UPCATET General Studies Sample Paper-9

Duration: 10 Minutes **Maximum Marks: 80**

Instructions

- This paper contains **20** Multiple Choice Questions.
- Each correct answer carries **+4** mark. Incorrect answer: **−1** marks. Only **one** correct option.
- Unattempted questions carry **0** marks.
- Use of mobile phones, smartwatches, or any electronic gadgets is strictly prohibited.

Q1. The alignment of the ancient Shahi Canal system, which historically revitalized the agricultural tracts of Rohilkhand, primarily falls within which modern administrative division of Uttar Pradesh?

(A) Bareilly Division

(B) Jhansi Division

(C) Mirzapur Division

(D) Gorakhpur Division

Q2. Which of the following constitutional provisions explicitly empowers the Governor of a state to reserve a specific Bill passed by the State Legislature for the consideration of the President of India?

(A) Article 163

(B) Article 200

(C) Article 213

(D) Article 167

Q3. Consider the following information regarding a common agricultural challenge to answer the question below:

A progressive farmer in western Uttar Pradesh notices that the older leaves of his sugarcane crop are exhibiting severe interveinal chlorosis, while the leaf veins remain dark green. As the condition worsens, the entire leaf turns yellowish-white, and the overall stalk elongation is significantly retarded. A local soil test reveals a highly alkaline soil pH of 8.4 with excessive calcium carbonate levels.

Based on the technical symptoms and soil parameters described, which specific micro-nutritional deficiency is most likely impacting the sugarcane crop?

(A) Zinc (Zn) deficiency induced by high phosphorus interaction

(B) Iron (Fe) deficiency, commonly manifesting as lime-induced chlorosis

(C) Boron (B) deficiency resulting in apical meristem necrosis

(D) Manganese (Mn) deficiency known as 'Pahala blight'

Q4. In the context of contemporary digital communication protocols, what is the primary structural difference between IPv4 and IPv6 addresses?

(A) IPv4 uses a 32-bit address space represented in hexadecimal notation, whereas IPv6 uses a 64-bit address space represented in binary format.

(B) IPv4 uses a 32-bit address space divided into four octets, whereas IPv6 uses a 128-bit address space divided into eight groups of four hexadecimal digits.

(C) IPv4 uses a 48-bit physical MAC mapping protocol, whereas IPv6 uses a 128-bit logical network layer notation.

(D) IPv4 relies entirely on classful dynamic routing tables, whereas IPv6 eliminates routing tables by embedding geographical coordinates.

Q5. The historic 'Lucknow Pact' of 1916 was highly significant in the Indian National Movement. Which of the following statements precisely captures its dual breakthrough?

(A) It marked the complete merger of the Revolutionary Nationalists with the Indian National Congress and the rejection of regional representation.

(B) It established a joint political front between the Moderates and Extremists within the Congress, alongside an electoral understanding with the All India Muslim League.

(C) It resulted in the immediate declaration of local self-government (Swaraj) across the United Provinces by the British Legislative Council.

(D) It dissolved the distinct communal electorates introduced by the Morley-Minto Reforms in favor of joint universal adult suffrage.

Q6. At the 2024 Paris Olympic Games, who became the first Indian athlete to win two Olympic medals in a single edition of the Games post-Independence?

(A) Neeraj Chopra

(B) Manu Bhaker

(C) Lakshya Sen

(D) PV Sindhu

Q7. The soil type locally referred to as 'Kabar' or 'Mar' in the Bundelkhand region of Uttar Pradesh possesses specific physical characteristics. Which description best matches this soil category?

(A) Highly porous, sandy and coarse soil with low water retention capacity, found along the active river channels.

(B) Dark-colored clayey soil that expands significantly when wet, becomes highly cohesive and sticky, and develops deep fissures upon drying.

(C) Light yellowish calcareous alluvial soil dominated by kankar nodules, found predominantly in the old floodplains.

(D) Highly acidic, lateritic gravelly soil rich in iron oxides, restricted entirely to the high altitude Vindhyan escarpments.

Q8. Which of the following best describes the economic concept of a 'Liquidity Trap', a phenomenon closely monitored by central monetary authorities during post-crisis recovery phases?

(A) A situation where the central bank injects excess liquidity into the banking system, causing hyperinflation and rapid currency depreciation.

(B) A state where nominal interest rates are exceptionally low and consumers prefer hoarding cash rather than investing in bonds, rendering conventional monetary policy ineffective.

(C) A regulatory threshold where commercial banks are legally barred from lending due to a sudden spike in non-performing assets (NPAs).

(D) A capital flight scenario where foreign institutional investors rapidly liquidate equities and withdraw hard currency from an emerging market.

Q9. In a relational database management system (RDBMS), which of the following integrity constraints ensures that a value in a specific column matches a valid value in the primary key column of another related table?

(A) Unique Key Constraint

(B) Check Constraint

(C) Referential Integrity / Foreign Key Constraint

(D) Domain Validity Constraint

Q10. Which classical dance form native to Uttar Pradesh features intricate footwork known as 'Tatkar', rapid pirouettes ('Chakkars'), and narrative expressions derived from the Bhakti movement traditions?

(A) Kathakali

(B) Bharatanatyam

(C) Kathak

(D) Sattriya

Q11. The 'National Green Hydrogen Mission', approved by the Government of India, targets the production of green hydrogen through which of the following pathways?

(A) Steam methane reforming of natural gas coupled with carbon capture and storage (CCS) technologies.

(B) Gasification of high-ash domestic coal reserves mixed with agricultural biomass residues.

(C) Electrolysis of water powered entirely by renewable energy sources like solar, wind, or hydro power.

(D) Controlled thermal cracking of heavy crude oil fractions inside specialized refinery reactors.

Q12. The geographic region known as the 'Terai' belt in Uttar Pradesh is structurally situated adjacent to which of the following physiographic zones, and how is it characterized?

(A) South of the Bhabar zone; characterized by a flat, marshy, damp terrain where underground streams reappear at the surface.

(B) North of the Bhabar zone; characterized by dry, rocky, porous sandstone formations with no surface water streams.

(C) West of the Yamuna lowlands; characterized by active sand dunes and arid scrub vegetation.

(D) East of the Purvanchal hills; characterized by high-altitude deep gorges and metamorphic rock structures.

Q13. Which of the following accurately describes the operational mechanism of 'Ransomware', a major category of malicious software encountered in cyber security incidents?

(A) It replicates silently across local area networks to exhaust system memory and bandwidth without modifying any user files.

(B) It intercepts and records every keystroke made by the user to extract clear-text passwords and administrative credentials.

(C) It encrypts the user's critical data files and demands a financial payment, typically via cryptocurrency, to provide the decryption key.

(D) It disguises itself as a legitimate utility tool while opening a hidden backdoor for unauthorized remote administration.

Q14. The 73rd Constitutional Amendment Act, 1992, introduced a three-tier Panchayati Raj system across India. Which administrative body operates specifically at the intermediate (block) level according to this framework?

(A) Gram Panchayat

(B) Zila Parishad

(C) Panchayat Samiti (Kshetra Panchayat)

(D) Nyaya Panchayat

Q15. Consider the following scientific information regarding aquatic ecosystems to answer the question below:

An inland freshwater lake situated near an intensive agricultural zone in Eastern Uttar Pradesh experiences a massive run-off of synthetic nitrogenous and phosphatic fertilizers over consecutive monsoon seasons. Within weeks, the lake surface becomes completely covered by an opaque, dense green mat of opportunistic microscopic organisms, causing a foul odor and a sudden, mass mortality of native fish species.

Which of the following biological sequences explains the true underlying cause of the widespread fish mortality observed in this ecosystem?

(A) As the massive algal bloom dies, aerobic decomposers (bacteria) break down the organic matter and consume the dissolved oxygen, leading to acute hypoxia.

(B) Excessive algal growth directly consumes all available dissolved oxygen during peak daytime photosynthesis, causing immediate asphyxiation of fish.

(C) The rapid multiplication of algae releases high concentrations of molecular nitrogen gas, which forms lethal gas embolisms inside the fish gills.

(D) The thick algal mat prevents atmospheric carbon dioxide from dissolving into the water, causing the lake's pH to drop to highly acidic levels.

Q16. Which major historical monument in Uttar Pradesh was constructed by Nawab Asaf-ud-Daula in 1784, featuring the architectural marvel known as the 'Bhool Bhulaiya' without any external structural pillars supporting its main vaulted hall?

(A) Chhota Imambara, Lucknow

(B) Bara Imambara, Lucknow

(C) Tomb of Akbar, Sikandra

(D) Anand Bhavan, Prayagraj

Q17. The prominent international sports tournament known as the 'Thomas Cup' is exclusively associated with which of the following sports disciplines?

(A) Field Hockey (Men's World Championship)

(B) Table Tennis (Mixed Doubles Championship)

(C) Badminton (Men's Team Championship)

(D) Lawn Tennis (Hard Court Grand Slam)

Q18. In the context of the Indian planning history and economic reforms, the 'LPG' policy paradigm (Liberalization, Privatization, and Globalization) was formally launched under the New Economic Policy (NEP) in which specific year?

(A) 1991

(B) 1985

(C) 1996

(D) 2000

Q19. The famous 'One District One Product' (ODOP) scheme of the Uttar Pradesh government aims to promote traditional indigenous industries. Which of the following pairs of District and its designated ODOP product is correctly matched?

(A) Aligarh – Brassware and Metal Craft

(B) Bhadohi – Hand-knotted Carpets (Dari)

(C) Kannauj – Wooden Toys and Handicrafts

(D) Gorakhpur – Moonj Products

Q20. Who was awarded the prestigious Jnanpith Award in 2024, recognizing outstanding lifetime contributions to Indian literature?

(A) Damodar Mauzo

(B) Gulzar (alongside Jagadguru Rambhadracharya)

(C) Amitav Ghosh

(D) Shankha Ghosh

Detailed Solutions

Q1.

Solution

Concept: The Shahi Canal system represents an architectural feat of historical water-resource engineering designed to supply irrigation across Rohilkhand. This region geographically encompasses the alluvial plains of northwestern Uttar Pradesh. To determine its modern administrative configuration, one must trace the river basin layout and historical regional boundaries.

Solution:

(a) The Rohilkhand region historically spans across the upper northwestern plains of Uttar Pradesh, named after the Rohilla Afghan tribes who settled there.

(b) The infrastructure of the ancient Shahi Canal system was strategically laid out to channel water directly from regional perennial rivers to support expansive paddy and sugarcane agriculture.

(c) In terms of modern administrative geography, the core territories of historical Rohilkhand—including districts such as Bareilly, Badaun, Shahjahanpur, and Pilibhit—are structurally organized under the Bareilly Division.

(d) Other options like Jhansi belong to the arid southern Bundelkhand zone, Mirzapur lies in the eastern Vindhyan belt, and Gorakhpur occupies the northeastern Purvanchal plains, making them hydrologically and historically separate from the Shahi Canal alignment.

(e) Therefore, the alignment of this canal system falls squarely within the jurisdiction of the modern Bareilly administrative division.

Final Answer: Bareilly Division.

Answer: (A)

Go Back to Question 1

Q2.

Solution

Concept: The Indian Constitution establishes a dual-polity system where the Governor acts as the constitutional head of the state. To maintain the equilibrium of federalism, certain provisions govern how provincial legislation interfaces with central oversight, particularly through executive assent mechanisms.

Solution:

(a) When a Bill is passed by the State Legislature, it must be presented to the Governor for assent, who can either grant assent, withhold it, return the bill for reconsideration, or reserve it for the President.

(b) Article 200 of the Constitution explicitly outlines these options and mandates the protocol for reserving specific state bills for Presidential scrutiny, especially if the bill endangers the constitutional position of the High Court.

(c) Article 163 deals with the Council of Ministers advising the Governor, Article 213 empowers the Governor to promulgate ordinances during legislative recess, and Article 167 dictates the duties of the Chief Minister regarding communication of information.

(d) The power of reservation serves as an essential federal check, ensuring state laws do not conflict with central mandates or national constitutional integrity.

(e) Thus, Article 200 is the specific legal provision that empowers the Governor to reserve a bill for the consideration of the President.

Final Answer: Article 200.

Answer: (B)

Go Back to Question 2

Q3.

Solution

Concept: Plant nutrient uptake is heavily dictated by soil chemistry, particularly pH levels and the chemical forms of mineral ions. Alkaline soils characterized by high levels of calcium carbonate severely impede the bio-availability of specific essential micronutrients, inducing distinct structural and physiological symptoms in crops.

Solution:

(a) The symptom described—interveinal chlorosis appearing prominently on younger leaves while veins remain green—is a classic physiological hallmark of iron insufficiency, as iron is an immobile nutrient within plant tissues.

(b) In highly alkaline soils (pH above 8.0) containing excessive calcium carbonate, iron precipitates as insoluble ferric hydroxides, creating a condition known as lime-induced chlorosis.

(c) Zinc deficiency typically causes severe stunting and leaf resetting, boron deficiency impacts apical meristems causing hollow hearts, and manganese deficiency presents as mottled lesions rather than distinct interveinal bleaching.

(d) Sugarcane crops grown in western Uttar Pradesh's calcareous belts frequently exhibit this condition due to the chemical immobilization of iron ions under high alkaline stresses.

(e) Consequently, the soil test and symptom matrix together confirm that the crop is suffering from lime-induced iron deficiency.

Final Answer: Iron (Fe) deficiency, commonly manifesting as lime-induced chlorosis.

Answer: (B)

Go Back to Question 3

Q4.

Solution

Concept: Network layer protocols facilitate the routing of data packets across global digital architectures. As the internet expanded exponentially, the fundamental constraints of the original addressing architecture necessitated a massive structural migration to handle the billions of interconnected computing nodes globally.

Solution:

(a) IPv4 addresses are constructed as 32-bit numeric values, which limits the maximum theoretical address space to approximately 4.3 billion unique configurations. They are written in a human-readable dotted-decimal format across four distinct octets.

(b) IPv6 was developed to overcome the exhaustion of IPv4 addresses by utilizing a massive 128-bit address architecture, enabling an almost infinite pool of unique IP destinations.

(c) Structurally, IPv6 addresses are formatted as eight groups of four hexadecimal digits separated by colons, which allows for efficient network prefix routing and embedded security configurations.

(d) Option A mistakenly reverses notations, option C confuses network layer logical IPs with data-link layer MAC addresses, and option D incorrectly states that IPv6 completely replaces logical routing tables with geographic coordinates.

(e) Therefore, the primary structural divergence rests entirely on the bit length and notation design of the respective octet systems.

Final Answer: IPv4 uses a 32-bit address space divided into four octets, whereas IPv6 uses a 128-bit address space divided into eight groups of four hexadecimal digits.

Answer: (B)

Go Back to Question 4

Q5.

Solution

Concept: The evolution of the Indian national struggle was marked by strategic political coalitions aimed at presenting a united front against British colonial rule. Analyzing the structural shifts within national organizations is critical to understanding the constitutional demands presented during the early twentieth century.

Solution:

(a) The 1916 Lucknow session of the Indian National Congress achieved a landmark reconciliation between the Moderate and Extremist factions, which had split apart during the Surat session of 1907.

(b) Concurrently, the Congress signed an agreement with the All India Muslim League, leading to the joint presentation of a common set of constitutional demands for self-government to the British administration.

(c) This dual convergence created unprecedented national solidarity, though it also marked the formal acceptance of separate electorates within the Congress political framework.

(d) Option A is false as revolutionary groups did not merge, option C incorrectly asserts immediate local self-governance was declared by the British, and option D is incorrect because separate electorates were accepted, not dissolved.

(e) Thus, the core breakthrough of the pact lay in unifying internal Congress factions while solidifying a temporary electoral alignment with the Muslim League.

Final Answer: It established a joint political front between the Moderates and Extremists within the Congress, alongside an electoral understanding with the All India Muslim League.

Answer: (B)

Go Back to Question 5

Q6.

Solution

Concept: Tracking contemporary athletic achievements requires examining specific milestones within international multi-sport events. Evaluating single-edition podium finishes provides insight into the historical trajectory of individual performances in modern Indian sports history.

Solution:

(a) At the 2024 Paris Olympic Games, Indian shooter Manu Bhaker delivered an extraordinary performance by securing two distinct bronze medals within the same Olympic schedule.

(b) She claimed her first bronze in the Women's 10m Air Pistol individual competition, and followed it with a second bronze in the 10m Air Pistol Mixed Team event alongside Sarabjot Singh.

(c) This achievement established her as the first Indian athlete in post-Independence history to win multiple medals in a single edition of the Olympic Games.

(d) Neeraj Chopra clinched a silver in Paris but won only one medal that year; PV Sindhu holds two Olympic medals but won them across separate editions (2016 and 2021).

(e) This historic feat underscores a pivotal development in India's performance metrics on the global stage.

Final Answer: Manu Bhaker.

Answer: (B)

Go Back to Question 6

Q7.

Solution

Concept: Regional soil taxonomy maps specific geographic zones based on parent rock material, weathering processes, and physical textures. The Bundelkhand plateau in Uttar Pradesh exhibits distinct soil distributions that dictate the region's moisture dynamics and agricultural capabilities.

Solution:

(a) In the local classification systems of Bundelkhand, soils are divided into upland types and lowland types. 'Kabar' and 'Mar' constitute the highly productive but difficult-to-manage black clayey soils of the plains.

(b) These black soils are characterized by a high percentage of clay particles, which gives them exceptional water retention capacities. They expand drastically and become sticky when wet, making plowing highly difficult.

(c) Upon losing moisture during dry cycles, they shrink significantly, leading to the development of deep, wide structural cracks that facilitate self-aeration.

(d) Option A describes sandy 'Bhur' soils, option C describes older alluvial 'Bangar' variants with kankar nodules, and option D characterizes lateritic red variants typical of the rocky outcrops.

(e) Thus, the physical behavior of expanding when wet and cracking when dry is the defining trait of Kabar and Mar soils.

Final Answer: Dark-colored clayey soil that expands significantly when wet, becomes highly cohesive and sticky, and develops deep fissures upon drying.

Answer: (B)

Go Back to Question 7

Q8.

Solution

Concept: Macroeconomic stability depends heavily on the transmission mechanisms of monetary policies. When specific economic conditions immobilize traditional central bank interventions, the relationship between interest rates, money supply, and public asset preferences changes fundamentally.

Solution:

(a) A liquidity trap occurs when nominal interest rates approach near-zero levels, causing the opportunity cost of holding cash to become practically negligible.

(b) At this stage, the public expects bond prices to fall and interest rates to rise in the future. As a result, any extra liquidity injected into the banking system by the central bank is hoarded as cash balances rather than invested or spent.

(c) This rendering of conventional open-market operations ineffective prevents the central bank from further lowering borrowing costs to stimulate aggregate domestic demand.

(d) Option A describes hyperinflationary dynamics, option C refers to credit crunches driven by regulatory balance sheet distress, and option D details external capital flights.

(e) Therefore, the core characteristic of a liquidity trap is the general public preference for hoarding cash over low-yield financial instruments at near-zero rates.

Final Answer: A state where nominal interest rates are exceptionally low and consumers prefer hoarding cash rather than investing in bonds, rendering conventional monetary policy ineffective.

Answer: (B)

Go Back to Question 8

Q9.

Solution

Concept: Database normalization and design depend on structural constraints to maintain data accuracy across interdependent tables. These integrity rules prevent anomalous entries and ensure that relations between different data entities remain consistent during transactional operations.

Solution:

(a) In an RDBMS, data consistency between two distinct tables is maintained through a parent-child relationship enforced by explicit structural keys.

(b) A foreign key is a column or a group of columns in a child table that points directly to a primary key or a unique key column in a parent table. This constraint requires that every value in the child table's foreign key must exist within the parent table's key column.

(c) This mechanism, known as referential integrity, prevents users from inserting orphaned rows into the child table or deleting required reference keys from the parent table.

(d) Unique constraints prevent duplication within a single table, check constraints enforce specific domain conditions, and domain validity restricts the data type and format.

(e) Thus, the foreign key constraint is the exact database component used to enforce referential integrity across separate data tables.

Final Answer: Referential Integrity / Foreign Key Constraint.

Answer: (C)

Go Back to Question 9

Q10.

Solution

Concept: The cultural heritage of northern India features distinct performing arts that evolved through historical intersections of courtly patronage and classical religious traditions. Analyzing specific structural patterns, rhythms, and thematic expressions helps differentiate these classical art forms.

Solution:

(a) Kathak is the premier classical dance form native to Uttar Pradesh, tracing its roots to ancient nomadic storytellers known as 'Kathakars' who performed in temples.

(b) The dance format emphasizes intricate footwork executed in perfect synchronization with rhythmic cycles, a technique technically termed 'Tatkar'. It also features rapid vertical pirouettes known as 'Chakkars'.

(c) During the Bhakti movement, Kathak heavily incorporated narrative themes revolving around the divine leelas of Radha and Krishna, which were later adapted into sophisticated court styles under the Awadh Nawabs.

(d) Kathakali belongs to Kerala, Bharatanatyam is native to Tamil Nadu, and Sattriya is an institutionalized monastic dance form originating from Assam.

(e) Therefore, the technical attributes of Tatkar and its geographic origins confirm Kathak as the classical dance form in question.

Final Answer: Kathak.

Answer: (C)

Go Back to Question 10

Q11.

Solution

Concept: Sustainable energy transition initiatives focus on decarbonizing core industrial sectors by promoting alternative fuel pathways. Evaluating the target production mechanisms helps determine how state-sponsored environmental missions classify the carbon footprints of various chemical processes.

Solution:

(a) The National Green Hydrogen Mission is a strategic initiative launched by the Government of India to foster clean energy infrastructure and reduce dependence on fossil fuel imports.

(b) Hydrogen gas is categorized by different colors based entirely on its manufacturing source and resulting lifecycle carbon emissions.

(c) Green hydrogen specifically refers to the gas generated via the process of water electrolysis, wherein an electric current splits water molecules into hydrogen and oxygen.

(d) To satisfy the definition of being entirely clean, this energy-intensive electrolysis process must be driven completely by renewable energy generation infrastructures such as utility-scale solar photovoltaic plants, wind farms, or hydroelectric installations.

(e) Other production variations using natural gas, coal gasification, or crude oil cracking are classified as grey, brown, or blue hydrogen due to their reliance on hydrocarbons and subsequent carbon dioxide generation.

Final Answer: Electrolysis of water powered entirely by renewable energy sources like solar, wind, or hydro power.

Answer: (C)

Go Back to Question 11

Q12.

Solution

Concept: The physiographic profile of northern India is divided into distinct parallel geomorphological zones stretching along the foothills of the Himalayas. Understanding the structural properties, water drainage patterns, and soil textures of these sub-Himalayan tracts is essential to tracking regional environmental geography.

Solution:

(a) The sub-Himalayan region consists of consecutive physical belts running parallel from north to south, beginning immediately below the Siwalik hills with the coarse Bhabar tract.

(b) The Bhabar zone is composed of heavy rock debris, gravels, and porous sediments where descending mountain streams completely sink beneath the surface due to high substrate porosity.

(c) Moving directly south of the Bhabar belt, the underground water streams resurface along a lower topographic gradient, creating a low-lying, flat landscape known as the Terai.

(d) This reappearance of groundwater results in highly saturated, damp, marshy, and waterlogged soil conditions characterized historically by dense forests, tall tall-grass savannahs, and high biodiversity.

(e) This differentiates the damp Terai zone from the dry Bhabar gravels to its north, the dry western sand dunes, and the rocky metamorphic hills of the Purvanchal range.

Final Answer: South of the Bhabar zone; characterized by a flat, marshy, damp terrain where underground streams reappear at the surface.

Answer: (A)

Go Back to Question 12

Q13.

Solution

Concept: Malicious software variants are engineered with distinct payloads designed to exploit computer networks and extort system administrators. Identifying the functional behavior and operational goals of these exploits helps categorize cyber security threats.

Solution:

(a) Cyber threats are classified based on their infiltration vectors and the subsequent damage mechanisms they execute upon compromising a host machine or database.

(b) Ransomware is an advanced category of malware that relies on asymmetrical cryptographic algorithms to lock up critical systemic files, rendering the entire operating infrastructure unusable.

(c) Once the target digital assets are rendered inaccessible, the malicious code displays a localized text notification demanding an untraceable financial payment in exchange for the decryption utility.

(d) These extortion demands typically mandate payment via decentralized cryptocurrencies to conceal the attackers' identities from digital forensic investigators and global financial regulators.

(e) This behavior distinguishes ransomware from spyware variants like keyloggers that harvest keystroke data, standard worms that exhaust network bandwidth, and trojans designed to deploy stealthy administrative backdoors.

Final Answer: It encrypts the user's critical data files and demands a financial payment, typically via cryptocurrency, to provide the decryption key.

Answer: (C)

Go Back to Question 13

Q14.

Solution

Concept: The constitutional formalization of local self-governance in India established a rigid administrative hierarchy across rural areas. Tracing these statutory tiers reveals the exact division of regional planning powers between village units and district administrations.

Solution:

(a) The 73rd Constitutional Amendment Act of 1992 inserted Part IX into the Constitution, establishing a mandatory three-tier structure for local Panchayati Raj institutions.

(b) Under this standardized framework, the lowest tier operating directly at the village level is designated as the Gram Panchayat, which handles local executive duties.

(c) The highest tier in the rural administrative hierarchy is the Zila Parishad, which operates at the district level to oversee macro planning and coordinate funding.

(d) The intermediate tier, functioning specifically at the developmental block level, is known as the Panchayat Samiti or Kshetra Panchayat, serving as a vital channel between villages and the district.

(e) Nyaya Panchayats represent decentralized judicial organs meant for dispute resolution rather than serving as intermediate administrative tiers within the structural development planning hierarchy.

Final Answer: Panchayat Samiti (Kshetra Panchayat).

Answer: (C)

Go Back to Question 14

Q15.

Solution

Concept: The biochemical balance of freshwater systems is highly sensitive to external chemical shifts induced by agricultural runoff. Tracking nutrient enrichment cascades helps clarify the exact physiological stages that cause ecological collapse in aquatic environments.

Solution:

(a) Intensive agricultural activities often lead to the washing of synthetic nitrogen and phosphorus fertilizers into adjacent freshwater bodies during monsoon cycles.

(b) This high concentration of limiting nutrients accelerates the rapid growth of photosynthetic microorganisms, a phenomenon known as cultural eutrophication.

(c) While the resulting thick green algal mat blocks sunlight and alters oxygen dynamics, the primary cause of widespread fish mortality occurs during the decomposition phase.

(d) When the short-lived algal bloom dies, large populations of aerobic decomposers like bacteria multiply rapidly to break down the massive accumulation of organic matter.

(e) These respiration-heavy microorganisms consume the dissolved oxygen faster than it can be replenished, causing acute hypoxia that suffocates fish and other aquatic animals.

Final Answer: As the massive algal bloom dies, aerobic decomposers (bacteria) break down the organic matter and consume the dissolved oxygen, leading to acute hypoxia.

Answer: (A)

Go Back to Question 15

Q16.

Solution

Concept: The architectural landscape of Awadh exhibits unique engineering designs funded by regional rulers during the late eighteenth century. Analyzing structural innovations helps identify key historical monuments that lack traditional load-bearing components.

Solution:

(a) During the devastating famine of 1784, Nawab Asaf-ud-Daula initiated a major public works project in Lucknow to provide employment and relief to the local population.

(b) This project resulted in the construction of the Bara Imambara, a monumental structure designed by the architect Kifayatullah that showcases distinct Indo-Islamic styling.

(c) The central hall of this building features a massive vaulted gallery spanning over fifteen meters in height and nearly fifty meters in length without a single supporting pillar.

(d) To balance the tremendous lateral thrust of this heavy brick roof, the upper floors were built with a complex network of interlocking labyrinthine corridors known as the Bhool Bhulaiya.

(e) This engineering design distinguishes the Bara Imambara from the smaller Chhota Imambara, Akbar's tomb in Sikandra, and the modern structures of Anand Bhavan.

Final Answer: Bara Imambara, Lucknow.

Answer: (B)

Go Back to Question 16

Q17.

Solution

Concept: Global sports governing bodies organize distinct international team championships restricted to specific athletics formats. Verifying the historical origins of historical trophies allows for the correct identification of specialized sports categories.

Solution:

(a) The Thomas Cup is a prestigious international tournament established following proposals made by legendary sports administrator Sir George Alan Thomas in the late 1930s.

(b) The competition functions as the premier world men's team championship, organized regularly under the global management of the Badminton World Federation.

(c) It operates alongside the Uber Cup, which serves as the equivalent international world team championship for elite women athletes within the same sport.

(d) This tournament structure requires teams from various countries to compete in a format combining multiple singles and doubles matches to secure the title.

(e) The championship is separate from the men's field hockey world cups, professional table tennis team circuits, and the major grand slam events of lawn tennis.

Final Answer: Badminton (Men's Team Championship).

Answer: (C)

Go Back to Question 17

Q18.

Solution

Concept: The evolution of India's economic planning models has been shaped by shifts in fiscal policy prompted by balance of payments crises. Pinpointing the transition to market-oriented systems requires identifying the exact year these systemic changes were introduced.

Solution:

(a) During the early 1990s, India faced a severe macroeconomic crisis marked by high inflation, a widening fiscal deficit, and critically low foreign exchange reserves.

(b) To prevent an impending default on external debts, the union government launched structural adjustments designed to integrate the domestic economy with global markets.

(c) This policy shift, formally introduced in July 1991 under the New Economic Policy, replaced the previous inward-looking regulatory framework with a market-driven approach.

(d) The new approach focused on three core pillars: Liberalization to remove industrial licenses, Privatization to reduce state monopolies, and Globalization to lower trade barriers.

(e) This transition marked a definitive departure from the inward-looking command models of the 1980s and laid the groundwork for modern industrial expansion.

Final Answer: 1991.

Answer: (A)

Go Back to Question 18

Q19.

Solution

Concept: State industrial policies use specialized curation schemes to safeguard, standardize, and scale regional cottage industries. Reviewing the designated product listings for individual districts helps identify the correct pairings defined by economic development boards.

Solution:

(a) The One District One Product initiative was launched by the Uttar Pradesh government to revive indigenous arts, boost rural employment, and expand regional export opportunities.

(b) Under this developmental framework, each individual district is matched with a specific traditional craft based on historical expertise and local raw material availability.

(c) Bhadohi district is recognized for its ancient weaving traditions, and its hand-knotted carpets have earned a Geographical Indication tag under the scheme.

(d) Aligarh is matched with locks and hardware rather than brassware, Kannauj is famous for its perfume distillation industries, and Gorakhpur is paired with terracotta clay crafts.

(e) Thus, evaluating the official policy matching index confirms that the Bhadohi and carpet production pairing is correct.

Final Answer: Bhadohi – Hand-knotted Carpets (Dari).

Answer: (B)

Go Back to Question 19

Q20.

Solution

Concept: The evaluation of literary awards in India requires identifying the recipients of high-level state honors given for outstanding lifetime creative output. Tracking annual award presentations clarifies the contributions recognized by the selection boards.

Solution:

(a) The Jnanpith Award stands as the highest and oldest literary honor presented annually by the Bharatiya Jnanpith organization to authors writing in scheduled Indian languages.

(b) For the 58th edition of the award announced in 2024, the selection committee chose to jointly honor two prominent literary figures from different language traditions.

(c) The award was conferred upon the celebrated Urdu poet and lyricist Gulzar, alongside the Sanskrit scholar and spiritual leader Jagadguru Rambhadracharya.

(d) Damodar Mauzo received the award in a previous cycle, while writers like Amitav Ghosh and Shankha Ghosh represent past honorees from earlier years.

(e) This joint recognition highlights the committee's objective of celebrating multi-lingual excellence across both classical Sanskrit scholarship and contemporary Urdu poetry.

Final Answer: Gulzar (alongside Jagadguru Rambhadracharya).

Answer: (B)

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Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	A	2	B	3	B	4	B	5	B
6	B	7	B	8	B	9	C	10	C
11	C	12	A	13	C	14	C	15	A
16	B	17	C	18	A	19	B	20	B