosine triphosphate) through the process of cellular respiration.

This energy is essential for various cellular activities. Mitochondria convert energy stored in food molecules into usable energy for the cell, making them vital for cellular functions.

Information Booster:

- They are present in eukaryotic cells and are crucial for energy production.
- The process of oxidative phosphorylation occurs in the mitochondria, where energy is produced and stored as ATP.
- Mitochondria are also involved in other functions like calcium storage, cell signaling, and apoptosis (programmed cell death).
- In addition to energy production, mitochondria play a role in the regulation of the cell cycle and cell growth.

Additional Information:

- Vacuoles: These are membrane-bound sacs used for storage, waste disposal, and maintaining turgor pressure in plant cells.
- Plastids: Found in plant cells, plastids like chloroplasts are involved in photosynthesis.
- Endoplasmic reticulum: The rough ER is involved in protein synthesis, and the smooth ER helps in lipid synthesis and detoxification.

Q60. Which function both as a passageway for intracellular transport and as a manufacturing surface?

(a) Endoplasmic reticulum
(b) Ribosome
(c) Plastids
(d) Mitochondria

Ans: A

Sol:

The correct answer is: (A) Endoplasmic reticulum

Explanation:

The endoplasmic reticulum (ER) functions both as a passageway for intracellular transport and as a manufacturing surface. It is a network of membranes within the cytoplasm that plays a central role in the synthesis of proteins (on the rough ER, which is studded with ribosomes) and lipids (on the smooth ER).

The ER also serves as a passageway for transporting proteins and other materials throughout the cell.

- The rough ER is involved in protein synthesis and modification, while the smooth ER is involved in lipid synthesis and detoxification.
- The ER connects with the nuclear envelope, allowing for efficient transport of materials between the nucleus and other parts of the cell.

Additional Information:

- B) Ribosome: Ribosomes are the sites of protein synthesis.
- C) Plastids: Plastids, like chloroplasts, are involved in the synthesis of food (through photosynthesis in plants)
- D) Mitochondria: Mitochondria are involved in energy production (ATP synthesis).

Q61. Which of the following glands secretes trypsin enzyme?

(a) Gastric gland
(b) Salivary gland
(c) Pancreas
(d) Liver

Ans: C

Sol:

The correct answer is (C) Pancreas.

Explanation:

The pancreas secretes trypsinogen, an inactive form of trypsin, which is activated in the small intestine. Trypsin plays a critical role in protein digestion by breaking down proteins into smaller peptides and amino acids.

Information Booster:
- Trypsin: A protease enzyme produced by the pancreas that helps break down proteins into smaller peptides in the small intestine.
- Pancreas: Produces digestive enzymes such as amylase (carbohydrates), lipase (fats), and proteases (like trypsin), and regulates blood sugar through insulin.
- Trypsinogen: The inactive precursor of trypsin, which is activated in the small intestine by enterokinase.

Additional Knowledge:
- Gastric gland: Produces gastric juice, which includes the enzyme pepsin, involved in protein digestion in the stomach.
- Salivary gland: Secretes amylase, which initiates the digestion of carbohydrates in the mouth.
- Liver: Produces bile, which aids in the digestion of fats in the small intestine.

Q62. In humans, which part of the alimentary canal is responsible for the excretion of waste materials?
(a) Large intestine
(b) Small intestine
(c) Appendix
(d) Anus

Ans: D

Sol:

The correct answer is (d) Anus
- In humans, the anus is the final part of the alimentary canal responsible for the excretion of waste materials in the form of feces.
- After digestion and absorption, the leftover waste forms feces, which are expelled through the anus.
- The large intestine absorbs water and compacts the waste into feces but does not directly expel it.
- The small intestine mainly absorbs nutrients and does not play a role in waste excretion.
- The appendix is a small, vestigial structure with no significant role in digestion or waste excretion.

Information Booster:
• The process of expelling feces through the anus is called defecation.
• The large intestine houses beneficial bacteria that produce some vitamins.
• Appendix can become inflamed, causing appendicitis.
• Feces primarily contain indigestible food residues, dead cells, and water.
• The anus has muscular sphincters that control the release of feces.
• Voluntary and involuntary muscles coordinate during defecation.

Additional Information:
• Nutrient absorption occurs mostly in the small intestine.
• The large intestine forms and stores feces.
• The appendix is considered a vestigial organ and sometimes involved in immune function.

Q63. A universal recipient belongs to the blood group
(a) O
(b) AB
(c) A
(d) B

Ans: B

Sol:

The correct answer is (b) AB.

Explanation:
- A person with the AB blood group is known as a universal recipient because they can receive blood from any other blood type (A, B, AB, or O) without experiencing an immune reaction. This is because their blood contains both A and B antigens, and they lack anti-A and anti-B antibodies in their plasma, allowing them to accept any blood type.

Information Booster
- AB blood type can accept blood from type A, B, AB, and O because they do not have antibodies against A or B antigens.
- Universal recipients are particularly important in blood transfusion procedures, as they can receive blood from any donor type.
- The O negative blood type, on the other hand, is known as the universal donor because it can be given to people of any blood type.

Additional Information

- O: Individuals with blood group O are universal donors (especially O-negative) but can only receive blood from O blood type.
- A: Individuals with blood group A can donate to A and AB and receive from A and O blood types.
- B: Individuals with blood group B can donate to B and AB and receive from B and O blood types.

Q64. In plaster of Paris:

(a) two formula units of $CaSO_4$ Share two molecules of water
(b) one formula unit of $CaSO_4$ has one molecule of water
(c) two formula units of $CaSO_4$ share half a molecule of water
(d) two formula units of $CaSO_4$ share one molecule of water

Ans: D

Sol:

The correct answer is (d) Two formula units of $CaSO_4$ share one molecule of water.

Explanation:

- Plaster of Paris is a hemihydrate of calcium sulfate with the chemical formula $CaSO_4 \bullet \rightarrow \frac{1}{2}H_2O$. This means that for every two formula units of $CaSO_4$, there is one molecule of water associated with it.
- The chemical process involves the dehydration of gypsum ($CaSO_4 \bullet \rightarrow 2H_2O$), where two molecules of water are removed to form Plaster of Paris.
- The formula $CaSO_4 \bullet \rightarrow \frac{1}{2}H_2O$ reflects this process, where each formula unit of $CaSO_4$ is associated with half a molecule of water, but collectively, two formula units of $CaSO_4$ share one molecule of water.

Information Booster:

Uses of Plaster of Paris:

- Used in casting molds, surgical bandages, and architecture.
- Common in art, especially for making sculptures and decorative items.

Q65. Lactic acid is a:

(a) Two-carbon molecule
(b) One-carbon molecule
(c) Four-carbon molecule
(d) Three-carbon molecule

Ans: D

Sol:

The correct answer is (d) Three-carbon molecule.

•→Lactic acid, more commonly known as lactic acid, is a three-carbon molecule.
•→The chemical formula for lactic acid is $C_3H_6O_3$.
•→It has a hydroxyl group (OH) and a carboxyl group (COOH) attached to the carbon chain.
•→Lactic acid is produced in the body during anaerobic respiration and is commonly found in sour milk products like yogurt and kefir.

Information Booster:

•→Two-carbon molecule: Ethanol (C_2H_6O) and acetic acid ($C_2H_4O_2$) are examples of two-carbon molecules.
•→One-carbon molecule: Methanol (CH_3OH) and formic acid (CH_2O_2) are examples of one-carbon molecules.
•→Four-carbon molecule: Butyric acid ($C_4H_8O_2$) is an example of a four-carbon molecule.

Q66. Coulomb is the unit of which physical quantity?

(a) Electrical Resistance
(b) Electric Current
(c) Electric Field
(d) Electric Charge

Ans: D

Sol:

The correct answer is (D) Electric Charge.

Explanation:

Coulomb (C) is the SI unit of electric charge. One coulomb is defined as the charge transported by a current of one ampere in one second.

Information Booster:
- 1 Coulomb (C) = 6.242×10^{18} elementary charges (electrons or protons).
- Named after Charles-Augustin de Coulomb, who formulated Coulomb's Law in 1785.
- Charge (Q) = Current (I) × Time (t), where 1 C = 1 A × 1 s.
- 1 Coulomb is the charge of approximately 6.242×10^{18} electrons.
- Used in electrostatics, electrodynamics, and electric field calculations.

Additional Knowledge:
Electrical Resistance (Ohm, Ω)
- The SI unit of electrical resistance is Ohm (Ω), defined as V = IR (Ohm's Law).

Electric Current (Ampere, A)
- The SI unit of electric current is Ampere (A), where 1 A = 1 C/s.

Electric Field (Newton per Coulomb, N/C)
- The SI unit of electric field strength is Newton per Coulomb (N/C) or Volt per meter (V/m).

Q67. Out of the following, which is a unit used for measuring the amount of work done on a body:
(a) Newton
(b) Meter
(c) Joule
(d) Kilogram

Ans: C
Sol:
The correct answer is (C) Joule.
Explanation:
The unit of work done in the International System of Units (SI) is the Joule (J). One Joule is the amount of work done when a force of one newton acts over a displacement of one meter.
Information Booster:
- Joule (J): The unit of work and energy in the SI system. It is defined as the work done when a force of 1 newton displaces an object by 1 meter.
- Work Formula: Work (W) = Force (F) × Distance (d), where force is measured in newtons and distance is measured in meters.
- Energy and Work: Both work and energy are measured in joules because they are closely related. Energy is the capacity to do work, and work is done when energy is transferred.

Additional Knowledge:
- Newton (N): The unit of force in the SI system.
- Meter (m): The unit of length or distance in the SI system.
- Kilogram (kg): The unit of mass in the SI system, not used directly to measure work.

Q68. What is the unit of heat?
(a) Dyne
(b) Joule
(c) Joule/second
(d) Joule-second

Ans: B
Sol:
The correct answer is option (b) Joule.
Explanation
The unit of heat is the Joule (J), which is the standard SI unit of energy. Heat is a form of energy transfer, and the amount of heat transferred is measured in joules. One joule is defined as the amount of energy transferred when one newton of force moves an object one meter.
In thermodynamics, the joule is commonly used to quantify heat energy, as it is part of the standard unit system used to measure all forms of energy, including heat.
Information Booster
- 1 Joule (J) is equivalent to 1 $kg \cdot m^2/s^2$, which is the energy required to move a mass of 1 kilogram over a distance of 1 meter with a force of 1 newton.
- The unit Joule is used for all types of energy, including thermal energy (heat), mechanical energy, and electrical energy.

- Specific heat is typically expressed in Joules per kilogram per degree Celsius (J/kg°C) when describing the heat required to change the temperature of a substance.
- Calorie, another unit of heat, is sometimes used in specific contexts, but the SI unit remains the Joule.

Additional Knowledge

- Option (a) Dyne: A dyne is a unit of force in the CGS (centimeter-gram-second) system, not a unit of energy or heat. It is not used to measure heat.
- Option (b) Joule: This is the correct unit of heat. The joule is the standard SI unit for energy, and heat is measured in joules.
- Option (c) Joule/second: This unit represents power, not heat. Power is the rate of energy transfer, and the unit of power is the watt (W), where 1 watt = 1 joule/second.
- Option (d) Joule-second: This unit represents action (energy × time) and is not used to measure heat. The unit of heat is simply joule.

Q69. Which of the following processes involves the transfer of a source of energy (food) from outside the body of an organism to inside?

(a) Nutrition
(b) Transportation
(c) Metabolism
(d) Translocation

Ans: A

Sol:

The correct answer is (A) Nutrition.

Explanation:

Nutrition is the biological process by which organisms intake food from the external environment and convert it into energy and nutrients to sustain life. It includes ingestion, digestion, absorption, and assimilation.

Information Booster:

- Nutrition Types: Can be autotrophic (plants making food via photosynthesis) or heterotrophic (animals consuming plants or other animals).
- Energy Source: Food provides chemical energy in the form of glucose, which is later converted to ATP during respiration.
- Human Nutrition: Involves the digestive system, starting from the mouth and ending at the intestines.
- Nutrient Functions: Provide energy, growth, repair, and regulation of body processes.
- Photosynthesis: Main nutrition method in plants, involving sunlight, carbon dioxide, and water.

Additional Knowledge:

- Transportation: Movement of water, minerals, and food within the organism, especially in plants and animals.
- Metabolism: All biochemical reactions occurring inside the body, including anabolism and catabolism.
- Translocation: The process of transporting food (sugars) from leaves to other parts of a plant through phloem.

Q70. Deficiency of which vitamin in the diet is most commonly linked to poor vision in dim light (night blindness)?

(a) Vitamin C
(b) Vitamin A
(c) Vitamin B12
(d) Vitamin D

Ans: B

Sol:

The correct answer is: (B) Vitamin A

Explanation:

- Night blindness (nyctalopia) is most commonly caused by a deficiency of Vitamin A, which is essential for the production of rhodopsin, a light-sensitive pigment in the retina.
- Without enough Vitamin A, the eyes cannot adapt well to low-light conditions, leading to poor vision at night.

Information Booster:

- Vitamin A is a fat-soluble vitamin stored in the liver.
- Key sources include carrots, spinach, dairy products, and fish liver oil.
- Deficiency may also lead to xerophthalmia (dry eyes) and Bitot's spots.
- Vitamin A is also crucial for immune function and cell growth.
- Children and pregnant women are at higher risk of deficiency.

Additional Information:

- Vitamin C – Important for wound healing and collagen synthesis, but not related to night vision.
- Vitamin B12 – Involved in nerve function and red blood cell formation; its deficiency leads to anemia, not night blindness.
- Vitamin D – Essential for bone health and calcium absorption, unrelated to vision in low light.

Q71. What is the primary purpose of pasteurisation in food processing?

(a) To increase nutritional value
(b) To enhance flavour
(c) To kill harmful microorganisms
(d) To improve texture

Ans: C

Sol:

The correct answer is: (c) To kill harmful microorganisms

Explanation:

- Pasteurisation is a heat treatment process used mainly for milk and other liquids, where the liquid is heated to a specific temperature for a short time and then quickly cooled.
- This process kills harmful bacteria and pathogens without significantly affecting taste or nutritional value.

Information Booster:

- Named after Louis Pasteur, who developed the method in the 19th century.
- Commonly used in milk, juice, and dairy products.
- Helps extend shelf life by reducing microbial load.
- Standard milk pasteurisation is done at 72°C for 15 seconds (HTST method).
- It does not sterilise the food but makes it safe for consumption.

Q72. Into how many parts is the small intestine divided?

(a) Four
(b) Three
(c) Eight
(d) Ten

Ans: B

Sol:

The correct answer is option (b) Three.

Explanation

The small intestine is divided into three main parts:

1. Duodenum – The first and shortest section of the small intestine, where most of the chemical digestion occurs with the help of enzymes and bile.
2. Jejunum – The middle section, where most of the nutrient absorption takes place.
3. Ileum – The final and longest section, which absorbs nutrients that were not absorbed by the jejunum and connects to the large intestine.

These three sections work together to digest food and absorb nutrients from it. The structure of the small intestine, with its villi (small finger-like projections), increases the surface area, making nutrient absorption more efficient.

Information Booster

- The small intestine is about 6 meters long in adults.
- The duodenum is responsible for mixing bile and digestive enzymes with food to break it down.
- The jejunum is highly vascular and has a large surface area for nutrient absorption.
- The ileum absorbs vitamins B12 and bile acids before the remaining waste enters the large intestine.

Additional Knowledge

- Option (a) Four: This is incorrect. The small intestine is not divided into four parts; it is divided into three: duodenum, jejunum, and ileum.
- Option (b) Three: This is the correct answer. The small intestine has three parts: duodenum, jejunum, and ileum. These sections perform specialized functions for digestion and absorption.
- Option (c) Eight: This is incorrect. The small intestine does not have eight distinct sections. It only consists of three parts.
- Option (d) Ten: This is incorrect. The small intestine is not divided into ten parts. It has three sections as mentioned earlier.

Q73. The pH of gastric juice is _____.
(a) 7.4
(b) 2.2
(c) 1.2
(d) 10.0
Ans: C
Sol:
The correct answer is: C. 1.2
Explanation:
The pH of gastric juice can range between 1.2 to 3.0, with an average of about 1.5. This highly acidic environment is primarily due to the presence of hydrochloric acid (HCl).
The low pH aids in the digestion of food, especially proteins, and helps activate enzymes like pepsin. It also serves to sterilize the ingested food by killing harmful bacteria and pathogens.
Information Booster:
- Hydrochloric acid (HCl) in gastric juice plays a crucial role in activating pepsinogen (the inactive precursor of pepsin), which helps break down proteins in food.
- The acidic environment also facilitates the breakdown of food particles and protects against infections by killing most pathogens.
- The pH can vary slightly between individuals, but it generally stays within the acidic range of 1.2 to 3.0.

Q74. How many types of endoplasmic reticulum are there in cells?
(a) Five
(b) Three
(c) Four
(d) Two
Ans: D
Sol:
Correct Option: (d) Two
Solution:
In a cell, the endoplasmic reticulum (ER) is a vital organelle responsible for synthesis and transport. It exists in two primary forms based on its structure and function: Rough ER (RER) and Smooth ER (SER). These two types differ in presence of ribosomes and the roles they perform.
Information Booster:
1. Rough Endoplasmic Reticulum (RER):
   - Has ribosomes attached to its surface.
   - Involved in protein synthesis and modification.
   - Commonly found in cells that produce enzymes and antibodies.
2. Smooth Endoplasmic Reticulum (SER):
   - Lacks ribosomes on its surface.
   - Functions include lipid synthesis, detoxification, and calcium ion storage.
   - Prominent in liver and muscle cells.
3. Common Origin:
   - Both RER and SER are interconnected and originate from the nuclear envelope.
4. Functional Complementarity:
   - RER and SER often work together in cellular processes like hormone production and membrane formation.

Q75. If glucose :: six-carbon molecule, then pyruvate ::
(a) four-carbon molecule
(b) five-carbon molecule
(c) two-carbon molecule
(d) three-carbon molecule
Ans: D
Sol:
The correct answer is (D) three-carbon molecule.

Explanation:
Glucose is a six-carbon molecule ($C_6H_{12}O_6$). During glycolysis, glucose is broken down into two molecules of pyruvate, each containing three carbon atoms. Therefore, pyruvate is a three-carbon molecule.
Information Booster:
- Glycolysis is the process in which glucose (a six-carbon molecule) is broken down into two molecules of pyruvate (three-carbon molecules).
- This process occurs in the cytoplasm and results in the production of ATP and NADH.
- The conversion of glucose to pyruvate is essential for both aerobic and anaerobic respiration.

Q76. A solid iron rod is placed on the surface of the water. What would happen if the upthrust of water on the iron rod were greater than the downward force acting on it?
(a) The iron rod would float on water surface.
(b) The iron rod would move downwards.
(c) The iron rod would sink slowly.
(d) The iron rod would sink faster.
Ans: A
Sol:
The correct answer is: (A) The iron rod would float on water surface.
Explanation:
If the upthrust (buoyant force) exerted by the water on the iron rod is greater than the downward force (the weight of the rod), the rod will experience a net upward force.
This causes the iron rod to float on the water surface. The buoyant force exceeds the gravitational pull, and as a result, the rod does not sink but remains on the surface.
Information Booster:
- If the buoyant force is greater than the weight of the object, it will float.
- According to Archimedes' principle, the buoyant force is equal to the weight of the displaced fluid.
- When the upthrust is greater than the weight of the object, the object will not sink but rise to the surface or float at the surface.

Additional Information:
- The iron rod would move downwards: This would happen if the weight of the rod were greater than the buoyant force, causing it to sink.
- The iron rod would sink slowly: This would occur if the buoyant force were still less than the weight.
- The iron rod would sink faster: This would happen if the upthrust was significantly less than the downward force, leading to faster sinking.

Q77. When we are standing in a bus facing towards the driver and the bus begins to move straight suddenly, we tend to fall:
(a) backwards
(b) left side
(c) right side
(d) forward
Ans: A
Sol:
The correct answer is: (A) Backwards
Explanation:
When the bus suddenly starts moving forward, your body tends to resist this change in motion due to inertia, a property of matter described by Newton's First Law of Motion.
As the bus accelerates forward, your body initially remains at rest, and it appears to move backwards relative to the bus. This resistance to the change in motion causes you to fall backwards.
Information Booster:
- Inertia: It is the tendency of an object to resist changes in its state of motion. When the bus accelerates suddenly, your body resists the change and appears to move backwards.
- Newton's First Law of Motion: This law states that an object will remain at rest or continue moving at a constant velocity unless acted upon by an external force.
- The backward fall occurs because, at the moment the bus starts moving, your body is not in motion and has to catch up with the bus's forward motion.

Additional Information:

- Left side: You would only fall to the left side if the bus turns left suddenly.
- Right side: Similarly, you would only fall to the right side if the bus turns right suddenly.
- Forward: You would fall forward only if the bus decelerated suddenly, causing your body to continue moving forward due to inertia.

Q78. A gas can be liquefied by

(a) low pressure and high temperature
(b) low pressure and low temperature
(c) high pressure and low temperature
(d) high pressure and high temperature

Ans: C

Sol:

The correct answer is (C) High pressure and low temperature.

Explanation:

A gas can be liquefied by applying high pressure and lowering the temperature. Under these conditions, the gas molecules are brought closer together, and their kinetic energy decreases, allowing them to form a liquid state. This is the principle behind liquefaction in gases such as oxygen and nitrogen.

Information Booster:

- Critical temperature: The temperature above which a gas cannot be liquefied by pressure alone.
- Critical pressure: The pressure required to liquefy a gas at its critical temperature.
- Boyle's law and Charles's law explain how pressure and temperature affect the state of a gas.
- Example: Carbon dioxide (CO_2) can be liquefied by increasing the pressure and lowering the temperature below its critical temperature.

Q79. Formation of the mixture is a _____ change whereas formation of a compound is a _____ change, respectively.

(a) physical, physical
(b) physical, chemical
(c) chemical, chemical
(d) chemical, physical

Ans: B

Sol:

The correct answer is (B) Physical, chemical.

Explanation:

Formation of a mixture involves no new substance and components retain their original properties, making it a physical change. Formation of a compound involves a chemical reaction where a new substance is formed with new properties, making it a chemical change.

Information Booster:

- Mixtures can be homogeneous (uniform composition) or heterogeneous (non-uniform).
- Compounds have constant composition and defined formulas (e.g., H_2O, CO_2).
- In mixtures, energy is usually not absorbed or released.
- Compounds often involve heat exchange during formation (exothermic or endothermic).
- Mixtures show the individual properties of components, while compounds show entirely new properties.

Q80. The LCM of 36, 63, 372 and 126 is:

(a) 7813
(b) 7860
(c) 7897
(d) 7812

Ans: D

Sol:

Given:

Numbers: 36, 63, 372, 126

Formula Used:

LCM = Multiply the highest powers of all prime factors from the given numbers.

Solution:
Prime factorization of 36 = $2^2 \times 3^2$
Prime factorization of 63 = $3^2 \times 7$
Prime factorization of 372 = $2^2 \times 3 \times 31$
Prime factorization of 126 = $2 \times 3^2 \times 7$
LCM = $2^2 \times 3^2 \times 7 \times 31 = 7812$
The LCM of 36, 63, 372, and 126 is 7812.

Q81. If x+1xx1=7, find the value ofx3+1x3x3+x31?
(a) 343
(b) 332
(c) 340
(d) 322
Ans: D
Sol:
Given:
x+1x=7x+x1=7
x3+1x3x3+x31= ?
Formula Used:
We use the identity for cubes:
x3+1x3=(x+1x)3−3(x+1x)x3+x31=(x+x1)3−3(x+x1)
Solution:
x3+1x3=(x+1x)3−3(x+1x)x3+x31=(x+x1)3−3(x+x1)
x3+1x3=73−3×7x3+x31=73−3×7
x3+1x3=343−21=322x3+x31=343−21=322

Q82. If sin A =513135, then find the value ofcos A−2tan Asin A+3tan Asin A+3 tan Acos A−2 tan A.
(a) 1125525511
(b) 1225525512
(c) 1425525514
(d) 1325525513
Ans: C
Sol:
Given:
sinA=513sinA=135
Find the value ofcosA−2tanAsinA+3tanAsinA+3tanAcosA−2tanA
Concept Used:
Pythagorean Theorem
sinA=OppositeHypotenusecosA=AdjacentHypotenusetanA=OppositeAdjacentsinA=HypotenuseOpposite
cosA=HypotenuseAdjacent tanA=AdjacentOpposite
Solution:
sinA=513sinA=135
Opposite side (BC) = 5 units
Hypotenuse (AC) = 13 units
Adjacent Side (AB) using Pythagoras Theorem
AB=AC2−BC2AB=AC2−BC2
=132−52132−52
=169−25169−25
=144144 = 12 units
cosA=AdjacentHypotenuse=1213cosA=HypotenuseAdjacent=1312
tanA=OppositeAdjacent=512tanA=AdjacentOpposite=125
cosA−2tanAsinA+3tanA=1213−2×512513+3×512sinA+3tanAcosA−2tanA=135+3×1251312−2×125
=1213−56513+×54135+×451312−65
=72−657820+65525220+657872−65

=77885525285787
=778×5285787×8552
=76×48567×854
=73×28537×852
=1425525514

Q83. If a - b = 5 and ab = 25, then the value ofa3−b3a3−b3 is:
(a) 525
(b) 500
(c) 450
(d) 400
Ans: B
Sol:
Given:
a - b = 5
ab = 25
Formula Used:
Algebraic identity:
$a^3 - b^3 = (a - b)(a^2 + ab + b^2)$
Solution:
$(a - b)^2 = 5^2$
$a^2 - 2ab + b^2 = 25$
$a^2 - 2(25) + b^2 = 25$
$a^2 + b^2 = 75$
$a^3 - b^3 = (a - b)(a^2 + ab + b^2)$
$a^3 - b^3 = 5 (75 + 25)$
$a^3 - b^3 = 5×× 100$
$a^3 - b^3 = 500$
Therefore, the value of $a^3 - b^3$ is 500

Q84. A train crosses two bridges 600 m and 1200 m long in 90 seconds and 150 seconds, respectively. The length of the train is :
(a) 100 m
(b) 150 m
(c) 200 m
(d) 300 m
Ans: D
Sol:
Given:
Length of first bridge = 600 m, time to cross = 90 sec
Length of second bridge = 1200 m, time to cross = 150 sec
Formula Used:
Distance = Speed × Time
Solution:
When a train crosses a bridge, it travels a distance equal to (length of train + length of bridge).
Speed of train remains constant in both cases.
Let the length of train be L.
L+60090=L+120015090L+600=150L+1200
150(L+600) = 90(L+1200)
150L + 90000 = 90L + 108000
150L - 90L = 108000 - 90000
60L = 18000
L =180006618000
L = 300 m
Thus, the correct answer is (d).

Q85. If 7 tan θ = 3, then(7sinθ+5cosθ)(7sinθ−2cosθ)(7sinθ−2cosθ)(7sinθ+5cosθ) is:
(a) 7
(b) 5
(c) 8
(d) 6
Ans: C
Sol:
Given:
7 tan θ = 3,
Solution:
7 tan θ = 3,
tan θ =3773
(7sinθ+5cosθ)(7sinθ−2cosθ)(7sinθ−2cosθ)(7sinθ+5cosθ)
Numerator and Denominator bycosθcosθ
Then,
(7sinθ+5cosθ)cosθ(7sinθ−2cosθ)cosθcosθ(7sinθ−2cosθ)cosθ(7sinθ+5cosθ)
=(7tanθ+5)(7tanθ−2)(7tanθ−2)(7tanθ+5)
=(7×37+5)(7×37−2)3+53−2(7×73−2)(7×73+5) 3−23+5
= 8

Q86. If the income of Ravi is 24% more than that of Ram, then by what percentage is the income of Ram less than that of Ravi?
(a) 70011%11700%
(b) 60031%31600%
(c) 40031%31400%
(d) 50031%31500%
Ans: B
Sol:
Given:
If the income of Ravi is 24% more than that of Ram.
Solution:
Let Ram's income be ₹100 .
Since Ravi's income is 24% more than Ram's income, Ravi's income = ₹100 + (24% of ₹100) = ₹100 + ₹24 = ₹124
Difference in income = ₹124 - ₹100= ₹124
Required Percentage =(Difference in incomeRavi's income)×(Ravi's incomeDifference in income)× 100
Required Percentage =₹24₹124×₹124₹24× 100
Percentage increase =60031%31600%

Q87. The sentence given below has one misspelt word. Spot the INCORRECTLY spelt word and select its correct spelling.
She wraped the gift in a gift paper.
(a) Vraped
(b) Vrapped
(c) Wrapped
(d) Wrraped
Ans: C
Sol:
Option (c) Wrapped is the correct spelling.
Correct spelling is: "Wrapped" – It means to enclose or cover something with paper, cloth, or other material. (लपेटना या पैक करना)
Example: She wrapped the gift beautifully with a red ribbon.
Meanings of all the given options:
•→(a) Vraped – No such word exists; phonetically and orthographically incorrect.
•→(b) Vrapped – Incorrect prefix 'V'; not a valid English word.
•→(c) Wrapped – Correct spelling: past tense of wrap.
•→(d) Wrraped – Extra 'r' makes it an incorrect spelling.

Part of Speech of 'Wrapped': Verb (Past tense and past participle of wrap)

Q88. Select the most appropriate meaning of the given idiom.
Fish out of water
(a) Be nostalgic about something
(b) Be a survivor
(c) Not feeling comfortable in a new environment
(d) Go fishing
Ans: C
Sol:
Option (c) is the correct meaning of the given idiom.
Idiom – Fish out of water: To feel awkward or uncomfortable in unfamiliar surroundings or situations. (ऐसी जगह या परिस्थिति में होना जहाँ आप असहज महसूस करें)
Example: At the formal dinner, dressed in jeans, I felt like a fish out of water.
Other related idioms and their meanings:
•→Out of one's element – Not comfortable in a particular situation.
•→Square peg in a round hole – Someone unsuitable for a job or situation.
•→In deep water – In serious trouble or difficulty.

Q89. Select the most appropriate ANTONYM of the given word.
Blank
(a) Valuate
(b) Trembled
(c) Filled
(d) Filed
Ans: C
Sol:
The correct antonym of the given word is (c) Filled.
Blank: Empty or unmarked; without any writing, content, or expression. (खाली, रिक्त)
Example: He gave me a blank sheet of paper for the test.
Filled: Containing as much as possible; not empty. (भरा हुआ)
Example: The bucket was filled with water to the brim.
Synonyms (of Blank): empty, vacant, void, bare
Antonyms: filled, loaded, occupied, stuffed
Meanings of all the other given options:
•→(a) Valuate: To assess or estimate the value of something. (मूल्यांकन करना)
•→(b) Trembled: Shook involuntarily, usually from fear or cold. (कांपना)
•→(d) Filed: To place in an organized record or storage. (दर्ज करना, फाइल करना)

Q90. Select the most appropriate synonym of the given word to fill in the blank in the sentence.
Daunt
My coach said, "Failures didn't _____ the hero."
(a) brave
(b) moralize
(c) discourage
(d) hopeless
Ans: C
Sol:
The correct synonym of the given word is (c) discourage.
Daunt: To make someone feel afraid or less confident; to intimidate or demoralize. (डराना, हतोत्साहित करना)
Example: The vast syllabus didn't daunt the dedicated student.
Discourage: To cause someone to lose confidence or enthusiasm. (हतोत्साहित करना)
Example: Repeated failures did not discourage the young entrepreneur.

Synonyms: intimidate, dishearten, unnerve, demoralize
Antonyms: encourage, inspire, uplift, boost
Meanings of all the other given options:
•→(a) brave – To face something difficult with courage. (साहसी होना)
•→(b) moralize – To express moral judgments. (नीति की शिक्षा देना)
•→(d) hopeless – Without hope or expectation. (निराशाजनक)

Q91. Select the most appropriate option to fill in the blank.
One night, a hunter_____ near a river when he began to dream.
(a) was slept
(b) sleep
(c) is sleeping
(d) was sleeping
Ans: D
Sol:
The correct option to fill in the blank is (d) was sleeping.
Explanation:
•→The sentence describes a past event interrupted by another action, which calls for past continuous tense.
•→Structure: Subject + was/were + V1+ing
•→"He began to dream" is simple past (interruption), so the ongoing action must be in past continuous.
Example:
I was watching TV when the lights went out.
Why other options are incorrect:
•→(a) was slept – Incorrect structure; "slept" is past tense, not used with "was" in active voice.
•→(b) sleep – Simple present; tense mismatch.
•→(c) is sleeping – Present continuous; doesn't match the past narration.
Grammar Info Booster:
Use past continuous to describe an action in progress at a particular time in the past or an action interrupted by another.

Q92. When water enters into the guard cells, the guard cells _____ and the stomatal pore -
(a) shrink ; closes
(b) swell ; opens
(c) shrink ; opens
(d) swell ; shrinks
Ans: B
Sol:
The Correct Answer is: (b) swell ; opens
Explanation:
Guard cells are specialized cells surrounding the stomatal pore on the surface of leaves. When they absorb water (become turgid) due to osmosis, they swell
and their inner walls (which are thicker) bend outward, causing the stomatal pore to open.
This mechanism allows for gas exchange and transpiration during the daytime.
Information Booster:
• Proper stomatal function is vital for photosynthesis and cooling of plant tissues.
• Guard cells have uneven cell wall thickness — thinner on the outer side and thicker on the inner side.
• Turgidity causes the opening, and loss of turgor causes closure of the stomatal pore.
• The process is influenced by light, water availability, and CO_2 concentration.
• Stomatal opening is an example of plant osmoregulation.

Q93. A positive and negative sign in the magnification indicates that the images are:
(a) real and virtual, respectively
(b) both real in nature
(c) virtual and real, respectively
(d) both virtual in nature

Ans: C
Sol:
The Correct Answer is: (c) Virtual and real, respectively
Explanation:
Magnification (M) is defined as:
M=height of imageheight of object=−vuM=height of objectheight of image=u−v
The sign of magnification helps us understand the nature of the image:

- A positive magnification means the image is virtual (commonly formed by plane mirrors, convex mirrors, and concave lenses).
- A negative magnification means the image is real (commonly formed by concave mirrors and convex lenses in certain positions).

Information Booster:

- Real images are always inverted and formed on a screen.
- Virtual images are always upright and cannot be obtained on a screen.
- Plane mirrors always produce images with +1 magnification (same size, erect, and virtual).

Q94. "आदर" का विलोम शब्द क्या है ?
(a) अनादर
(b) प्रेम
(c) मान
(d) मित्रता
Ans: A
Sol:
सही उत्तर: विकल्प (A) है।
व्याख्या:
"आदर" का विलोम शब्द "अनादर" है। "आदर" का अर्थ है सम्मान या मान, जबकि "अनादर" का अर्थ होता है अपमान या सम्मान न देना।
सभी विकल्पों का विश्लेषण:

विकल्प	शब्द	विश्लेषण
A	आदर	आदर का विलोम शब्द 'अनादर' होता है। आदर के कुछ पर्यायवाची शब्द हैं: सम्मान, प्रतिष्ठा, इज्जत, कद्र, सत्कार, समादर, और पूज्यभाव। अनादर के पर्यायवाची शब्द हैं: अपमान, निरादर, तिरस्कार, बेइज्जती, अवमानना, और उपेक्षा।
B	प्रेम	गलत, "प्रेम" का विलोम नहीं होता। प्रेम का विलोम शब्द घृणा या नफ़रत है। प्रेम के कई पर्यायवाची शब्द हैं, जैसे: प्यार, मोहब्बत, इश्क़, स्नेह, अनुराग, और प्रणय। घृणा के कुछ पर्यायवाची शब्द हैं: नफ़रत, द्वेष, वितृष्णा, अरुचि, और तिरस्कार।
C	मान	गलत, "मान" का विलोम शब्द "अपमान" होता है, "आदर" से नहीं। मान के कुछ पर्यायवाची शब्द हैं: सम्मान, आदर, प्रतिष्ठा, इज्जत, गौरव। अपमान का पर्यायवाची शब्द: •→अपमानित •→अपनमन •→अवमान •→निंदा •→आघात •→अभिशाप •→उपहास •→तिरस्कार; निरादर; तिरस्कृत; अवमानित; निन्दित; अवहेलना; घृणा; बदनाम; बेइज्जती; निर्मर्दन; तिरस्कारित; निंदित
D	मित्रता	गलत, "मित्रता" का विलोम शब्द "शत्रुता" होता है। मित्रता के कई पर्यायवाची शब्द: जैसे दोस्ती, सख्य, मैत्री, प्रीति, याराना, और सौहार्द। शत्रुता के पर्यायवाची : अदावत, अनबन, अनरस, अप्रीति, अभ्यागम, अमित्रता

Q95. निम्नलिखित में से कौन 'कमल' का पर्यायवाची नहीं है?
(a) राजीव
(b) कुवलय
(c) जलद
(d) अंबुज
Ans: C
Sol:

सही उत्तर:(C) जलद
व्याख्या: "कमल" के पर्यायवाची शब्द हैं राजीव, कुवलय, और अंबुज, जो सभी कमल के विभिन्न संदर्भों में उपयोग किए जाते हैं। जलद का अर्थ "बादल" होता है, और यह कमल का पर्यायवाची नहीं है। जलद का उपयोग बादलों के लिए साहित्यिक और काव्यात्मक रूप में किया जाता है।
विकल्पों का विश्लेषण:

विकल्प	शब्द	सही या गलत
(A)	राजीव	सही (कमल का पर्यायवाची)
(B)	कुवलय	सही (कमल का पर्यायवाची)
(C)	जलद	गलत (जलद का अर्थ "बादल" होता है, यह कमल का पर्यायवाची नहीं है)
(D)	अंबुज	सही (अंबुज का अर्थ "जल में उत्पन्न" है, जो कमल का पर्यायवाची है)

जलद का पर्यायवाची:
- घन: यह शब्द भी "बादल" के लिए प्रयोग किया जाता है।
- मेघ: संस्कृत में बादल के लिए एक प्रसिद्ध पर्यायवाची है।
- नीरद: "जल देने वाला" बादल के लिए उपयोग होता है।
- दिवज: यह शब्द "आकाश में उत्पन्न" के रूप में बादल का वर्णन करता है।
- वरिद: संस्कृत में वर्षा करने वाले बादल के लिए।

महत्वपूर्ण तथ्य:
1. राजीव: विशेष रूप से लाल कमल का उल्लेख करता है।
2. कुवलय: संस्कृत में कमल के लिए प्रचलित शब्द है।
3. अंबुज: "जल में उत्पन्न" का अर्थ है, जो कमल के लिए सटीक है।
4. जलद: इसका अर्थ है "बादल" और यह कमल से संबंधित नहीं है।

सूचना बूस्टर:
- कमल के अन्य पर्यायवाची शब्द हैं: नलिन, सरोज, पद्म, तामरस।
- जलद के पर्यायवाची में मेघ, घन, और नीरद शामिल हैं।

Q96. कौन सा समास-विग्रह गलत है ?
(a) चौराहा = चार हैं जो रास्ते
(b) तपोधन = तप (तपस्या) ही धन है जिसका
(c) नीलोत्पल = नीला है जो उत्पल
(d) राष्ट्रभक्ति = राष्ट्र के लिए भक्ति

Ans: A
Sol:
सही उत्तर:(A)चौराहा = चार हैं जो रास्ते
व्याख्या:
•→चौराहा शब्द का समास-विग्रह "चार राह" है, जिसका अर्थ है "चार रास्ते", न कि "चार हैं जो रास्ते"। यह समास द्विगु समास के अंतर्गत आता है। इसलिए "चार हैं जो रास्ते" का समास-विग्रह गलत है।
अन्य विकल्पों का विश्लेषण:

विकल्प	समास-विग्रह	समास का नाम
(A) चौराहा	"चार राहों का समूह"	द्विगु समास
(B) तपोधन	तप (तपस्या) ही धन है जिसका	तत्पुरुष समास
(C) नीलोत्पल	नीला है जो उत्पल	कर्मधारय समास
(D) राष्ट्रभक्ति	राष्ट्र के लिए भक्ति	तत्पुरुष समास

अतिरिक्त जानकारी:
समास - समास उस प्रक्रिया को कहते हैं, जिसमें दो शब्द मिलकर उनके बीच के संबंधसूचक आदि का लोप करके नया शब्द बनाया जाता है। समास से तात्पर्य संक्षिप्तिकरण से है। समास के माध्यम से कम शब्दों में अधिक अर्थ प्रकट किया जाता है। जैसे - राजा का पुत्र = राजपुत्र।
समास के प्रकार निम्नलिखित हैं:

समास का नाम	परिभाषा	उदाहरण

तत्पुरुष समास	जिस समास में उत्तरपद प्रधान हो तथा समास करने के उपरांत विभक्ति (कारक चिह्न) का लोप हो।	गृहस्वामी = घर का मालिक , विद्यादाता = विद्या का दाता
बहुव्रीहि समास	जिस समास में दोनों पद प्रधान नहीं होते हैं और दोनों पद मिलकर किसी अन्य विशेष अर्थ की ओर संकेत करते हैं।	चक्रपाणि = जिसके हाथ में चक्र हो, चतुर्वेदी = चार वेद जानने वाला
कर्मधारय समास	जिस समास में विशेषण और विशेष्य के रूप में दोनों पद का संबंध हो।	श्वेतपुष्प = सफेद रंग का फूल, महानगर = महान है जो नगर
द्विगु समास	जिस समास में पूर्वपद (पहला पद) संख्यावाचक विशेषण हो।	चतुर्दिक = चार दिशाओं का समूह, सप्तसागर = सात समुद्र का समूह
अव्ययीभाव समास	जिस समास में पहला पद प्रधान हो और समस्त पद अव्यय का काम करें।	शीघ्रागमन = जल्दी आने वाला, प्रत्यक्ष = सामने रखे हुए
द्वन्द्व समास	द्वन्द्व समास में समस्तपद के दोनों पद समान रूप से प्रधान होते हैं। "और," "या," "एवं" आदि शब्दों का लोप होने पर बनता है।	रामलक्ष्मण = राम और लक्ष्मण, सूर्यचंद्र = सूर्य और चंद्रमा

निष्कर्ष:
इसलिए, "चौराहा = चार हैं जो रास्ते" समास-विग्रह गलत है, और सही समास-विग्रह "चार राहों का समूह" होगा।

Q97. 'महेश' शब्द मे कौन सी संधि है -
(a) गुण संधि
(b) अयादि संधि
(c) यण संधि
(d) व्यंजन संधि

Ans: A
Sol:
सही उत्तर: विकल्प (A) गुण संधि है।
व्याख्या:
महा + ईश = महेश होता है। महेश शब्द में गुण संधि है, गुण संधि में आ और ई मिलकर ए बनता है।
अतिरिक्त जानकारी:
सन्धि के तीन भेद होते हैं-
(1) स्वर-सन्धि
(2) व्यंजन सन्धि
(3) विसर्ग सन्धि
(1) स्वर संधि के प्रकार और उनके नियम व उदाहरण:
(2) व्यंजन संधि के नियमों को सारणी में व्यवस्थित किया है:

संधि का प्रकार	**नियम**	**उदाहरण**	**विच्छेद**
1. दीर्घ संधि	दो सजातीय स्वरों के मिलने से दीर्घ स्वर बनता है।	पुस्तकालय	पुस्तक + आलय
		विद्यार्थी	विद्या + अर्थी
		महात्मा	महा + आत्मा
2. गुण संधि	'अ' या 'आ' के साथ इ/ई हो तो 'ए', उ/ऊ हो तो 'ओ', और ऋ हो तो 'अर' बनता है।	नरेंद्र	नर + इंद्र
		ज्ञानोपदेश	ज्ञान + उपदेश
		महर्षि	महा + ऋषि
3.वृद्धि संधि	'अ'/'आ' के साथ ए/ऐ हो तो 'ऐ' और ओ/औ हो तो 'औ' बनता है।	सदैव	सदा + एव
		वनौषधि	वन + औषधि
		महौदार्य	महा + औदार्य
4. यण संधि	इ/ई का 'य', उ/ऊ का 'व', और ऋ का 'र' बनता है।	इत्यादि	इति + आदि
		स्वागत	सु + आगत
		अध्ययन	अधि + अयन
5.अयादि संधि		नयन	ने + अन

	ए का अय, ऐ का आय, ओ का अव, और औ का आव बनता है।	नाविक	नौ + इक
		पवित्र	पो + इत्र
व्यंजन संधि के **नियम**	**स्पष्टीकरण**	**उदाहरण**	
1. क, च, ट, त, प का मिलन वर्ग के तृतीय या चतुर्थ वर्ण से (ग, ज, ड, द, ब) या स्वर के साथ	क → ग, च → ज, ट → ड, त → द, प → ब में बदल जाता है।	दिक् + अंबर = दिगंबर, वाक् + ईश = वागीश, षट् + यंत्र = षड्यंत्र	
2. क, म, ट, त, प का मिलन न या म से हो	क → ङ, ट → ण, त → न, प → म में बदल जाता है।	वाक् + मय = वाङ्मय, दिक् + मंडल = दिङ्मण्डल, षट् + मास = षण्मास	
3. त का मिलन ग, घ, द, ध, प, म, य, र, स्वर से	त → द हो जाता है।	तत+ उपरांत- तदुपरांत, उत+ घाटन- उद्घाटन, जगत+ अंबा- जगदंबा	
4. व्यंजन वर्ण के मिलन पर अनुस्वार	म् + य, र, ल, व, श, ष, स, ह के मिलन पर अनुस्वार लगता है।	सम् + रचना = संरचना, सम् + लग्न = संलग्न	
5. त का मिलन च्, छ, ज्, झ्, ट्, ड् से	त → च्, छ, ज्, झ्, ट्, ड् में बदल जाता है।	उत् + चारण = उच्चारण, शरत् + चन्द्र = शरच्चन्द्र	
6. त या द के साथ ह् का मिलन	त → द, ह् → ध् में बदल जाता है।	सत् + जन = सज्जन, जगत् + जीवन = जगज्जीवन	
7. स्वर के बाद छ आने पर	छ के पहले च् बन जाता है।	स्व + छंद = स्वच्छंद, आ + छादन = आच्छादन	
8. म् के बाद क् से म् तक कोई व्यंजन	म् अनुस्वार में बदल जाता है।	सम् + कल्प = संकल्प, सम् + ख्या = संख्या, सम् + चय = संचय, किम् + चित = किंचित, किम् + कर = किंकि	
9. म् के बाद म का द्वित्व	म् + म का द्वित्व हो जाता है।	सम् + मति = सम्मति, सम् + मान = सम्मान	
10. त या द के साथ श का मिलन	त या द → च्, श → छ।	उत् + श्वास = उच्छवास, उत् + शृंखल = उच्छृंखल	
11. ऋ, र्, ष् से परे न् का ण्	न् → ण् हो जाता है जब बीच में कोई स्वर, क, ख, ग, घ, प, फ, ब, भ, म, य, र, ल, व हो।	परि + नाम = परिणाम, राम + अयन = रामायण	
12. स् के साथ स्वर का मिलन	स्वर के बाद ष में बदल जाता है।	अभि + सिक्त = अभिषिक्त, वि + सम = विषम	
13. ऋ, र या ष के साथ न का मिलन	न के स्थान पर ण हो जाता है।	राम + अयन = रामायण, परि + नाम = परिणाम	

(3) विसर्ग संधि और उसके नियम:

नियम संख्या	**विवरण**	**उदाहरण**
1	विसर्ग के बाद च या छ के मिलने पर विसर्ग "श्" बन जाता है।	मनः + चकित = मनश्चकित
2	विसर्ग से पहले अ, आ को छोड़कर अन्य स्वर हो और बाद में कोई स्वर, य्, र, ल, व, ह आदि हो तो विसर्ग "र्" बन जाता है।	यशः + कृति = यश:कृति
3	विसर्ग से पहले स्वर और बाद में च, छ या श हो तो विसर्ग "श" बन जाता है।	चतुः + शिखा = चतु:शिखा
4	विसर्ग के बाद त या स होने पर विसर्ग "स्" बन जाता है।	अन्तः + स्थल = अन्तस्तल
5	विसर्ग से पहले इ, उ और बाद में क, ख, ट, ठ, प, फ होने पर विसर्ग "ष" बन जाता है।	धनुः + टंकार = धनुष्टंकार
6	विसर्ग से पहले अ, आ हो और बाद में भिन्न स्वर हो तो विसर्ग का लोप हो जाता है।	अतः + आदि = अतआदि
7	विसर्ग के बाद क, ख, प, फ होने पर कोई परिवर्तन नहीं होता।	निः + कृत = निष्कृत
8	विसर्ग के पहले इ, उ हो और बाद में "र" हो तो विसर्ग का लोप होकर इ, उ "ई" व "ऊ" बन जाते हैं।	निः + रव = नीरव
9	विसर्ग के पहले अ हो और बाद में भिन्न स्वर होने पर विसर्ग का लोप हो जाता है।	पयः + आदि = पयआदि
10	विसर्ग के पहले अ हो और बाद में अ, ग, घ, ज, ड, ढ, द, ध, न, ब, भ, म, य, र, ल, व, ह आदि हो तो विसर्ग "ओ" बन जाता है।	सरः + ज = सरोज

Q98. निम्नलिखित में से तद्भव शब्द है

(a) मयंक

(b) संतान

(c) वानर

(d) धूलि

Ans: B

Sol:

सही उत्तर: विकल्प (D) धूलि है।

व्याख्या:

तद्भव शब्द वे शब्द होते हैं जो संस्कृत से व्यावहारिक रूप से भारतीय भाषाओं में आए हैं और जिनमें कुछ रूपात्मक परिवर्तन हुआ है।

'धूलि' संस्कृत के शब्द 'धूल' से आया है, जिसमें एक रूपात्मक परिवर्तन हुआ है, इसीलिए यह तद्भव शब्द है।

सभी विकल्पों का विश्लेषण:

विकल्प	विश्लेषण
A. मयंक	यह संस्कृत का मूल रूप है और तद्भव नहीं है।
B. संतान	यह संस्कृत शब्द 'संतान' से आया है, लेकिन यह संस्कृत से सीधे रूप में लिया गया है, अतः यह तद्भव शब्द नहीं है।
C. वानर	यह संस्कृत शब्द 'वानर' से लिया गया है, और इसका रूप वही है, तो यह भी तद्भव शब्द नहीं है।
D. धूलि	सही उत्तर है। यह संस्कृत शब्द 'धूल' से आया है, जिसमें रूपात्मक परिवर्तन हुआ है।

Q99. इनमें से तत्सम और तद्भव का एक युग्म गलत है

(a) प्रिय - प्रिया

(b) चुल्लि: - चूल्हा

(c) शक्तु - सत्तू

(d) खर्पर - खपरा

Ans: A

Sol:

सही उत्तर: विकल्प (A) प्रिय - प्रिया है।

व्याख्या:

'प्रिय' शब्द संस्कृत से सीधे आया हुआ है और यह तत्सम शब्द है। 'प्रिया' शब्द हिंदी में तद्भव रूप में रूपांतरित हुआ है, जिसका अर्थ 'प्रिय' से जुड़ा हुआ है, लेकिन 'प्रिय' का तद्भव रूप 'पिय' होना चाहिए, न कि 'प्रिया'। इस प्रकार, 'प्रिय' और 'प्रिया' युग्म गलत है।

सभी विकल्पों का विश्लेषण:

अतिरिक्त जानकारी:

विकल्प	**विश्लेषण**
A. प्रिय - प्रिया	गलत है। 'प्रिय' का तद्भव रूप 'पिय' होना चाहिए, न कि 'प्रिया'।
B. चुल्लि: - चूल्हा	सही है, 'चुल्लि:' संस्कृत का शब्द है और 'चूल्हा' इसका तद्भव रूप है।
C. शक्तु - सत्तू	सही है, 'शक्तु' संस्कृत का शब्द है और 'सत्तू' इसका तद्भव रूप है।
D. खर्पर - खपरा	सही है, 'खर्पर' संस्कृत का शब्द है और 'खपरा' इसका तद्भव रूप है।

तत्सम और तद्भव शब्द

तत्सम शब्द:

हिंदी में वह शब्द जो संस्कृत से सीधे आ गए हैं और आज भी वही रूप उपयोग में हैं, उन्हें तत्सम शब्द कहा जाता है। उदाहरण:

- वायु (तत्सम शब्द)
- सूर्य (तत्सम शब्द)

तद्भव शब्द:

वह शब्द जो संस्कृत से परिवर्तित होकर बने हैं, अर्थात संस्कृत शब्दों के रूप में कुछ बदलाव के साथ वे हिंदी में इस्तेमाल होते हैं। इसे तद्भव शब्द कहते हैं।

उदाहरण:

- सीख (तद्भव शब्द)
- काठ (तद्भव शब्द)

कुछ महत्वपूर्ण तत्सम - तद्भव शब्द:

तद्भव शब्द	तत्सम शब्द
अकथ	अकथ्य
अकाज	अकार्य
अकेला	एकल
क्यों	किंपुनः
खंडहर	खण्डगृह
खत्री	क्षत्रिय
नींबू	निम्बक
नीम	निम्ब

Q100. पदक्रम की दृष्टि से कौन सा वाक्य शुद्ध है?

(a) हे विधाता, मुझे सद्बुद्धि प्रदान करें।
(b) हे विधाता, सद्बुद्धि प्रदान करें मुझे।
(c) सद्बुद्धि मुझे, हे विधाता, प्रदान करें।
(d) मुझे सद्बुद्धि प्रदान करें, हे विधाता।

Ans: A

Sol:

सही उत्तर: A (हे विधाता, मुझे सद्बुद्धि प्रदान करें।)

व्याख्या:

वाक्य "हे विधाता, मुझे सद्बुद्धि प्रदान करें" व्याकरणिक दृष्टि से सबसे शुद्ध है। इसमें "हे विधाता" का प्रयोग सम्बोधन के रूप में हुआ है और फिर "मुझे सद्बुद्धि प्रदान करें" का सामान्य वाक्य विन्यास है, जो शुद्ध है।

सभी विकल्पों का विश्लेषण:

विकल्प	वाक्य	विश्लेषण
A	"हे विधाता, मुझे सद्बुद्धि प्रदान करें।"	सही उत्तर है, क्योंकि यह वाक्य सही पदक्रम और व्याकरणिक संरचना के साथ है।
B	"हे विधाता, सद्बुद्धि प्रदान करें मुझे।"	यह वाक्य संरचना में थोड़ी असामान्यता है। "मुझे" को अंत में रखना उपयुक्त नहीं है।
C	"सद्बुद्धि मुझे, हे विधाता, प्रदान करें।"	यह वाक्य भी सही नहीं है, क्योंकि इसमें शब्दों का पदक्रम उल्टा है और व्याकरणिक दृष्टि से असामान्य है।
D	"मुझे सद्बुद्धि प्रदान करें, हे विधाता।"	इस वाक्य में "हे विधाता" का अंत में आना थोड़ा असामान्य है, जबकि आदर्श रूप में यह सम्बोधन वाक्य के शुरुआत में आता है।

अतिरिक्त जानकारी:

जब हम किसी से विनती या प्रार्थना करते हैं, तो सम्बोधन को पहले रखा जाता है, उसके बाद वाक्य का मुख्य भाग आता है। "हे विधाता" एक सम्बोधन है और इसे वाक्य की शुरुआत में ही रखना उपयुक्त होता है।