TANCET MBA

Sample Paper – 4

Duration: 120 Minutes **Maximum Marks: 100**

Instructions

- This paper contains **100** Multiple Choice Questions (Single Correct Answer) modelled on the **TANCET MBA** entrance examination.
- Five parts: **Part A** – Analysis of Business Situations (Q 1–20), **Part B** – Reading Comprehension (Q 21–40), **Part C** – Quantitative Aptitude (Q 41–60), **Part D** – Data Sufficiency (Q 61–80), **Part E** – General English (Q 81–100).
- Each correct answer carries $+1$ **mark**. Each wrong answer carries a penalty of $-\frac{1}{4}$ **mark**. Unattempted questions carry no penalty.
- Only **one** option is correct. Darken the correct bubble completely on the OMR answer sheet.
- No section-wise time limit; manage 120 minutes across all five parts at your discretion.
- Mobile phones, calculators, log tables, and all electronic devices are **strictly prohibited**.

Part A: Analysis of Business Situations (Q 1–20)

Questions 1–5 are based on the following caselet. **Caselet 1 (AutoFuture Motors):** AutoFuture Motors, India's third-largest passenger vehicle manufacturer, must decide between two strategic paths: (a) invest Rs. 4,500 crore in full EV platform development by 2027, or (b) develop a hybrid/mild-hybrid range at Rs. 1,200 crore while retaining existing ICE production lines. The government has announced a 15% GST reduction on EVs and a Rs. 10,000 FAME-III subsidy per vehicle. EV adoption in India stands at 3% of total vehicle sales. A Chinese EV manufacturer has announced plans to enter India by 2026.

Q1. What is the **most significant external factor** driving AutoFuture's strategic decision?

(A) AutoFuture's existing ICE production line capacity and sunk investment

(B) The Rs. 1,200 crore cost differential between the two strategic options

(C) AutoFuture's internal R&D capability in battery management systems

(D) The announced entry of a Chinese EV competitor into the Indian market by 2026, combined with government policy favouring EVs

Q2. Which strategic risk is **unique to the full EV option** as opposed to the hybrid route?

(A) Stranded asset risk on ICE production infrastructure if EV adoption accelerates faster than forecasted

(B) Regulatory risk of GST hike on EVs in a future policy cycle

(C) Reputational risk of being perceived as a late mover in sustainability

(D) Supply chain disruption due to rising prices of lithium and cobalt

Q3. Which assumption is **implicit in choosing the hybrid route** rather than the full EV option?

(A) The Chinese EV entrant will fail to gain regulatory approval by 2026

(B) EV adoption in India will remain modest in the medium term, giving ICE/hybrid vehicles a commercially viable runway beyond 2027

(C) The government will withdraw FAME-III subsidies within the next two years

(D) AutoFuture's competitors are also unlikely to launch EVs before 2028

Q4. What is the **best course of action** for AutoFuture given the competitive threat from the Chinese EV entrant?

(A) Launch an aggressive ICE model upgrade to defend current market share before 2026

(B) Postpone all investment decisions until the Chinese competitor enters and its market impact can be assessed

(C) Pursue a phased strategy: accelerate the hybrid range launch now to capture near-term demand while ring-fencing a dedicated EV investment fund from cash flows

(D) Lobby the government to impose import duties on Chinese EVs as the primary competitive response

Q5. Which factor does **NOT** directly support the full EV investment of Rs. 4,500 crore?

(A) Government-announced 15% GST reduction on EVs improving demand economics

(B) Rs. 10,000 FAME-III per-vehicle subsidy enhancing buyer affordability

(C) Competitive threat from a Chinese EV manufacturer entering by 2026

(D) Current EV adoption in India standing at only 3% of total vehicle sales

Questions 6–10 are based on the following caselet. **Caselet 2 (EduLeap EdTech):** EduLeap, a 4-year-old ed-tech startup with 2 million paid subscribers, is facing a new government regulation requiring all online coaching platforms to cap tuition fees, limit daily screen time, and undergo annual content audits. Compliance costs are estimated at Rs. 40 crore annually. The company's EBITDA was Rs. 25 crore last year. Simultaneously, a strategic investor has offered Rs. 200 crore at a 20% stake

— partly contingent on EduLeap demonstrating clear compliance within 6 months.

Q6. What is the **primary financial impact** of the regulation on EduLeap?

(A) The regulation converts EduLeap from an EBITDA-positive company into an EBITDA-negative one, since compliance costs of Rs. 40 crore exceed last year's EBITDA of Rs. 25 crore

(B) The regulation eliminates EduLeap's subscriber base by forcing all users to reduce screen time

(C) The investor's offer will automatically lapse if EduLeap fails to comply within 6 months

(D) Fee capping will reduce revenue from premium subscribers but leave EBITDA broadly unchanged

Q7. What makes the investor's offer of Rs. 200 crore at 20% stake **strategically significant** in this context?

(A) The valuation of Rs. 1,000 crore implied by the offer is above the sector average, rewarding early movers

(B) The Rs. 200 crore infusion can fund compliance costs and future growth simultaneously, but only if EduLeap demonstrates regulatory conformance within 6 months

(C) The investor's 20% stake will give them board control, enabling faster compliance decisions

(D) The offer validates EduLeap's content quality and subscriber loyalty, insulating it from regulatory risk

Q8. Which of the following would **NOT** help EduLeap achieve compliance within 6 months?

(A) Appointing a dedicated Chief Compliance Officer to lead the regulatory response

(B) Investing in technology to automate screen-time tracking and enforce fee caps on the platform

(C) Launching a new international market expansion to grow revenue outside the regulated domestic segment

(D) Engaging a third-party content auditor to begin the annual audit process immediately

Q9. What inference can be drawn about the **government's intent** behind the regulation?

(A) The government intends to nationalise the ed-tech sector within the next 3 years

(B) The regulation is designed to reduce ed-tech company valuations and deter foreign investment

(C) The government seeks to eliminate all private online education platforms in favour of public alternatives

(D) The government aims to protect students from excessive screen time, financial exploitation, and unverified content while still permitting the ed-tech industry to operate

Q10. What is the **most rational short-term strategy** for EduLeap?

(A) Prioritise achieving full compliance within 6 months to secure the Rs. 200 crore investment, which will more than cover compliance costs and fund long-term growth

(B) Reject the investor's offer and seek a merger with a non-regulated offline coaching brand instead

(C) Challenge the regulation in court and seek a stay order to delay compliance obligations

(D) Reduce subscriber count voluntarily to lower the compliance burden and improve EBITDA

Questions 11–15 are based on the following caselet. **Caselet 3 (BluePort**

Logistics): BluePort, the operator of South India's second-largest container terminal, is evaluating a privatisation offer from a global port operator (GPO) seeking a 74% stake at Rs. 2,800 crore. BluePort's current debt is Rs. 950 crore, and annual EBITDA is Rs. 420 crore. GPO brings technology (automated stacking cranes, AI-based berth scheduling) that could increase throughput by 40%. Port workers' unions oppose privatisation fearing job cuts. The state government is supportive but requires a 10-year employee protection clause.

Q11. What is the **most compelling reason** for BluePort's board to accept the GPO deal?

(A) The deal price of Rs. 2,800 crore precisely equals BluePort's current book value

(B) The Rs. 2,800 crore deal proceeds can substantially retire the Rs. 950 crore debt while GPO's technology-driven 40% throughput increase improves long-term profitability

(C) The 74% stake sold to GPO means BluePort retains operational control over day-to-day terminal management

(D) Port workers' unions will ultimately support the deal once technology benefits become evident

Q12. The employee protection clause requirement by the state government most directly reflects. . .

(A) The government's belief that GPO's automation technology is operationally inferior to existing methods

(B) A desire to delay the privatisation deal by adding conditions that GPO will find unacceptable

(C) A balancing act between enabling economic modernisation through privatisation while protecting the social contract with the existing workforce

(D) Regulatory concern about GPO gaining monopoly control over South India's container shipping

Q13. Which stakeholder group poses the **greatest implementation risk** to the privatisation deal?

(A) The state government, which has placed conditions on the deal

(B) BluePort's existing bondholders, who may object to the debt repayment timeline

(C) GPO's overseas shareholders, who may be averse to India's regulatory environment

(D) Port workers' unions, whose organised opposition could disrupt terminal operations and delay technology deployment during and after the transaction

Q14. What would be the **primary financial impact** on BluePort if the deal at Rs. 2,800 crore goes through?

(A) Significant deleveraging: the Rs. 2,800 crore inflow allows full repayment of the Rs. 950 crore debt and leaves surplus capital, reducing BluePort's net interest burden and improving its credit profile

(B) BluePort's EBITDA will immediately double due to the infusion of GPO's technology post-deal signing

(C) BluePort's minority shareholders will receive a mandatory open offer at a premium from GPO

(D) The deal will convert BluePort's annual EBITDA from Rs. 420 crore to a guaranteed Rs. 600 crore under GPO management

Q15. Which factor makes the GPO's technology offer **particularly valuable** for BluePort?

(A) GPO's brand name will attract new international shipping lines to BluePort regardless of terminal efficiency

(B) Automated stacking cranes and AI-based berth scheduling directly address throughput constraints, and a 40% capacity increase can be achieved without proportionate increase in land or labour

(C) The technology will allow BluePort to reduce the 10-year employee protection period to 5 years through early automation

(D) GPO's technology is already installed at North Indian ports, making adoption at BluePort's South Indian terminal straightforward

Q16. A finance manager discovers that the company has been over-reporting revenues for 2 quarters to meet investor guidance. What is the **best course of action**?

(A) Adjust accounts quietly in the next quarter to correct the discrepancy without disclosure

(B) Inform the CFO verbally but not the statutory auditors, to keep the matter internal

(C) Escalate immediately to the audit committee and legal counsel, and ensure the statutory auditors are notified to enable proper restatement and regulatory disclosure

(D) Wait until the annual statutory audit, at which point auditors will detect and correct the error

Q17. An HR director must lay off 50 employees due to a business downturn. The CEO wants the process completed within one week. What is the **best approach**?

(A) Execute the layoffs immediately as instructed to minimise disruption to ongoing business

(B) Delay the entire process to allow employees more time to find alternative employment

(C) Select employees randomly to ensure the process is free from managerial bias

(D) Conduct a fair, performance-criteria-based selection process, comply fully with applicable labour law requirements, and provide adequate severance pay and outplacement support, even if this requires negotiating an extended timeline with the CEO

Q18. A procurement officer receives a gift worth Rs. 15,000 from a vendor during the evaluation of the vendor's proposal. What is the **best action**?

(A) Return the gift immediately, disclose the receipt to the company's ethics officer, and recuse from the vendor evaluation to avoid any conflict of interest

(B) Accept the gift but declare it formally in the company's gift register and continue the evaluation

(C) Consult a peer colleague and jointly decide whether the gift constitutes a conflict of interest

(D) Accept the gift but consciously ensure that the vendor is not favoured in the evaluation

Q19. A product manager realises that the company's new feature was built on flawed user research data. The feature is already marketed but not yet launched. What is the **best course of action**?

(A) Launch the feature as scheduled — the marketing investment is already sunk and cannot be recovered

(B) Delay the launch, conduct fresh and rigorous user research, and revise the feature design before releasing it to customers

(C) Launch the feature with a disclaimer noting that user experience may vary from advertised expectations

(D) Abandon the feature entirely and write off the development and marketing costs

Q20. A branch manager notices that a bank employee appears to have accepted cash bribes from loan applicants. What is the **best first action**?

(A) Confront the employee directly and privately to obtain an admission before taking any formal step

(B) Issue the employee an informal warning and monitor behaviour more closely before escalating

(C) File a detailed internal suspicious activity report with the bank's vigilance officer and follow the institution's prescribed fraud reporting protocol

(D) Bypass internal channels and report the matter directly to the Reserve Bank of India without an internal report

Part B: Reading Comprehension (Q 21–40)

Passage 1: The Green Energy Transition and Economic Disruption

The global shift from fossil fuels to renewable energy represents one of the most significant economic transformations of the twenty-first century. Solar photovoltaic and onshore wind power have now become the cheapest sources of new electricity generation in most major economies, with the levelised cost of solar electricity having fallen by over 89% in the past decade alone. This remarkable cost deflation has accelerated deployment but simultaneously introduced structural disruptions that governments and corporations are only beginning to grapple with.

Chief among these disruptions is the risk of stranded assets. Countries like India, which have built approximately 200 GW of coal-fired generation capacity, face the challenge of managing power infrastructure whose economic life may be cut short by the superior economics of renewables. While India has committed to an ambitious target of 500 GW of renewable capacity by 2030, the phasedown of coal must be managed carefully to avoid electricity supply gaps, especially in states whose industrial and residential demand continues to grow rapidly.

The concept of a "just transition" has therefore emerged as a critical policy imperative. A just transition acknowledges that coal miners, plant operators, and communities economically dependent on fossil fuel industries cannot simply be left behind as the energy system pivots. It demands active investment in retraining programmes, alternative livelihood creation, and regional economic diversification. Without such measures, the speed of the energy transition risks exacerbating existing social inequalities rather than alleviating them.

The transition also carries important geopolitical implications. The batteries required for grid-scale energy storage and electric vehicles depend on rare earth minerals including cobalt, lithium, and manganese — resources concentrated in a handful of countries. The Democratic Republic of Congo holds over 70% of global cobalt reserves, while lithium deposits are concentrated in a South American "Lithium Triangle." Nations that successfully secured oil supply chains in the twentieth century now face the parallel challenge of securing critical mineral supply chains in the twenty-first.

Developing nations, including India, have articulated an equity argument in international climate negotiations. They contend that the historical carbon emissions driving climate change were overwhelmingly produced by industrialised economies, and that developing nations should not be denied the same fossil-fuel-based development pathway that created Western prosperity. This argument has been partially accommodated in the principle of "common but differentiated responsibilities" in global climate agreements. However, critics note that the falling cost of renewables increasingly weakens the economic rationale for developing nations to choose fossil fuels, regardless of the equity argument.

India's 500 GW renewable target by 2030 is ambitious but faces practical bottlenecks: land acquisition for solar and wind farms, grid integration challenges, financing gaps for state electricity distribution companies, and the need to rapidly build transmission infrastructure to carry power from renewable-rich western and southern states to demand centres in the north and east. The target signals intent; whether policy execution will match it remains a live question.

Q21. What is the **central argument** of the passage?

(A) The green energy transition, while economically inevitable given falling renewable costs, creates parallel disruptions including stranded assets, workforce displacement, and new geopolitical dependencies on rare earth minerals

(B) Renewable energy is now cheaper than coal and will replace all fossil fuel use within the next decade

(C) India's 500 GW renewable target is unrealistic given current grid infrastructure and land acquisition constraints

(D) Developed nations have a moral obligation to fund the energy transition in developing countries under the principle of common but differentiated responsibilities

Q22. The "just transition" concept is discussed primarily to address. . .

(A) The risk of renewable energy project delays due to regulatory bottlenecks

(B) The social and economic vulnerability of communities and workers whose livelihoods depend on fossil fuel industries that are being phased down

(C) The need to attract foreign direct investment into clean energy infrastructure

(D) The technical challenge of integrating intermittent renewable power into existing electricity grids

Q23. According to the passage, the rare earth mineral issue is significant because. . .

(A) Rare earth mineral prices have risen sharply, making EVs unaffordable in emerging markets

(B) The DRC and South America have placed export restrictions on cobalt and lithium, threatening EV battery supply

(C) The clean energy transition replaces geopolitical dependence on oil-producing nations with a new form of dependence on the small number of countries holding critical mineral reserves

(D) India has no access to lithium or cobalt deposits and will therefore be unable to manufacture EV batteries domestically

Q24. Which statement **best reflects** the developing nations' position on climate commitments as described in the passage?

(A) Developing nations are unwilling to invest in renewable energy under any circumstances

(B) Developing nations argue that the cost of EV battery minerals is prohibitive for their economies

(C) Developing nations demand that developed countries share renewable technology patents freely before committing to emission reductions

(D) Developing nations contend that they should not be denied fossil-fuel-based development pathways when historical emissions responsibility lies overwhelmingly with industrialised economies

Q25. What does the author **imply** about India's 500 GW renewable target?

(A) The target is ambitious and signals political intent, but practical bottlenecks in land, grid, financing, and transmission mean its achievement is uncertain

(B) The target is easily achievable given India's abundant solar and wind resources

(C) The target will be met ahead of schedule because of the falling cost of solar power

(D) The target is primarily a diplomatic signal for international climate negotiations and is not intended to guide domestic energy policy

Passage 2: Food Security and Agricultural Policy

The Food and Agriculture Organisation estimated that 828 million people remained chronically undernourished globally in 2023 — a number that increased in the aftermath of the COVID-19 pandemic and has been further worsened by climate-induced disruptions to agricultural production. Climate change is reducing crop yields across major food-producing regions through increased frequency of extreme weather events, shifting monsoon patterns, and rising temperatures that affect photosynthesis rates. The World Bank estimates that without adaptation, climate change could reduce crop yields by up to 25% in South Asian agricultural zones by 2050.

India presents a striking paradox in this global narrative. The country regularly records bumper foodgrain harvests — production crossed 330 million tonnes in 2023 — and holds strategic food reserves far exceeding buffer stock norms. Yet the National Family Health Survey consistently documents that India carries one of the world's highest burdens of child stunting and undernutrition. This paradox reflects not a problem of food production but a problem of food access: the inability of low-income households to purchase adequate nutrition, compounded by poor food distribution infrastructure and high post-harvest losses estimated at 15–20% of total production.

The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) plays an underappreciated role in food security by generating income for rural households during agricultural lean seasons, thereby enabling them to purchase food even when their own agricultural production is insufficient. Research has consistently shown that MGNREGS wages serve as a nutritional floor for the most vulnerable rural populations. However, the scheme's effectiveness is undermined in states with poor implementation, delayed wage payments, and insufficient work allocation.

A persistent policy debate concerns the trade-off between maximising foodgrain exports — which generate foreign exchange and support farmer incomes — and prioritising domestic food security through stable, affordable domestic food prices. India's decision to ban wheat and rice exports during periods of domestic supply stress has drawn criticism from global trade partners but has been defended by policymakers as a necessary safeguard for domestic food affordability. This tension between export maximisation and food sovereignty is likely to intensify as climate variability increases production uncertainty.

Precision agriculture — encompassing GPS-guided equipment, satellite crop monitoring, soil sensors, and AI-based advisory systems — holds significant promise for improving yields and reducing input wastage. However, its adoption among India's 86 million smallholder farmers (those operating less than 2 hectares) is severely constrained by high upfront capital costs, limited digital literacy, unreliable rural internet connectivity, and a fragmented land holding structure that makes per-farm technology investment uneconomical. Without deliberate policy intervention to make precision agriculture accessible at scale — through FPO-level aggregation, subsidised technology access, and digital extension services — its benefits will remain concentrated among large commercial farms.

Q26. What **paradox** does the passage highlight about India?

(A) India exports large quantities of foodgrain while simultaneously importing wheat and rice to meet domestic demand

(B) India records record foodgrain production and holds large reserves, yet carries one of the world's highest burdens of child stunting and undernutrition — pointing to a failure of food access rather than food production

(C) India's precision agriculture adoption is the highest in Asia despite having the world's largest number of smallholder farmers

(D) India has reduced chronic undernutrition to below the global average despite still developing its food distribution infrastructure

Q27. Why does the author mention MGNREGS in the context of food security?

(A) To argue that MGNREGS should be replaced by a direct food distribution programme

(B) To demonstrate that rural employment schemes are the single most effective tool for reducing agricultural imports

(C) To show that MGNREGS income transfers serve as a nutritional floor for vulnerable rural households during lean agricultural seasons, thereby directly supporting food access

(D) To critique the government for failing to link MGNREGS wage rates to the cost of an adequate nutritional basket

Q28. The passage's discussion of the food export versus domestic security debate suggests that the author believes...

(A) India should permanently ban all agricultural exports to guarantee domestic food security

(B) Export maximisation and domestic food security are complementary objectives that can always be achieved simultaneously

(C) India's export ban decisions have been economically damaging and should be reversed by deregulating agricultural trade

(D) The tension between food export maximisation and domestic food sovereignty is a genuine and unresolved policy dilemma that will intensify with increasing climate variability

Q29. What does the passage say about precision agriculture and smallholder farmers?

(A) Precision agriculture holds significant promise for improving yields but its adoption among India's 86 million smallholder farmers is severely constrained by capital costs, digital literacy gaps, connectivity limitations, and fragmented landholding — requiring deliberate policy intervention to be accessible at scale

(B) Precision agriculture is already widely adopted among Indian smallholder farmers through government digital extension programmes

(C) Precision agriculture is only relevant for large commercial farms and has no meaningful application for holdings below 2 hectares

(D) The government has successfully deployed FPO-level aggregation models that have made precision agriculture affordable for most smallholder farmers

Q30. The author's tone toward **global food security governance** is best described as...

(A) Optimistic: the author believes that existing global institutions are well-equipped to eliminate hunger by 2030

(B) Critically concerned: the author acknowledges the scale and complexity of food insecurity, highlights systemic failures in both production and distribution systems, and implies that current governance responses are inadequate relative to the challenge

(C) Indifferent: the author presents food security statistics as background context without passing any normative judgment

(D) Polemical: the author blames rich nations' agricultural subsidies exclusively for global food insecurity

Passage 3: Inclusive Growth and the Challenge of Inequality

The COVID-19 pandemic accelerated a pre-existing trend of rising wealth concentration. The Oxfam Inequality Report documented that the ten wealthiest individuals in the world doubled their fortunes during the pandemic years, while over 160 million people were pushed into poverty. In India, the top 1% of households now holds approximately 40% of national wealth — a Gini coefficient trajectory that raises fundamental questions about the relationship between economic growth and equity.

The Kuznets curve hypothesis, formulated by economist Simon Kuznets in the 1950s, proposed that as economies develop, inequality initially rises as the workforce shifts from low-productivity agriculture to higher-wage industry, before eventually declining as the benefits of growth diffuse through higher wages, education, and social mobility. This inverted-U shaped relationship between per-capita income and inequality was once widely accepted as an empirical regularity. However, contemporary data from India, the United States, China, and several other major economies shows that inequality can continue rising even at high levels of per-capita income, undermining the Kuznets hypothesis as a reliable prediction of eventual convergence.

Universal Basic Income (UBI) has attracted growing interest as a direct policy mechanism for reducing inequality. Finland's 2017–2018 UBI experiment, which provided €560 per month to 2,000 randomly selected unemployed individuals, found that recipients experienced significantly improved mental wellbeing, greater trust in social institutions, and no reduction in employment-seeking behaviour — contradicting fears that unconditional income transfers would create welfare dependency. The GiveDirectly programme in Kenya, which has provided long-term unconditional cash transfers to thousands of rural households, has similarly documented improvements in consumption, assets, and psychological wellbeing with no significant labour supply reduction.

Yet the evidence from targeted social sector spending suggests that public investment in health and education may be a more structurally effective lever for reducing inequality than direct income transfers. Countries that have invested consistently in universal primary and secondary education, affordable tertiary education, and universal healthcare have achieved significantly lower Gini coefficients over time. These investments build human capital, which translates into higher earning capacity across the income distribution — particularly benefiting those at the bottom. Direct income transfers, by contrast, may improve immediate consumption but do not inherently change the structural drivers of inequality: unequal access to quality education, healthcare, and productive assets.

Trickle-down economics — the theory that tax cuts and incentives for high-income earners and corporations will eventually benefit lower-income groups through investment, job creation, and wage growth — has been subjected to sustained empirical critique. Decades of evidence from countries that pursued aggressive trickle-down policies show that while corporate profitability and top-income shares rose, wage growth for lower-income workers remained stagnant, and inequality increased. The theoretical transmission mechanism from elite wealth creation to broad-based prosperity has not been reliably observed at the macroeconomic level.

Q31. What is the **main tension** the passage explores?

(A) The tension between fiscal prudence and the need for large-scale public investment in infrastructure

(B) The tension between economic nationalism and globalised trade in the context of post-pandemic recovery

(C) The tension between the optimistic expectation that economic growth will naturally reduce inequality over time (Kuznets) and the empirical evidence that inequality can persist and worsen even in growing economies — demanding active policy intervention

(D) The tension between UBI proponents who advocate direct transfers and education advocates who believe in human capital investment

Q32. The author cites the Finland UBI experiment primarily to...

(A) Argue that Finland's model should be adopted universally as the most proven anti-poverty tool

(B) Demonstrate that UBI is more cost-effective than spending on education and healthcare

(C) Show that European welfare states have solved the inequality problem through direct transfers

(D) Provide empirical evidence that unconditional income transfers can improve wellbeing without creating welfare dependency, countering a common objection to UBI programmes

Q33. According to the passage, what is the **most effective policy tool** for reducing inequality in a structural and durable sense?

(A) Sustained public investment in universal health and education, which builds human capital across the income distribution and reduces the structural drivers of inequality over time

(B) Universal Basic Income delivered as unconditional cash transfers to all citizens

(C) Progressive corporate taxation to fund direct redistribution to low-income households

(D) Trickle-down incentives that stimulate business investment and thereby create employment

Q34. The Kuznets curve debate is relevant to the passage primarily because it raises the question of...

(A) Whether India's per-capita income level has already passed the turning point where inequality should begin to decline

(B) Whether policymakers can rely on economic growth alone to reduce inequality over time, or whether deliberate redistributive policy is required

(C) Whether the inequality data for India, the US, and China has been accurately measured using consistent Gini coefficient methodologies

(D) Whether the shift from agriculture to industry in developing countries necessarily raises wage inequality in the short run

Q35. Which statement would the passage's author **most likely disagree with**?

(A) Rising wealth concentration in India raises serious concerns about equitable distribution of the gains from economic growth

(B) Social sector investment in health and education is likely to reduce inequality more durably than unconditional cash transfers alone

(C) The Finland UBI experiment produced some positive social outcomes worthy of consideration by policymakers

(D) Economic growth in major economies will naturally resolve inequality over time as the Kuznets curve predicts, making redistributive policy unnecessary

Passage 4: Water Resource Management and Urban India

India's per-capita freshwater availability has declined from approximately 5,177 cubic metres per year at independence to below 1,600 cubic metres today — a figure that places the country below the internationally recognised water stress threshold of 1,700 cubic metres per person per year. This trajectory reflects both population growth and a pattern of demand that has been allowed to outpace investment in water conservation, recycling, and distribution efficiency.

Groundwater depletion is the most acute dimension of India's water crisis. An estimated 60% of India's total irrigation requirements are met from groundwater extraction, much of it unregulated and heavily subsidised through flat-rate electricity pricing that incentivises over-extraction. The Central Ground Water Board has classified a growing number of talukas across Punjab, Haryana, Rajasthan, and peninsular India as "over-exploited," meaning extraction exceeds annual recharge. Continued over-extraction risks permanent aquifer damage from compaction — a geological process that reduces future recharge capacity even if extraction rates are subsequently reduced.

The Chennai water crisis of 2019, in which the city's four primary reservoirs ran virtually dry, served as a stark illustration of what urban water mismanagement can produce. Chennai's crisis resulted from a combination of failed monsoon seasons, near-total dependence on surface water without groundwater or desalination backup, insufficient rainwater harvesting penetration despite Tamil Nadu being an early mandator of rooftop rainwater harvesting systems, and rapid urban expansion into wetlands and lake beds that historically served as natural recharge zones.

Rainwater harvesting represents a decentralised, cost-effective solution to urban water stress that can meaningfully reduce dependence on centralised surface water supply systems. Yet its implementation across Indian cities has been uneven and inadequate. While states like Tamil Nadu and Karnataka have mandated rainwater harvesting for new construction, enforcement is weak and the mandate does not apply to the vast existing building stock. Urban planning authorities in many cities have shown institutional resistance to making rainwater harvesting mandatory for existing structures, citing compliance complexity, enforcement burden, and the precedent of imposing retrofit obligations on private property owners.

Inter-state river disputes compound water scarcity at the macro level. The Cauvery and Krishna river disputes have periodically paralysed water sharing between Karnataka, Tamil Nadu, Andhra Pradesh, and Telangana, with agricultural seasons occasionally disrupted by injunctions and competing state claims. The absence of a robust, binding inter-state water governance framework leaves river basin management subject to political cycles rather than hydrological planning principles.

Delhi's aspiration to deliver 24×7 piped water supply to all households has remained a benchmark promise for two decades, while the reality — intermittent supply, large non-revenue water losses from aging distribution infrastructure, and unequal access between planned colonies and informal settlements — persists. The gap between water policy ambition and implementation capacity in Indian cities remains one of the most consequential and least addressed governance challenges.

Q36. What is the **central problem** the passage addresses?

(A) The geopolitical dimensions of inter-state river disputes between South Indian states

(B) The specific technical causes of the Chennai 2019 water crisis and the lessons learned

(C) India's failure to invest in desalination infrastructure as an alternative to surface and groundwater sources

(D) India's deteriorating per-capita freshwater availability, driven by unregulated groundwater depletion, inadequate rainwater harvesting, dysfunctional inter-state water governance, and a persistent gap between urban water policy ambition and implementation

Q37. The Chennai 2019 water crisis is cited in the passage primarily to illustrate. . .

(A) The consequences of urban water mismanagement when surface water dependence, inadequate rainwater harvesting, and encroachment on natural recharge zones combine — demonstrating the real cost of systemic failure

(B) The superior water management capabilities of North Indian cities compared to South Indian cities

(C) The inadequacy of rainwater harvesting as a solution to large-scale urban water crises

(D) The need for India to immediately invest in seawater desalination plants along its coastline

Q38. According to the passage, the **primary barrier** to broader rainwater harvesting adoption in urban India is...

(A) The high capital cost of rainwater harvesting systems that makes them unaffordable for most urban households

(B) Institutional resistance from urban planning authorities, weak enforcement of existing mandates, and the absence of retrofit obligations on the large existing building stock

(C) The technical complexity of integrating harvested rainwater into existing piped water distribution systems

(D) Inadequate monsoon rainfall in most Indian cities that makes rainwater harvesting economically unviable

Q39. What does the passage suggest about the link between **groundwater depletion** and **agriculture**?

(A) Agricultural groundwater extraction is adequately regulated by state governments and does not constitute a material long-term risk

(B) The shift from groundwater-intensive crops to drip-irrigated horticulture has already significantly reduced agricultural groundwater extraction in India

(C) Agricultural irrigation accounts for approximately 60% of groundwater extraction in India, and the combination of unregulated extraction and subsidised electricity incentivising over-pumping is driving unsustainable depletion that risks permanent aquifer damage

(D) Groundwater depletion in India is primarily driven by urban industrial water use rather than by agricultural irrigation

Q40. The author's attitude toward **urban planning authorities** in the context of rainwater harvesting is best described as...

(A) Sympathetic: the author acknowledges that urban planning authorities face genuine resource constraints that explain their inability to enforce rainwater harvesting mandates

(B) Neutral: the author presents urban planning authorities' position as one reasonable perspective in a balanced policy debate

(C) Commendatory: the author praises Tamil Nadu and Karnataka for successfully mandating and enforcing rainwater harvesting across their urban jurisdictions

(D) Critical: the author identifies urban planning authorities' institutional resistance and weak enforcement as a significant obstacle to a cost-effective solution for urban water stress

Part C: Quantitative Aptitude (Q 41–60)

Q41. If $\log_2 8 + \log_3 9 = x$, find the value of x.

(A) 4

(B) 5

(C) 6

(D) 7

Q42. Find the value of $\sin^2 30 + \cos^2 60 + \tan^2 45$.

(A) 1

(B) 1.25

(C) 1.5

(D) 2

Q43. In a group of 60 people, 35 like cricket, 28 like football, and 10 like both sports. How many people like **neither** cricket nor football?

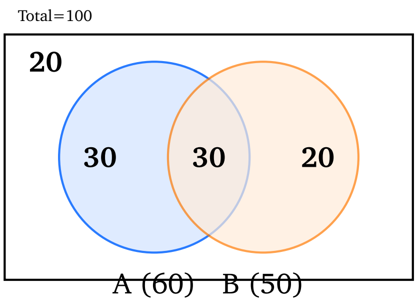
(A) 3

(B) 5

(C) 9

(D) 7

Q44. In a survey of 100 people, 60 read newspaper A, 50 read newspaper B, and 30 read both. How many people read **at least one** newspaper? Use the Venn diagram below.



(A) 80

(B) 70

(C) 90

(D) 60

Q45. The variance of 5 observations is 4. If each observation is multiplied by 3, what is the **new variance**?

(A) 12

(B) 36

(C) 4

(D) 108

Q46. In an election, candidate A receives 55% of the valid votes. If 10% of the total votes cast are invalid and the total votes cast is 80,000, find the number of **valid votes** received by candidate A.

(A) 36,000

(B) 38,000

(C) 39,600

(D) 44,000

Q47. A and B together can complete a piece of work in 12 days. B and C together can complete it in 15 days. A and C together can complete it in 20 days. In how many days can A, B, and C **working together** complete it?

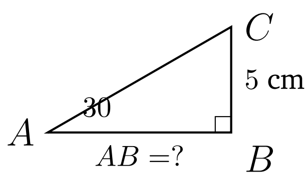
(A) 8 days

(B) 9 days

(C) 12 days

(D) 10 days

Q48. In triangle ABC, $\angle B = 90$, $BC = 5$ cm, and $\angle BAC = 30$. Find the length of AB (use $\tan 30 = \frac{1}{\sqrt{3}}$).



(A) $5\sqrt{3}$ cm

(B) 10 cm

(C) 5 cm

(D) $5\sqrt{2}$ cm

Q49. From 5 different books, in how many ways can a student select exactly **2 books**?

(A) 5

(B) 10

(C) 20

(D) 25

Q50. Two dice are thrown simultaneously. What is the probability of getting a **sum of 8**?

(A) $\frac{1}{6}$

(B) $\frac{7}{36}$

(C) $\frac{5}{36}$

(D) $\frac{1}{4}$

Q51. Find the compound interest on Rs. 20,000 at 15% per annum for 2 years, compounded annually.

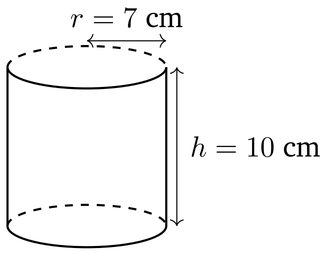
(A) Rs. 6,000

(B) Rs. 6,200

(C) Rs. 6,300

(D) Rs. 6,450

Q52. Find the **total surface area** of the cylinder shown below with radius 7 cm and height 10 cm. (Use $\pi = \frac{22}{7}$)



(A) 748 sq. cm

(B) 704 sq. cm

(C) 528 sq. cm

(D) 880 sq. cm

Q53. The ratio of boys to girls in a school is 5:4. If 200 more girls join the school, the ratio becomes 5:6. Find the **original number of boys**.

(A) 400

(B) 500

(C) 600

(D) 800

Q54. A man travels from city A to city B at 40 km/h and returns from B to A at 60 km/h. What is his **average speed** for the entire journey?

(A) 50 km/h

(B) 45 km/h

(C) 48 km/h

(D) 52 km/h

Q55. The difference between the compound interest and simple interest on a certain principal at 10% per annum for 2 years is Rs. 200. Find the **principal**.

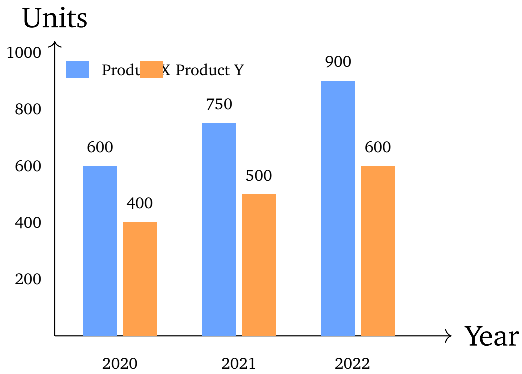
(A) Rs. 15,000

(B) Rs. 18,000

(C) Rs. 16,000

(D) Rs. 20,000

Q56. The grouped bar chart below shows production (in units) of Products X and Y from 2020 to 2022. By what percentage did the **total production** grow from 2020 to 2022?



(A) 50%

(B) 40%

(C) 45%

(D) 60%

Q57. Two cards are drawn at random from a standard deck of 52 cards **without replacement**. What is the probability that **both** cards drawn are queens?

(A) $\frac{1}{169}$

(B) $\frac{1}{221}$

(C) $\frac{4}{52}$

(D) $\frac{1}{13}$

Q58. Find the distance between points $A(-3, 4)$ and $B(5, -2)$ on the coordinate plane.

(A) 8

(B) 9

(C) 10

(D) 12

Q59. A shopkeeper gives a 25% discount on the marked price of an article and still gains 12.5% on the cost price. Find the **ratio of cost price to marked price**.

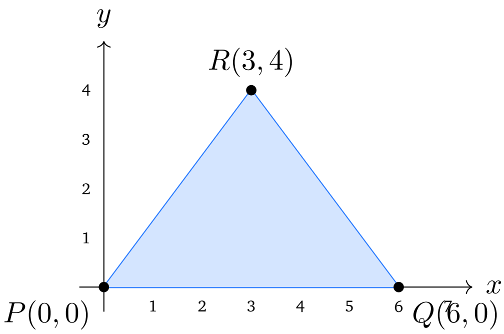
(A) 3:4

(B) 4:5

(C) 3:5

(D) 2:3

Q60. The vertices of triangle PQR are $P(0,0)$, $Q(6,0)$, and $R(3,4)$ as shown in the figure below. Find the **area** of triangle PQR.



(A) 12 sq. units

(B) 10 sq. units

(C) 15 sq. units

(D) 8 sq. units

Part D: Data Sufficiency (Q 61–80)

*Each question below presents a problem and two statements labelled **I** and **II**. Decide whether the data given in the statements are sufficient to answer the question. Choose:*

- **(A)** Statement I alone is sufficient, but Statement II alone is not sufficient.
- **(B)** Statement II alone is sufficient, but Statement I alone is not sufficient.
- **(C)** Both statements together are sufficient, but neither statement alone is sufficient.
- **(D)** Statements I and II together are not sufficient to answer the question.

Q61. What is the compound interest earned on a certain sum at the end of 2 years?

Statement I: The principal amount is Rs. 10,000.
Statement II: The rate of interest per annum is 8%, compounded annually.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q62. What is Meena's rank in her class?

Statement I: There are 40 students in the class.

Statement II: Meena scored 78 marks out of 100 in the examination.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q63. What is the 15th term of an arithmetic sequence?

Statement I: The first term is 4 and the common difference is 3.

Statement II: The 10th term of the sequence is 31.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q64. What is the arithmetic mean of a set of 6 numbers?

Statement I: The sum of the first 3 numbers is 45.

Statement II: The sum of all 6 numbers is 90.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q65. What is the amount (principal + interest) at the end of the investment period, compounded annually?

Statement I: The principal is Rs. 5,000 and the number of years is 3.
Statement II: The annual rate of interest is 10%.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q66. What is the median of a set of 7 different integers?

Statement I: The smallest number in the set is 5 and the largest is 35.
Statement II: The mean of the 7 numbers is 18.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q67. What is the 5th term of a geometric sequence?

Statement I: The first term is 2 and the common ratio is 3.
Statement II: The 3rd term of the sequence is 18.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q68. What is the mode of a dataset of 10 values?

Statement I: The mean of the dataset is 12 and the median is 11.
Statement II: The values are 8, 9, 10, 10, 10, 11, 12, 14, 15, 16.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q69. What is the difference between compound interest and simple interest on a sum for 2 years?

Statement I: The principal is Rs. 8,000.
Statement II: The rate of interest per annum is 5%.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q70. How many terms are there in an arithmetic sequence?

Statement I: The last term of the sequence is 97.
Statement II: The common difference is 4.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q71. What is the value of x?

Statement I: $3x + 7 = 22$.
Statement II: x is a positive integer less than 10.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q72. What is the variance of a set of observations?

Statement I: The mean of the observations is 10 and there are 5 observations.
Statement II: The observations are 6, 8, 10, 12, 14.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q73. What is the total compound interest earned at 12% per annum compounded annually?

Statement I: The principal is Rs. 25,000.
Statement II: The investment period is 2 years.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q74. What is the sum of the first n terms of a series?

Statement I: The first term of the series is 5.
Statement II: The value of n is 10.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q75. What is the value of $y^2 - 5y + 6$?

Statement I: $y = 3$.
Statement II: y is a root of the equation $y^2 - 5y + 6 = 0$.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q76. What is the average age (in years) of students in a group?

Statement I: The youngest student is 18 years old and the oldest is 24 years old.
Statement II: There are 8 students in the group and their total age is 168 years.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q77. What is the compound interest on a principal of Rs. 15,000?

Statement I: The rate of interest is 6% per annum, compounded annually.
Statement II: The investment period is 3 years.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q78. What is the 20th term of a sequence?

Statement I: The first term of the sequence is 7.
Statement II: The second term of the sequence is 14.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q79. What is the value of $p + q$?

Statement I: $2p + 2q = 18$.
Statement II: $p - q = 3$.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Q80. What is the standard deviation of a set of numbers?

Statement I: The mean of the set is 20 and there are 4 numbers in the set.

Statement II: The four numbers are 16, 18, 22, 24.

(A) Statement I alone is sufficient, but Statement II alone is not sufficient.

(B) Statement II alone is sufficient, but Statement I alone is not sufficient.

(C) Both statements together are sufficient, but neither statement alone is sufficient.

(D) Statements I and II together are not sufficient to answer the question.

Part E: General English (Q 81–100)

Q81. Choose the **correct indirect speech** form for the sentence below.

Direct: "She said, 'I am going to the market.'"

(A) She said that she is going to the market.

(B) She told that she was going to the market.

(C) She told me that she is going to the market.

(D) She said that she was going to the market.

Q82. Choose the **correct indirect speech** form for the sentence below.

Direct: "He said to me, 'Please help me.'"

(A) He requested me to help him.

(B) He told me to please help him.

(C) He said to me to help him.

(D) He asked me if I would help him.

Q83. Choose the **correct indirect speech** form for the sentence below.

Direct: "The teacher said, 'The earth revolves around the sun.'"

(A) The teacher said that the earth revolved around the sun.

(B) The teacher said that the earth revolves around the sun.

(C) The teacher told that earth revolves around sun.

(D) The teacher said the earth will revolve around the sun.

Q84. Choose the **correct indirect speech** form for the sentence below.

Direct: "She said, 'I had finished the work yesterday.'"

(A) She said she has finished the work the previous day.

(B) She said that she finished the work the previous day.

(C) She said that she had finished the work the previous day.

(D) She told that she had finished the work yesterday.

Q85. Choose the **correct indirect speech** form for the sentence below.

Direct: "He asked, 'Will you come with me?'"

(A) He asked if I would come with him.

(B) He asked me if you would come with him.

(C) He asked will I come with him.

(D) He asked me whether I would come with him.

Q86. Choose the **correct meaning** of the underlined phrasal verb.

"The annual conference was <u>called off</u> due to logistical difficulties."

(A) Cancelled

(B) Postponed

(C) Rescheduled

(D) Announced

Q87. Choose the **correct meaning** of the underlined phrasal verb.

"After years of struggle, he finally <u>gave up</u> smoking."

(A) Reduced

(B) Quit / stopped

(C) Started

(D) Continued

Q88. Choose the **correct meaning** of the underlined phrasal verb.

"The manager looked into the customer's complaint thoroughly."

(A) Ignored

(B) Overlooked

(C) Investigated

(D) Reported

Q89. Choose the **correct meaning** of the underlined phrasal verb.

"The two business partners fell out over the distribution of profits."

(A) Agreed enthusiastically

(B) Cooperated openly

(C) Discussed calmly

(D) Quarrelled / had a serious disagreement

Q90. Choose the **correct meaning** of the underlined phrasal verb.

"During the board meeting, the CFO brought up the issue of rising operational costs."

(A) Raised / mentioned

(B) Dismissed

(C) Ignored

(D) Contradicted

Q91. Choose the **correct word** to fill in the blank.

"The new workplace policy will have a profound _____ on employee morale."

(A) affect

(B) effect

(C) defect

(D) infect

Q92. Choose the **grammatically correct** option to fill in the blank.

"_____ of the two candidates is adequately qualified for the position."

(A) None

(B) All

(C) Neither

(D) Each

Q93. Choose the **correct word** to fill in the blank.

"The committee _____ the proposal on the table before the deadline."

(A) lain

(B) lied

(C) lay

(D) laid

Q94. Choose the **correct word** to fill in the blank.

"The audit findings were _____ to the management's earlier assurances."

(A) contrary

(B) contrarily

(C) contradict

(D) contraction

Q95. Choose the **most appropriate word** to fill in the blank.

"She was _____ by the overwhelmingly positive feedback she received from her team."

(A) humiliated

(B) gratified

(C) confused

(D) perturbed

Q96. Identify the **correctly spelled** word.

(A) Accomodation

(B) Acommodation

(C) Accommodation

(D) Accomodation

Q97. Identify the **correctly spelled** word.

(A) Embarassment

(B) Embarrasment

(C) Embarrasement

(D) Embarrassment

Q98. Identify the **correctly spelled** word.

(A) Millennium

(B) Millenium

(C) Milenium

(D) Millenniem

Q99. Identify the **correctly spelled** word.

(A) Occurance

(B) Occurrence

(C) Occurence

(D) Occurrense

Q100. Identify the **correctly spelled** word.

(A) Definately

(B) Definitley

(C) Definitely

(D) Definitaly

Detailed Solutions

Q1.

Solution

Concept — External Environment Analysis (PESTLE): Strategic decisions in competitive industries are primarily driven by external forces that lie beyond the firm's control. Among these, the simultaneous pressure of government policy favouring EVs and an imminent foreign competitor entering the market creates a time-bound strategic imperative.

Step 1 — Identify the external factors mentioned: Government GST reduction, FAME-III subsidy, 3% EV adoption rate, and a Chinese EV competitor entering by 2026.

Step 2 — Determine the most significant driver: While subsidies and GST reductions are positive demand signals, the Chinese competitor's entry creates a first-mover threat that could permanently capture EV market share before AutoFuture is ready. Combined with the policy tailwind, this dual pressure makes it the most critical external factor demanding a strategic response.

Why other options are wrong:

- Option A: Existing ICE capacity is an internal factor, not external.
- Option B: The Rs. 1,200 crore cost differential is an internal financial consideration.
- Option C: Internal R&D capability is an internal strength/weakness, not an external driver.

Final Answer: The competitive threat from a Chinese EV entrant combined with government EV policy constitutes the most significant external factor. $\Rightarrow \boxed{D}$

Answer: (D) Go Back to Q1

Q2.

Solution

Concept — Risk Analysis (Stranded Asset Risk): Stranded assets occur when capital-intensive investments lose economic value before the end of their useful life due to external changes in technology, regulation, or market preferences.

Step 1 — Identify what is unique to the full EV option: The full EV option requires writing off or significantly underutilising existing ICE production infrastructure worth thousands of crores.

Step 2 — Why this is unique to EV (not hybrid): The hybrid route preserves and continues to use ICE lines, avoiding stranded asset risk. Only the full EV route forces abandonment of ICE assets.

Why other options are wrong:

- Option B: GST hike risk applies to any EV-related strategy, not unique to the full EV platform option.
- Option C: Late-mover reputational risk applies to hybrid too if competitors launch full EVs.
- Option D: Lithium/cobalt supply chain risk applies equally to EVs and to hybrid batteries.

Final Answer: Stranded asset risk on ICE infrastructure is unique to the full EV option. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q2

Q3.

Solution

Concept — Implicit Assumption Analysis: Choosing the less capital-intensive hybrid route instead of full EV implicitly assumes that the market conditions justifying a full EV pivot will not materialise quickly enough to penalise the hybrid strategy.

Step 1 — What does the hybrid route require to be true? It requires that EV adoption remains slow enough in India that ICE/hybrid vehicles can continue generating commercially viable revenues beyond 2027.

Step 2 — Verify against other options: The hybrid choice says nothing about the Chinese entrant's regulatory approval, the continuation of FAME-III, or competitor timelines.

Why other options are wrong:

- Option A: The hybrid route does not require the Chinese entrant to fail regulatory approval.
- Option C: Withdrawal of FAME-III would actually *support* the hybrid choice, not be an implicit assumption underlying it.
- Option D: Competitor EV timelines are not the implicit assumption of choosing hybrid.

Final Answer: The hybrid route implicitly assumes modest EV adoption in the medium term. $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q3

Q4.

Solution

Concept — Strategic Response to Competitive Threat: The best response to an imminent foreign competitor is a phased strategy that addresses both near-term revenue continuity and long-term competitive positioning.

Step 1 — Evaluate Option C: Accelerating the hybrid range generates near-term revenue while a dedicated EV fund ring-fenced from cash flows provides a credible path to EV readiness by 2027 without committing the full Rs. 4,500 crore immediately.

Step 2 — Why the phased approach is optimal: It balances cash preservation, market continuity, and competitive preparation — the three requirements of a sound strategic response.

Why other options are wrong:

- Option A: Doubling down on ICE ignores the structural EV shift and the policy environment.
- Option B: Postponing investment until the competitor enters cedes first-mover advantage unnecessarily.
- Option D: Lobbying for import duties is a defensive tactic, not a sustainable competitive strategy.

Final Answer: A phased hybrid-now/EV-fund approach is the best strategic response. $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q4

Q5.

Solution

Concept — Factor Relevance to Investment Decision: To support a large capital investment, factors must create either demand pull, competitive necessity, or financial return. A low current adoption rate works *against* the immediate case for full EV investment rather than supporting it.

Step 1 — Evaluate 3% EV adoption: A 3% adoption rate means the mass market for EVs in India is not yet established. This is an argument for caution, not for a Rs. 4,500 crore full EV commitment.

Step 2 — Verify supporting factors: GST reduction improves demand economics (supports EV), FAME-III subsidy improves buyer affordability (supports EV), Chinese competitor entry creates urgency (supports EV). Only Option D (3% adoption) argues against.

Why other options are wrong:

- Option A: GST reduction directly supports EV investment by improving consumer price attractiveness.
- Option B: FAME-III subsidy supports EV demand and thus the investment case.
- Option C: Competitor entry creates competitive urgency that supports acting on full EV.

Final Answer: 3% EV adoption does NOT support the full EV investment case. $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q5

Q6.

Solution

Concept — Financial Impact Analysis: When annual costs exceed annual profitability, the net result is a loss. Compliance costs of Rs. 40 crore against an EBITDA of Rs. 25 crore create a negative EBITDA scenario.

Step 1 — Calculate net EBITDA impact: Rs. 25 crore (EBITDA) $-$ Rs. 40 crore (compliance cost) $=$ $-$Rs. 15 crore (negative EBITDA).

Step 2 — Interpret the financial consequence: EduLeap transitions from a profitable EBITDA-positive position to an EBITDA-negative one, making the regulatory compliance cost existentially significant without additional capital.

Why other options are wrong:

- Option B: Screen time limits reduce usage per subscriber but do not eliminate the subscriber base.
- Option C: The investor offer lapsing is a conditional risk, not the primary financial impact of the regulation itself.
- Option D: Revenue decline from fee capping could affect EBITDA but the passage identifies the compliance cost as the primary financial burden, not

the fee cap alone.

Final Answer: Compliance costs flip EduLeap to EBITDA-negative. $\Rightarrow \boxed{A}$

Answer: (A) Go Back to Q6

Q7.

Solution

Concept — Conditional Investment Logic: An investor offer that is partly contingent on compliance creates an incentive structure that links regulatory risk with capital availability, making compliance simultaneously a financial and a strategic priority.

Step 1 — Identify the conditionality: The Rs. 200 crore is partly contingent on demonstrating compliance within 6 months. This means compliance is not just a legal obligation — it is the key to unlocking capital that covers compliance costs and funds growth.

Step 2 — Compute the strategic leverage: Rs. 200 crore $\gg$ Rs. 40 crore annual compliance cost, meaning the investment proceeds can fund multiple years of compliance while leaving significant capital for growth.

Why other options are wrong:

- Option A: Whether the valuation is above sector average is not the strategically significant factor here.
- Option C: A 20% stake does not give the investor board control; it is a minority stake.
- Option D: The offer validates financial attractiveness, not specifically content quality.

Final Answer: The Rs. 200 crore investment unlocks capital contingent on compliance, making compliance a strategic priority. $\Rightarrow \boxed{B}$

Answer: (B) Go Back to Q7

Q8.

Solution

Concept — Compliance Pathway Analysis: Compliance actions must be directly relevant to the regulatory requirements: fee caps, screen time limits, and content audits. Actions unrelated to these requirements cannot contribute to compliance.

Step 1 — Identify what the regulation requires: (a) Fee caps, (b) daily screen time limits, (c) annual content audits. All compliance actions must address one or more of these.

Step 2 — Evaluate international expansion: Expanding into international markets grows revenue but does not address any of the three domestic compliance requirements. It diverts management bandwidth from the compliance deadline.

Why other options are wrong:

- Option A: A Chief Compliance Officer directly manages the compliance programme.
- Option B: Technology for screen-time tracking directly addresses the screen time mandate.
- Option D: Engaging a third-party auditor directly initiates the required content audit.

Final Answer: International market expansion does NOT help achieve domestic regulatory compliance. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q8

Q9.

Solution

Concept — Policy Intent Inference: Regulations targeting fee caps, screen time, and content audits are protective in nature — they guard students from financial exploitation, health harm from excessive digital consumption, and exposure to unverified or misleading content.

Step 1 — Decode each regulatory requirement: Fee cap $\rightarrow$ protect from financial exploitation. Screen time limit $\rightarrow$ protect from health/addiction harm. Content audit $\rightarrow$ protect from misinformation/quality deficits.

Step 2 — Infer intent: The regulation is protective and sector-regulating, not eliminatory. The government permits ed-tech to operate but within boundaries that protect student welfare.

Why other options are wrong:

- Option A: There is no indication of nationalisation intent in the described measures.
- Option B: The regulation does not target valuations or foreign investment — it targets consumer protection.
- Option C: The regulation imposes operating conditions, not a ban; private platforms can continue operating.

Final Answer: The government seeks to regulate and protect, not eliminate, the ed-tech sector. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q9

Q10.

Solution

Concept — Strategic Priority Under Constraint: When a high-value contingent outcome (Rs. 200 crore investment) depends on a near-term action (6-month compliance), the rational strategy is to prioritise the action that unlocks the contingent benefit.

Step 1 — Map the decision tree: Achieve compliance $\rightarrow$ secure Rs. 200 crore $\rightarrow$ fund compliance costs + growth. Fail compliance $\rightarrow$ lose investment $\rightarrow$ face negative EBITDA with no capital buffer.

Step 2 — Select the rational path: The Rs. 200 crore outcome is the dominant rational choice. Prioritising compliance within 6 months is the strategy that converts a financial crisis into a funded growth opportunity.

Why other options are wrong:

- Option B: Merging with an offline brand does not solve the compliance deadline or secure the capital.
- Option C: Court challenges may take longer than 6 months and risk losing the investor offer entirely.
- Option D: Voluntarily reducing subscribers reduces revenue without solving the compliance problem.

Final Answer: Prioritise compliance within 6 months to secure the Rs. 200 crore investment. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q10

Q11.

Solution

Concept — M&A Value Drivers: A privatisation deal creates value when it enables debt retirement, operational improvement, and technology-driven capacity enhancement that the existing operator cannot achieve alone.

Step 1 — Compute financial benefit: Deal proceeds: Rs. 2,800 crore. Existing debt: Rs. 950 crore. Retirement of entire debt frees Rs. 420 crore annual EBITDA from debt servicing. Surplus capital remains for reinvestment.

Step 2 — Add operational benefit: GPO's technology can increase throughput by 40%, boosting revenues and EBITDA further. Together, debt elimination and throughput growth create a compelling value proposition.

Why other options are wrong:

- Option A: The passage does not state that Rs. 2,800 crore equals book value; this is not the compelling reason.
- Option C: A 74% stake means BluePort *loses* majority operational control, not retains it.
- Option D: Union support is uncertain and is not a compelling financial reason to accept the deal.

Final Answer: Debt retirement and 40% throughput growth are the most compelling reasons to accept. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q11

Q12.

Solution

Concept — Stakeholder Balancing in Public-Private Transactions: When state governments support privatisation with protective conditions, they are managing competing obligations: enabling economic modernisation while honouring social contracts with existing workers.

Step 1 — Interpret the 10-year employee protection clause: The clause imposes a time-bound constraint on GPO's ability to reduce the workforce. The state government is allowing the deal but placing a social safeguard.

Step 2 — Characterise the intent: This reflects a balancing act — accepting economic benefits of privatisation while protecting current employees from immediate job losses caused by automation.

Why other options are wrong:

- Option A: The state government is supportive of the deal; scepticism about GPO's technology is not reflected.
- Option B: The state government supports the deal; adding a realistic protection clause is not obstruction.
- Option D: The clause addresses workforce protection, not monopoly regulation.

Final Answer: The clause reflects balancing economic modernisation with workforce protection. $\Rightarrow \boxed{C}$

Answer: (C) Go Back to Q12

Q13.

Solution

Concept — Implementation Risk Assessment: Implementation risk comes from stakeholders who have both the motive and the means to disrupt a transaction during or after its execution. Organised labour with operational leverage poses the highest implementation risk.

Step 1 — Assess union leverage: Port workers' unions can call strikes, slow down operations, and create visible disruption that can embarrass GPO, delay technology deployment, and attract political attention that could unravel the deal.

Step 2 — Compare with other stakeholders: The state government is supportive. Bondholders' interests are addressed by debt repayment. GPO's overseas shareholders approved the bid. Only the unions have both a clear motive (job protection) and direct operational leverage.

Why other options are wrong:

- Option A: The state government is supportive; the protection clause manages its concern.
- Option B: Bondholders benefit from debt repayment and are unlikely to obstruct.
- Option C: GPO's shareholders approved the India bid; overseas regulatory aversion is not mentioned.

Final Answer: Port workers' unions pose the greatest implementation risk. $\Rightarrow \boxed{D}$

Answer: (D) Go Back to Q13

Q14.

Solution

Concept — Transaction Financial Impact: The primary financial impact of a privatisation deal is determined by what the inflow does to the balance sheet, particularly the debt position and interest cost.

Step 1 — Compute balance sheet impact: Rs. 2,800 crore proceeds − Rs. 950 crore debt = Rs. 1,850 crore surplus. Full debt elimination removes annual interest payments, improving net profitability and credit rating.

Step 2 — Identify the primary impact: Deleveraging is the most immediate and certain financial consequence of the deal. EBITDA improvement from technology is secondary and subject to implementation timelines.

Why other options are wrong:

- Option B: EBITDA will not "immediately double" — technology deployment takes time.
- Option C: The passage describes a direct stake purchase, not a public open offer obligation.
- Option D: A guaranteed Rs. 600 crore EBITDA is not mentioned; it is a projected possibility.

Final Answer: Significant deleveraging (full Rs. 950 crore debt retirement) is the primary financial impact. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q14

Q15.

Solution

Concept — Technology Value in Capital-Intensive Industries: In port operations, throughput is constrained by land (fixed) and labour (scalable). Automation increases throughput without proportionate increases in either, generating superior returns on fixed assets.

Step 1 — Analyse the technology: Automated stacking cranes reduce per-move cycle time; AI-based berth scheduling eliminates idle berth time. Together, these address the two primary throughput bottlenecks in container terminal operations.

Step 2 — Why this is particularly valuable: A 40% throughput increase at the same terminal footprint and similar workforce means 40% more revenue from the same fixed-cost base — a dramatic EBITDA improvement.

Why other options are wrong:

- Option A: Brand attraction of shipping lines is secondary; operational efficiency is the primary driver.
- Option C: The technology enables automation but the 10-year clause still applies; the passage does not say the clause can be shortened.
- Option D: North Indian installation is not mentioned; ease of adoption is not the stated reason for value.

Final Answer: Automation enables 40% throughput growth without proportionate land or labour increase. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q15

Q16.

Solution

Concept — Corporate Ethics and Financial Integrity: Over-reporting revenues is a material misstatement of financial results. It triggers obligations under securities law, SEBI regulations, and corporate governance norms to disclose and restate.

Step 1 — Identify the correct escalation path: The audit committee is the appropriate internal body for financial irregularities. Legal counsel ensures regulatory compliance. Auditors must be notified for proper restatement.

Step 2 — Why immediate escalation is mandatory: Concealing financial misstatements, even temporarily, compounds legal liability and deepens the ethical breach. The finance manager has a fiduciary duty to act immediately.

Why other options are wrong:

- Option A: Quietly adjusting accounts conceals the misstatement from those entitled to know — this is itself a violation.
- Option B: Informing only the CFO without auditors is insufficient and may constitute concealment if the CFO is involved.
- Option D: Waiting for the annual audit prolongs the period during which investors receive false information.

Final Answer: Immediate escalation to the audit committee, legal counsel, and auditors is the only ethical course. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q16

Q17.

Solution

Concept — Ethical HR Practice in Reductions-in-Force: Layoffs must balance business urgency with legal compliance, fairness to affected employees, and institutional integrity. Arbitrary or rushed processes create legal liability and reputational damage.

Step 1 — Identify the correct approach: A performance and criteria-based selection ensures objectivity. Legal process compliance (notice period, severance under the Industrial Disputes Act or applicable labour law) is mandatory. Outplacement support reflects ethical responsibility.

Step 2 — Address the CEO's timeline: The HR director should negotiate with the CEO to extend the timeline if legally required processes cannot be completed in one week, rather than cutting legal corners.

Why other options are wrong:

- Option A: Immediate execution without legal process creates liability and is ethically indefensible.
- Option B: Indefinite delay ignores the legitimate business necessity driving the restructuring.
- Option C: Random selection violates principles of fairness and proportionality and could harm business continuity.

Final Answer: Fair criteria-based selection, legal compliance, and severance/outplacement support is the best approach. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q17

Q18.

Solution

Concept — Conflict of Interest Management: Receiving a gift from a vendor during an active evaluation creates an actual or perceived conflict of interest. The only fully ethical response is to return the gift and remove the conflict by recusing from the evaluation.

Step 1 — Why return and disclose: Returning the gift eliminates the basis for any perception of impropriety. Disclosing to the ethics officer ensures institutional transparency and protects the procurement officer legally.

Step 2 — Why recusal is necessary: Even with the best intentions, the procurement officer's continued participation in the evaluation after receiving a gift is irrecoverably compromised in appearance. Recusal is the only clean solution.

Why other options are wrong:

- Option B: Keeping a declared gift still creates a conflict; declaration alone is insufficient.
- Option C: Consulting a peer does not resolve the conflict and diffuses responsibility inappropriately.
- Option D: Keeping the gift while promising fairness is ethically untenable and institutionally impermissible.

Final Answer: Return the gift, disclose to ethics officer, and recuse from the evaluation. $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q18

Q19.

Solution

Concept — Sunk Cost Fallacy vs. Product Integrity: The sunk cost fallacy involves continuing a flawed course of action because of past investment. Sound decision-making requires evaluating future consequences, not past costs.

Step 1 — Assess the situation: The product is marketed but not yet launched — meaning customer harm has not yet occurred. There is still an opportunity to correct the flaw before it affects users.

Step 2 — Choose the rational path: Delaying the launch to conduct rigorous research and revise the feature prevents customer harm, preserves brand trust, and is commercially superior to launching a feature likely to generate negative user feedback.

Why other options are wrong:

- Option A: Launching because marketing costs are sunk is the sunk cost fallacy and ethically irresponsible.
- Option C: Launching with a disclaimer acknowledges the flaw but still knowingly delivers a defective product.
- Option D: Abandoning the feature entirely is too extreme — revision is possible and more cost-effective.

Final Answer: Delay the launch, conduct new research, and revise the feature. $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q19

Q20.

Solution

Concept — Internal Fraud Reporting Protocol: Suspected fraud by an employee must be handled through the institution's prescribed internal fraud or vigilance reporting channels before external regulatory escalation.

Step 1 — Identify the correct first action: Filing an internal suspicious activity report with the bank's vigilance officer initiates the formal investigation process, preserves evidence, and complies with RBI's internal control guidelines for banks.

Step 2 — Why internal reporting comes first: Internal reporting allows the institution to investigate, preserve documentation, and report to regulators in a structured manner. Bypassing internal channels can compromise the investigation.

Why other options are wrong:

- Option A: Directly confronting the employee may destroy evidence, prompt evasion, and is not a formal reporting step.
- Option B: Informal warnings are wholly insufficient for what is a criminal matter involving bribery.
- Option D: Bypassing internal reporting and going directly to RBI undermines the bank's own governance and may violate internal escalation protocols.

Final Answer: File an internal suspicious activity report with the bank's vigilance officer. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q20

Q21.

Solution

Concept — Identifying the Central Argument of a Passage: The central argument encompasses the entire scope of the passage, not just one dimension. The passage covers falling renewable costs, stranded asset risk, just transition, rare earth geopolitics, and developing nation equity arguments.

Step 1 — Survey all themes: Cost decline of renewables (economic inevitability), stranded assets (disruption), just transition (social challenge), rare earth minerals (new geopolitical dependency), equity debate (North-South divide), India's 500

GW target (implementation challenge).

Step 2 — Identify the unifying argument: The green energy transition is economically inevitable but creates parallel disruptions — the passage argues for acknowledging and managing these disruptions.

Why other options are wrong:

- Option B: The passage does not say renewables will replace all fossil fuels within a decade.
- Option C: The author implies the 500 GW target faces challenges but does not call it unrealistic.
- Option D: Developed-nation funding obligations are not the central argument; they are one element of the equity debate.

Final Answer: The central argument is that the green transition is inevitable but creates parallel disruptions. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q21

Q22.

Solution

Concept — Identifying Purpose of a Concept in a Passage: When a passage introduces a policy concept, it serves a specific purpose within the argument. "Just transition" is introduced after discussion of coal-dependent industries facing phasedown.

Step 1 — Locate the context: The passage says "a just transition acknowledges that coal miners, plant operators, and communities economically dependent on fossil fuel industries cannot simply be left behind."

Step 2 — Identify the purpose: It is introduced to address the social and economic vulnerability of fossil fuel workers and communities during the energy transition.

Why other options are wrong:

- Option A: Renewable project delays are not the subject of the just transition discussion.
- Option C: Attracting foreign investment is not the purpose of the just transition concept.
- Option D: Grid integration challenges are technical, not the social focus of just transition.

Final Answer: Just transition addresses social/economic vulnerability of fossil fuel workers. $\Rightarrow$ $\boxed{\text{B}}$

$\boxed{\textbf{Answer: (B)}}$ Go Back to Q22

Q23.

Solution

Concept — Geopolitical Implications in the Passage: The passage explicitly frames rare earth minerals as creating a new geopolitical dependency that mirrors the twentieth century's oil geopolitics.

Step 1 — Locate the relevant text: "Nations that successfully secured oil supply chains in the twentieth century now face the parallel challenge of securing critical mineral supply chains."

Step 2 — Identify the significance: The transition from oil dependence to mineral dependence is the author's point — energy independence from fossil fuels does not mean geopolitical independence if battery minerals are similarly concentrated.

Why other options are wrong:

- Option A: Rising prices are not explicitly mentioned as the key issue.
- Option B: Export restrictions are not mentioned in the passage.
- Option D: India's inability to manufacture EV batteries is not stated; the passage addresses supply chain geopolitics, not India's specific manufacturing capability.

Final Answer: Rare earth minerals create a new geopolitical dependency replacing oil dependence. $\Rightarrow$ $\boxed{\text{C}}$

$\boxed{\textbf{Answer: (C)}}$ Go Back to Q23

Q24.

Solution

Concept — Understanding Position Representation in a Passage: The passage directly states the developing nations' argument: historical emissions responsibility lies with industrialised nations, and developing nations should not be denied the same fossil-fuel development pathway.

Step 1 — Locate the relevant text: "They contend that the historical carbon emissions driving climate change were overwhelmingly produced by industrialised economies, and that developing nations should not be denied the same fossil-fuel-based development pathway that created Western prosperity.”

Step 2 — Match with answer option: Option D directly reflects this position.

Why other options are wrong:

- Option A: Developing nations are not described as unwilling to invest in renewables.
- Option B: Battery mineral cost is not cited as the developing nations’ argument.
- Option C: Technology patent sharing is not mentioned in the passage as the developing nations’ position.

Final Answer: Developing nations argue they should not be denied fossil-fuel development pathways given historical emission responsibility. $\Rightarrow \boxed{D}$

Answer: (D) Go Back to Q24

Q25.

Solution

Concept — Authorial Implication vs. Explicit Statement: Authors imply things through qualified language and by listing practical obstacles after stating an ambitious goal.

Step 1 — Locate the 500 GW discussion: The passage says the target “signals intent” and lists multiple practical bottlenecks: land acquisition, grid integration, financing gaps, transmission infrastructure.

Step 2 — Identify the implication: By using the phrase “whether policy execution will match it remains a live question,” the author implies uncertainty — the target is ambitious but its achievement is not guaranteed.

Why other options are wrong:

- Option B: The passage identifies multiple obstacles, contradicting the idea it is “easily achievable.”
- Option C: The author implies execution challenges, not early achievement.
- Option D: The passage does not characterise the target as merely diplomatic; it discusses real domestic execution requirements.

Final Answer: India’s 500 GW target is ambitious with uncertain achievement due to implementation bottlenecks. ⇒ $\boxed{A}$

Answer: (A) Go Back to Q25

Q26.

Solution

Concept — Identifying a Paradox in a Passage: A paradox involves two facts that appear contradictory. The passage explicitly calls out India's food paradox.

Step 1 — Locate the paradox: "India presents a striking paradox... The country regularly records bumper foodgrain harvests... Yet... India carries one of the world's highest burdens of child stunting and undernutrition."

Step 2 — Identify the resolution: The paradox reflects a problem of food *access* rather than food *production* — a failure of distribution and income, not supply.

Why other options are wrong:

- Option A: The passage does not say India imports wheat/rice; it says India exports and holds reserves.
- Option C: Precision agriculture adoption is described as very low in India — the opposite of Option C.
- Option D: India's undernutrition burden is one of the world's *highest*, not below average.

Final Answer: India paradoxically has record foodgrain production alongside high undernutrition. ⇒ $\boxed{B}$

Answer: (B) Go Back to Q26

Q27.

Solution

Concept — Purpose of Evidence in a Passage: When an author introduces a policy programme, the purpose is to support or illustrate a specific argument about the theme being discussed.

Step 1 — Identify why MGNREGS is mentioned: The passage is discussing food access barriers for low-income households. MGNREGS is mentioned because it generates income during agricultural lean seasons that enables poor households to purchase food.

Step 2 — Match to the passage's argument: The scheme serves as a "nutritional floor" — income transferred through wages directly supports food access.

Why other options are wrong:

- Option A: The passage does not suggest replacing MGNREGS with direct food distribution.
- Option B: The passage does not say MGNREGS is the single most effective tool; it says it "plays an underappreciated role."
- Option D: The passage critiques poor implementation but does not call for linking wages to nutritional cost; that is not the reason MGNREGS is cited.

Final Answer: MGNREGS income provides a nutritional floor for vulnerable rural households during lean seasons. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q27

Q28.

Solution

Concept — Inferring Author's Position from Balanced Discussion: When an author presents a debate without explicitly resolving it and notes that it will "intensify," the implication is that the tension is real and unresolved.

Step 1 — Identify author's framing: The passage describes India's export ban decisions as drawing "criticism from global trade partners" but being "defended by policymakers." The author does not take sides but notes the tension will intensify.

Step 2 — Select the option that matches this neutral-but-concerned framing: Option D captures the genuinely unresolved nature of the tension, which is what the passage conveys.

Why other options are wrong:

- Option A: The passage does not recommend a permanent export ban.
- Option B: The passage explicitly describes the tension as real — the two objectives are not always compatible.
- Option C: The passage defends India's food security decisions as having a valid domestic rationale, not as "economically damaging."

Final Answer: The food export vs. security tension is genuine, unresolved, and will intensify with climate variability. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q28

Q29.

Solution

Concept — Accurately Reproducing Passage Content: Factual retrieval questions require matching the answer to what the passage explicitly states, not inference.

Step 1 — Locate the precision agriculture paragraph: The passage states precision agriculture "holds significant promise for improving yields...However, its adoption among India's 86 million smallholder farmers...is severely constrained by high upfront capital costs, limited digital literacy, unreliable rural internet connectivity, and a fragmented land holding structure."

Step 2 — Match to Option A: Option A accurately reproduces the passage's position: promise exists but adoption is constrained, requiring policy intervention.

Why other options are wrong:

- Option B: The passage says adoption is severely constrained, not "already widely adopted."
- Option C: The passage does not say precision agriculture is irrelevant to smallholders; it says adoption barriers exist.
- Option D: The passage recommends FPO-level aggregation as a future solution, not as an already-deployed success.

Final Answer: Precision agriculture has promise but faces severe adoption barriers for smallholder farmers. $\Rightarrow \boxed{A}$

Answer: (A) Go Back to Q29

Q30.

Solution

Concept — Identifying Authorial Tone: Tone is identified by examining word choices, the problems highlighted, the limitations of solutions described, and whether the author implies current governance is adequate or inadequate.

Step 1 — Assess the passage's tone markers: The passage highlights 828 million undernourished people, India's paradox, MGNREGS implementation failures, the unresolved export-security tension, and precision agriculture's inaccessibility. Each is presented as a current systemic failure.

Step 2 — Characterise the tone: The author is critically concerned — acknowledging the scale of the problem and the inadequacy of current responses without descending into polemic or assigning blame to one party.

Why other options are wrong:

- Option A: The passage does not suggest existing institutions are adequate — it highlights failures.
- Option C: The author clearly passes normative judgments (calling India's situation a "striking paradox," noting MGNREGS is "underappreciated").
- Option D: The author is not polemical — blame is not assigned exclusively to rich nations.

Final Answer: The author's tone is critically concerned about systemic failures in global food security governance. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q30

Q31.

Solution

Concept — Identifying the Main Tension in a Passage: The main tension is the central intellectual conflict that organises the passage's argument and evidence.

Step 1 — Identify the two competing positions: (1) The Kuznets hypothesis: growth will naturally reduce inequality over time. (2) Empirical evidence: inequality persists even in high-income economies, demanding active policy.

Step 2 — Confirm this is the organising tension: The passage introduces this tension early and then examines UBI, social sector spending, and trickle-down economics as evidence for or against active policy intervention.

Why other options are wrong:

- Option A: Fiscal prudence vs. infrastructure investment is not the central tension of this passage.
- Option B: Economic nationalism and globalised trade are not discussed.
- Option D: The UBI vs. education debate is one element within the broader tension about active policy, not the main tension itself.

Final Answer: The main tension is between the expectation that growth naturally reduces inequality and the empirical evidence that it does not. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q31

Q32.

Solution

Concept — Purpose of an Example in a Passage: Specific studies or experiments are cited to provide empirical evidence for or against a claim. The Finland UBI experiment appears immediately after the author introduces UBI as a concept.

Step 1 — Locate the citation context: "Finland's 2017–2018 UBI experiment…found that recipients experienced significantly improved mental wellbeing…and no reduction in employment-seeking behaviour — contradicting fears that unconditional income transfers would create welfare dependency."

Step 2 — Identify the purpose: It is cited to provide evidence contradicting the welfare dependency objection to UBI — not to advocate for UBI universally or to claim it is superior to other tools.

Why other options are wrong:

- Option A: The author does not say Finland's model should be adopted universally.
- Option B: The passage later argues social sector spending is more structurally effective than direct transfers.
- Option C: The passage does not say European welfare states have "solved" inequality.

Final Answer: Finland UBI experiment is cited to counter welfare dependency fears about unconditional income transfers. $\Rightarrow \boxed{\text{D}}$

Answer: (D) **Go Back to Q32**

Q33.

Solution

Concept — Author's Policy Recommendation from Passage: The author's preferred policy tool is identified by finding where comparative judgment is made between different approaches.

Step 1 — Locate the relevant paragraph: "The evidence from targeted social sector spending suggests that public investment in health and education may be a more structurally effective lever for reducing inequality than direct income transfers."

Step 2 — Confirm Option A: The passage explicitly identifies health and education investment as the more effective structural tool, building human capital that raises earning capacity across the income distribution.

Why other options are wrong:

- Option B: UBI is presented as beneficial but less structurally effective than health/education investment.
- Option C: Progressive corporate taxation is not recommended in the passage.
- Option D: Trickle-down economics is explicitly critiqued as empirically ineffective.

Final Answer: Social sector investment in health and education is the most structurally effective lever for reducing inequality. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q33

Q34.

Solution

Concept — Relevance of a Theory to the Passage's Argument: The Kuznets curve is relevant because it directly addresses whether active policy is needed or whether growth alone is sufficient.

Step 1 — Identify what the Kuznets curve predicts: It predicts that inequality first rises and then falls as income grows — implying policymakers could wait for growth to solve inequality.

Step 2 — Identify why this is relevant to the passage: If the Kuznets curve holds, active redistribution policy is unnecessary. If it does not hold (as the passage argues empirically), active policy becomes essential. The debate is about whether policymakers need to act or wait.

Why other options are wrong:

- Option A: The passage does not determine whether India has passed the Kuznets turning point; it questions the curve's validity.
- Option C: Measurement methodology is not the relevance the passage assigns to the Kuznets debate.
- Option D: The agriculture-to-industry wage inequality transition is an illustration within the Kuznets theory, not the reason the debate is relevant.

Final Answer: The Kuznets curve debate asks whether growth alone reduces inequality, or whether active policy is required. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q34

Q35.

Solution

Concept — Identifying Author Disagreement: The question asks for the statement the author would most likely disagree with. The author's position must be reconstructed from the passage's overall argument.

Step 1 — Establish the author's core position: The author argues that (a) economic growth does not automatically reduce inequality, (b) active redistributive policy is required, and (c) trickle-down economics has failed empirically.

Step 2 — Identify the statement contradicting the author's position: Option D states that growth will "naturally resolve inequality" — precisely the Kuznets hypothesis and trickle-down logic that the passage argues is empirically unsupported.

Why other options are wrong:

- Option A: The author would agree that rising wealth concentration in India raises serious concerns.
- Option B: The author explicitly endorses social sector investment as more effective than cash transfers.
- Option C: The author presents Finland UBI results as worthwhile evidence for policymakers to consider.

Final Answer: The author would disagree that growth will naturally resolve inequality without redistributive policy. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q35

Q36.

Solution

Concept — Central Problem Identification in a Multi-Dimensional Passage: The central problem encompasses all dimensions of the passage, not just one case study or one cause.

Step 1 — Survey the passage themes: Declining per-capita water availability, unregulated groundwater depletion, inadequate rainwater harvesting, urban water mismanagement (Chennai case), inter-state river disputes, and the gap between policy ambition and implementation.

Step 2 — Select the option that captures all dimensions: Option D integrates all four major dimensions: per-capita scarcity, groundwater depletion, rainwater harvesting failure, dysfunctional inter-state governance, and the policy-implementation gap.

Why other options are wrong:

- Option A: Inter-state river disputes are one element, not the central problem.
- Option B: Chennai's crisis is a case study illustrating the central problem, not the central problem itself.
- Option C: Desalination investment is not the passage's focus; it is not mentioned as the solution.

Final Answer: India's multi-dimensional water crisis spanning scarcity, depletion, governance, and implementation failure is the central problem. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q36

Q37.

Solution

Concept — Purpose of a Case Study in a Passage: Case studies illustrate broader arguments. The Chennai crisis is cited to demonstrate the consequences of systemic urban water mismanagement.

Step 1 — Locate the Chennai paragraph: The passage says Chennai's crisis resulted from "failed monsoon seasons, near-total dependence on surface water...insufficient rainwater harvesting penetration...rapid urban expansion into wetlands."

Step 2 — Identify the purpose: It illustrates what urban water mismanagement produces when multiple failure modes — surface dependence, weak harvesting, wetland encroachment — converge simultaneously.

Why other options are wrong:

- Option B: The passage draws no comparison between North and South Indian city management.
- Option C: The passage does not say rainwater harvesting is inadequate as a solution; it says penetration was insufficient — implying more harvesting would have helped.
- Option D: Desalination is not mentioned as the lesson from Chennai; the passage focuses on surface water dependence and rainwater harvesting gaps.

Final Answer: Chennai 2019 illustrates the consequences of combining surface water dependence, weak rainwater harvesting, and wetland encroachment. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q37

Q38.

Solution

Concept — Identifying Primary Barriers from a Passage: When multiple barriers are listed, the primary barrier is the one the author most directly identifies as the obstacle to adoption.

Step 1 — Locate the rainwater harvesting barriers paragraph: The passage states: "urban planning authorities in many cities have shown institutional resistance to making rainwater harvesting mandatory for existing structures, citing compliance complexity, enforcement burden, and the precedent of imposing retrofit obligations." It also notes weak enforcement of existing mandates and no retrofit obligation on existing buildings.

Step 2 — Identify the primary barrier: Institutional resistance and weak enforcement are presented as the dominant barriers, not cost or rainfall inadequacy.

Why other options are wrong:

- Option A: High capital cost is not identified as the primary barrier in the passage.
- Option C: Technical integration complexity is not cited as the primary barrier.
- Option D: The passage does not say monsoon rainfall is insufficient for harvesting viability.

Final Answer: Institutional resistance from planning authorities and weak enforcement are the primary barriers. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q38

Q39.

Solution

Concept — Retrieving Specific Passage Content: The question asks what the passage states about the agriculture-groundwater link.

Step 1 — Locate the relevant paragraph: "An estimated 60% of India's total irrigation requirements are met from groundwater extraction, much of it unregulated and heavily subsidised through flat-rate electricity pricing that incentivises over-extraction."

Step 2 — Match with Option C: Option C accurately states that agriculture accounts for 60% of groundwater extraction, that extraction is unregulated and subsidised, and that over-pumping risks permanent aquifer damage.

Why other options are wrong:

- Option A: The passage explicitly says extraction is largely *un*regulated, contradicting Option A.
- Option B: No shift to drip-irrigated horticulture is mentioned in the passage.
- Option D: The passage identifies agricultural irrigation, not urban industry, as the primary driver of groundwater depletion.

Final Answer: Agriculture accounts for 60% of groundwater extraction; unregulated over-pumping risks permanent aquifer damage. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q39

Q40.

Solution

Concept — Identifying Authorial Attitude Toward a Specific Actor: Attitude is revealed through the language and judgments the author applies to a specific group.

Step 1 — Locate what the author says about urban planning authorities: "Urban planning authorities in many cities have shown institutional resistance to making rainwater harvesting mandatory for existing structures. . . " The passage frames this as an obstacle to a "cost-effective solution for urban water stress."

Step 2 — Characterise the tone: The author identifies their resistance as a significant obstacle to a solution the author clearly favours — this is a critical stance.

Why other options are wrong:

- Option A: The passage does not acknowledge resource constraints as a sympathetic explanation for the resistance.
- Option B: The author does not present the authorities' position as one reasonable perspective in a balanced debate; the author frames their resistance as an obstacle.
- Option C: The passage says Tamil Nadu mandated rainwater harvesting but also notes enforcement is weak and the mandate does not apply to existing buildings — this is not commendatory.

Final Answer: The author is critical of urban planning authorities' institutional resistance to rainwater harvesting mandates. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q40

Q41.

Solution

Concept — Logarithms: $\log_b a = n$ means $b^n = a$. Apply the definition to evaluate each term.

Step 1 — Evaluate $\log_2 8$**:** $2^3 = 8 \Rightarrow \log_2 8 = 3$.

Step 2 — Evaluate $\log_3 9$**:** $3^2 = 9 \Rightarrow \log_3 9 = 2$.

Step 3 — Add: $x = 3 + 2 = 5$.

Why other options are wrong:

- Option A (4): Miscalculates one of the logarithms (e.g. treats $\log_2 8 = 2$).
- Option C (6): Overcounts one term.
- Option D (7): Adds incorrectly.

Final Answer: $x = 5 \Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q41

Q42.

Solution

Concept — Trigonometric Values: Standard angles: $\sin 30 = \frac{1}{2}$, $\cos 60 = \frac{1}{2}$, $\tan 45 = 1$.

Step 1 — Compute each term: $\sin^2 30 = \left(\frac{1}{2}\right)^2 = 0.25$. $\cos^2 60 = \left(\frac{1}{2}\right)^2 = 0.25$. $\tan^2 45 = 1^2 = 1$.

Step 2 — Sum: $0.25 + 0.25 + 1 = 1.5$.

Why other options are wrong:

- Option A (1): Forgets that $\tan^2 45$ contributes 1, not 0.
- Option B (1.25): Counts only one of the squared sine/cosine terms.
- Option D (2): Overstates the result by adding 0.5 instead of 0.25 for each trigonometric term.

Final Answer: $\sin^2 30 + \cos^2 60 + \tan^2 45 = 1.5 \Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q42

Q43.

Solution

Concept — Set Theory (Inclusion-Exclusion Principle): $n(C \cup F) = n(C) + n(F) - n(C \cap F)$.

Step 1 — Apply inclusion-exclusion: $n(C \cup F) = 35 + 28 - 10 = 53$.

Step 2 — Find those who like neither: Neither $= 60 - 53 = 7$.

Why other options are wrong:

- Option A (3): $60 - (35 + 28) = -3$ (error: forgets to apply inclusion-exclusion).
- Option B (5): Arithmetic error in applying the formula.
- Option C (9): Forgets to subtract the "both" group, getting $60 - 51 = 9$.

Final Answer: 7 people like neither cricket nor football $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q43

Q44.

Solution

Concept — Venn Diagram / Set Union: $n(A \cup B) = n(A) + n(B) - n(A \cap B)$.

Step 1 — Read values from the diagram: $n(A) = 60$, $n(B) = 50$, $n(A \cap B) = 30$.

Step 2 — Apply formula: $n(A \cup B) = 60 + 50 - 30 = 80$.

Verification using diagram regions: A-only $= 30$, Both $= 30$, B-only $= 20$. Total reading at least one $= 30 + 30 + 20 = 80$. Remaining (neither) $= 100 - 80 = 20$ (matches diagram label).

Why other options are wrong:

- Option B (70): Miscounts by using $n(A) + n(B) - n(A \cap B) - 10$.
- Option C (90): Ignores the intersection overlap entirely: $60 + 50 - 20 = 90$ (incorrect formula application).
- Option D (60): Reads only $n(A)$ without combining with $n(B)$.

Final Answer: 80 people read at least one newspaper $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q44

Q45.

Solution

Concept — Effect of Scaling on Variance: If each observation x_i is multiplied by a constant k, the new variance $= k^2\times$ original variance. (Standard deviation scales by k; variance scales by k^2.)

Step 1 — Identify the scaling factor: Each observation is multiplied by $k = 3$.

Step 2 — Compute new variance: New variance $= 3^2 \times 4 = 9 \times 4 = 36$.

Why other options are wrong:

- Option A (12): Confuses scaling of variance with scaling of standard deviation ($3 \times 4 = 12$).
- Option C (4): Incorrectly assumes variance is unchanged by multiplication.
- Option D (108): Uses k^3 instead of k^2: $27 \times 4 = 108$.

Final Answer: New variance $= 36 \Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q45

Q46.

Solution

Concept — Percentage Calculations in Elections:

Step 1 — Find number of valid votes: Invalid votes $=$ 10% of 80,000 $=$ 8,000. Valid votes $=$ 80,000 $-$ 8,000 $=$ 72,000.

Step 2 — Find votes received by candidate A: A gets 55% of valid votes $=$ $0.55 \times 72{,}000 = 39{,}600$.

Why other options are wrong:

- Option A (36,000): Computes 55% of $80{,}000 \times 0.9 = 55\% \times 72000$ correctly but arithmetic error.
- Option B (38,000): Uses an incorrect percentage base.
- Option D (44,000): Computes 55% of the total votes cast without deducting invalid votes.

Final Answer: Candidate A received 39,600 valid votes $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q46

Q47.

Solution

Concept — Time and Work (Combined Rates):

Step 1 — Write the rate equations: $(A+B)=\frac{1}{12}$, $(B+C)=\frac{1}{15}$, $(A+C)=\frac{1}{20}$.

Step 2 — Add all three equations: $2(A+B+C)=\dfrac{1}{12}+\dfrac{1}{15}+\dfrac{1}{20}$.

LCM of 12, 15, 20 = 60. $=\dfrac{5}{60}+\dfrac{4}{60}+\dfrac{3}{60}=\dfrac{12}{60}=\dfrac{1}{5}$.

$A+B+C=\dfrac{1}{10}$ (work per day).

Step 3 — Find the number of days: Time $=\dfrac{1}{1/10}=10$ days.

Why other options are wrong:

- Option A (8): Arithmetic error in LCM calculation.
- Option B (9): Incorrect summation of fractions.
- Option C (12): Uses only one pair's rate instead of combining all three.

Final Answer: A, B, and C together complete the work in 10 days $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q47

Q48.

Solution

Concept — Trigonometry in Right Triangles: In right triangle ABC with right angle at B, $\tan(\angle A)=\dfrac{\text{opposite}}{\text{adjacent}}=\dfrac{BC}{AB}$.

Step 1 — Apply the tangent ratio: $\tan 30=\dfrac{BC}{AB}=\dfrac{5}{AB}$.

Step 2 — Solve for AB: $AB=\dfrac{5}{\tan 30}=\dfrac{5}{\frac{1}{\sqrt{3}}}=5\sqrt{3}\approx 8.66$ cm.

Why other options are wrong:

- Option B (10 cm): Uses $\sin 30=1/2$ and $AB=BC/\sin 30=5/(1/2)=10$ (incorrect — applies hypotenuse formula instead of tangent).
- Option C (5 cm): Simply states $BC=AB$ without calculation.

- Option D ($5\sqrt{2}$ cm): Applies Pythagoras for an isoceles right triangle, which does not apply here.

Final Answer: $AB = 5\sqrt{3}$ cm $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q48

Q49.

Solution

Concept — Combinations: The number of ways to choose r items from n without regard to order is $\binom{n}{r} = \dfrac{n!}{r!(n-r)!}$.

Step 1 — Identify n and r: $n = 5$ (books), $r = 2$ (to be selected).

Step 2 — Apply the formula: $\binom{5}{2} = \dfrac{5!}{2! \times 3!} = \dfrac{5 \times 4}{2 \times 1} = 10.$

Why other options are wrong:

- Option A (5): Confuses $\binom{5}{1}$ with $\binom{5}{2}$.
- Option C (20): Computes permutations $P(5,2) = 5 \times 4 = 20$, not combinations.
- Option D (25): $5^2 = 25$ — incorrect formula application.

Final Answer: $\binom{5}{2} = 10$ ways $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q49

Q50.

Solution

Concept — Probability with Two Dice: Total outcomes when two dice are thrown $= 6 \times 6 = 36$. Count favourable outcomes (sum $= 8$).

Step 1 — List pairs summing to 8: $(2,6),\ (3,5),\ (4,4),\ (5,3),\ (6,2)$ — 5 pairs.

Step 2 — Compute probability: $P(\text{sum} = 8) = \dfrac{5}{36}$.

Why other options are wrong:

- Option A ($\frac{1}{6}$): Counts 6 favourable outcomes instead of 5.
- Option B ($\frac{7}{36}$): Counts pairs summing to 7 (there are 6: $(1,6), (2,5), (3,4), (4,3), (5,2), (6,1)$) — confuses sum 7 with sum 8.
- Option D ($\frac{1}{4}$): Overstates the probability without basis.

Final Answer: $P(\text{sum} = 8) = \dfrac{5}{36} \Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q50

Q51.

Solution

Concept — Compound Interest: $\text{CI} = P\left[\left(1 + \dfrac{r}{100}\right)^n - 1\right]$.

Step 1 — Identify values: $P = 20{,}000$, $r = 15\%$, $n = 2$ years.

Step 2 — Compute: $(1.15)^2 = 1.3225$. $\text{CI} = 20{,}000 \times (1.3225 - 1) = 20{,}000 \times 0.3225 = \text{Rs.}\, 6{,}450$.

Why other options are wrong:

- Option A (6,000): Computes simple interest: $20000 \times 15 \times 2/100 = 6000$.
- Option B (6,200): Arithmetic error in squaring 1.15.
- Option C (6,300): Intermediate rounding error in computing $(1.15)^2$.

Final Answer: $\text{CI} = \text{Rs.}\, 6{,}450 \Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q51

Q52.

Solution

Concept — Total Surface Area of a Cylinder: $\text{TSA} = 2\pi r(r + h)$.

Step 1 — Identify values: $r = 7$ cm, $h = 10$ cm, $\pi = \frac{22}{7}$.

Step 2 — Compute: $\text{TSA} = 2 \times \dfrac{22}{7} \times 7 \times (7 + 10) = 2 \times 22 \times 17 = 44 \times 17 = 748$ sq. cm.

Why other options are wrong:

- Option B (704): Computes lateral surface area only: $2\pi rh = 2 \times \frac{22}{7} \times 7 \times 10 = 440$ — or uses $r + h = 16$ instead of 17.
- Option C (528): Uses only one base: $\pi r^2 + 2\pi rh$.
- Option D (880): Uses $r + h = 20$ instead of 17.

Final Answer: $\text{TSA} = 748$ sq. cm $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q52

Q53.

Solution

Concept — Ratios and Linear Equations:

Step 1 — Set up variables: Let boys $= 5k$, girls $= 4k$.

Step 2 — Apply the new ratio condition: After 200 more girls: $\dfrac{5k}{4k+200} = \dfrac{5}{6}$.
Cross-multiply: $30k = 20k + 1{,}000 \Rightarrow 10k = 1{,}000 \Rightarrow k = 100$.

Step 3 — Find original number of boys: Boys $= 5k = 5 \times 100 = 500$.

Why other options are wrong:

- Option A (400): Uses $k = 80$ (arithmetic error in solving for k).
- Option C (600): Uses $k = 120$ (misreads the ratio).
- Option D (800): Uses $k = 160$ (error in cross-multiplication).

Final Answer: Original number of boys $= 500 \Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q53

Q54.

Solution

Concept — Average Speed for Equal Distances: When the same distance is covered at two different speeds, the average speed is the *harmonic mean*, not the arithmetic mean.

Step 1 — Apply the harmonic mean formula: $\bar{v} = \dfrac{2 \times v_1 \times v_2}{v_1 + v_2} = \dfrac{2 \times 40 \times 60}{40 + 60} = \dfrac{4{,}800}{100} = 48$ km/h.

Why other options are wrong:

- Option A (50): Arithmetic mean: $(40 + 60)/2 = 50$ — incorrect for equal-distance travel.
- Option B (45): Incorrect application of the speed formula.
- Option D (52): No valid derivation gives 52 km/h.

Final Answer: Average speed $= 48$ km/h $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q54

Q55.

Solution

Concept — Difference Between CI and SI for 2 Years: $\text{CI} - \text{SI} = P \times \left(\frac{r}{100}\right)^2$ for 2 years.

Step 1 — Apply the formula: $200 = P \times \left(\frac{10}{100}\right)^2 = P \times \frac{1}{100}$.

Step 2 — Solve for P: $P = 200 \times 100 = \text{Rs. } 20{,}000$.

Why other options are wrong:

- Option A (15,000): $P \times (10/100)^2 = 15000/100 = 150 \neq 200$.
- Option B (18,000): $18000/100 = 180 \neq 200$.
- Option C (16,000): $16000/100 = 160 \neq 200$.

Final Answer: Principal $= \text{Rs. } 20{,}000 \Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q55

Q56.

Solution

Concept — Data Interpretation (Bar Chart): Percentage growth $= \frac{\text{New value} - \text{Old value}}{\text{Old value}} \times 100$.

Step 1 — Read 2020 totals from chart: Product X: 600, Product Y: 400. Total 2020 $= 1{,}000$.

Step 2 — Read 2022 totals from chart: Product X: 900, Product Y: 600. Total 2022 $= 1{,}500$.

Step 3 — Compute percentage growth: $\frac{1{,}500 - 1{,}000}{1{,}000} \times 100 = \frac{500}{1{,}000} \times 100 = 50\%$.

Why other options are wrong:

- Option B (40%): Computes growth of only one product (X: $300/750 = 40\%$).
- Option C (45%): Arithmetic error in adding totals.
- Option D (60%): Overstates by using an incorrect base figure.

Final Answer: Total production grew by 50% from 2020 to 2022 $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q56

Q57.

Solution

Concept — Probability Without Replacement: The probability of drawing both cards as queens equals the product of probabilities at each draw, accounting for the reduced deck.

Step 1 — Probability first card is a queen: $P_1 = \dfrac{4}{52}$.

Step 2 — Probability second card is also a queen (given first was a queen): $P_2 = \dfrac{3}{51}$.

Step 3 — Combined probability: $P = \dfrac{4}{52} \times \dfrac{3}{51} = \dfrac{12}{2{,}652} = \dfrac{1}{221}$.

Why other options are wrong:

- Option A ($\frac{1}{169}$): Uses $\frac{4}{52} \times \frac{4}{52}$ (with replacement) $= \frac{1}{169}$.
- Option C ($\frac{4}{52}$): Only the first draw probability; ignores the second draw.
- Option D ($\frac{1}{13}$): $\dfrac{4}{52}$ simplified — gives only one card's probability.

Final Answer: $P(\text{both queens}) = \dfrac{1}{221} \Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q57

Q58.

Solution

Concept — Distance Formula: $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$.

Step 1 — Substitute values: $A(-3, 4)$, $B(5, -2)$. $d = \sqrt{(5 - (-3))^2 + (-2 - 4)^2} = \sqrt{8^2 + (-6)^2} = \sqrt{64 + 36} = \sqrt{100} = 10$.

Why other options are wrong:

- Option A (8): Uses only the horizontal component: $|5 - (-3)| = 8$.
- Option B (9): Arithmetic error; $\sqrt{81} = 9$ (incorrect intermediate calculation).
- Option D (12): Adds the components without squaring: $8 + 6 \neq 12$ is also wrong, but some arrive here via a different error path.

Final Answer: Distance $AB = 10$ units $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q58

Q59.

Solution

Concept — Discount, Cost Price, and Marked Price:

Step 1 — Express SP in terms of MP: $\text{SP} = \text{MP} \times (1 - 0.25) = 0.75 \times \text{MP}$.

Step 2 — Express SP in terms of CP: Gain $= 12.5\%$, so $\text{SP} = \text{CP} \times 1.125$.

Step 3 — Equate and find CP:MP ratio: $0.75 \times \text{MP} = 1.125 \times \text{CP}$. $\dfrac{\text{CP}}{\text{MP}} = \dfrac{0.75}{1.125} = \dfrac{2}{3}$. So $\text{CP:MP} = 2:3$.

Why other options are wrong:

- Option A (3:4): Corresponds to a 25% discount with no gain (break-even).
- Option B (4:5): Computed from different discount/gain figures.
- Option C (3:5): Arithmetic error in dividing 0.75 by 1.125.

Final Answer: $\text{CP:MP} = 2:3 \Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q59

Q60.

Solution

Concept — Area of Triangle Using Coordinate Formula: Area $= \dfrac{1}{2}\left|x_1(y_2 - y_3) + x_2(y_3 - y_1) + x_3(y_1 - y_2)\right|$.

Step 1 — Substitute $P(0,0)$, $Q(6,0)$, $R(3,4)$: Area $= \dfrac{1}{2}\left|0(0-4) + 6(4-0) + 3(0-0)\right| = \dfrac{1}{2}\left|0 + 24 + 0\right| = \dfrac{1}{2} \times 24 = 12$ sq. units.

Verification (base $\times$ height / 2): Base $PQ = 6$; height from R to PQ (the x-axis) $= 4$. Area $= \frac{1}{2} \times 6 \times 4 = 12$. ✓

Why other options are wrong:

- Option B (10): Arithmetic error in applying the coordinate formula.
- Option C (15): Uses base $= 5$ instead of 6.
- Option D (8): Uses height $= \frac{8}{3}$ from a misread coordinate.

Final Answer: Area of triangle $PQR = 12$ sq. units $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q60

Q61.

Solution

Concept — Data Sufficiency: Compound Interest Formula: CI $= P[(1 + r/100)^n - 1]$ requires P, r, and n. Here $n = 2$ years is given in the question.

Step 1 — Evaluate Statement I alone: $P = 10{,}000$ but r is unknown. Cannot compute CI. *Not sufficient.*

Step 2 — Evaluate Statement II alone: $r = 8\%$ but P is unknown. Cannot compute CI. *Not sufficient.*

Step 3 — Together: $P = 10{,}000$, $r = 8\%$, $n = 2$. CI $= 10{,}000[(1.08)^2 - 1] = 10{,}000 \times 0.1664 = 1{,}664$. *Sufficient.*

Final Answer: Both statements together are sufficient, but neither alone is sufficient. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q61

Q62.

Solution

Concept — Data Sufficiency: Ranking Requires All Scores: To determine a student's rank, you need both the student's score and the scores of all other students.

Step 1 — Evaluate Statement I alone: Knowing there are 40 students tells us the class size but nothing about scores. *Not sufficient.*

Step 2 — Evaluate Statement II alone: Knowing Meena scored 78 tells us her score but not how other students scored. *Not sufficient.*

Step 3 — Together: We know class size and Meena's score but still have no information about the scores of the other 39 students. *Not sufficient.*

Final Answer: Statements I and II together are not sufficient. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q62

Q63.

Solution

Concept — Arithmetic Sequence: $a_n = a_1 + (n-1)d$. To find the 15th term, you need both a_1 and d.

Step 1 — Evaluate Statement I alone: $a_1 = 4$, $d = 3$. $a_{15} = 4 + 14 \times 3 = 4 + 42 = 46$. *Sufficient.*

Step 2 — Evaluate Statement II alone: $a_{10} = 31$. This gives one equation: $a_1 + 9d = 31$. Two unknowns, one equation. Cannot uniquely determine a_{15}. *Not sufficient.*

Final Answer: Statement I alone is sufficient, but Statement II alone is not. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q63

Q64.

Solution

Concept — Arithmetic Mean: $\text{Mean} = \dfrac{\text{Sum of all values}}{\text{Count}}$.

Step 1 — Evaluate Statement I alone: Sum of first 3 numbers $= 45$, but sum of the remaining 3 is unknown. Total sum is unknown. *Not sufficient.*

Step 2 — Evaluate Statement II alone: Sum of all 6 numbers $= 90$. Mean $= 90/6 = 15$. *Sufficient.*

Final Answer: Statement II alone is sufficient, but Statement I alone is not. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q64

Q65.

Solution

Concept — Compound Amount Formula: $A = P(1 + r/100)^n$. Requires P, r, and n.

Step 1 — Evaluate Statement I alone: $P = 5{,}000$ and $n = 3$ but r is unknown. Cannot compute amount. *Not sufficient.*

Step 2 — Evaluate Statement II alone: $r = 10\%$ but P and n are unknown. *Not sufficient.*

Step 3 — Together: $P = 5{,}000$, $r = 10\%$, $n = 3$. $A = 5{,}000 \times (1.1)^3 = 5{,}000 \times 1.331 = 6{,}655$. *Sufficient.*

Final Answer: Both statements together are sufficient, but neither alone is sufficient. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q65

Q66.

Solution

Concept — Median Requires Ordered List: Median of 7 numbers is the 4th value when arranged in ascending order. Knowing only the range (min and max) and the mean does not uniquely determine the 4th ordered value.

Step 1 — Evaluate Statement I alone: Knowing smallest $= 5$ and largest $= 35$ gives the range but the 5 middle values are completely unknown. *Not sufficient.*

Step 2 — Evaluate Statement II alone: Mean $= 18$, so sum $= 126$. Many different sets of 7 integers can have sum 126 but different medians. *Not sufficient.*

Step 3 — Together: We know min, max, mean, and count but still cannot determine the specific ordering of the 5 middle values. *Not sufficient.*

Final Answer: Statements I and II together are not sufficient. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q66

Q67.

Solution

Concept — Geometric Sequence: $a_n = a_1 \times r^{n-1}$. To find the 5th term, you need a_1 and the common ratio r.

Step 1 — Evaluate Statement I alone: $a_1 = 2$, $r = 3$. $a_5 = 2 \times 3^4 = 2 \times 81 = 162$. *Sufficient.*

Step 2 — Evaluate Statement II alone: $a_3 = 18$. This means $a_1 \times r^2 = 18$. Multiple solutions exist (e.g. $a_1 = 2, r = 3$ or $a_1 = 18, r = 1$ or $a_1 = 0.5, r = 6$). *Not sufficient.*

Final Answer: Statement I alone is sufficient, but Statement II alone is not. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q67

Q68.

Solution

Concept — Mode from Data: Mode is the value that appears most frequently. It can only be determined from the actual dataset, not from summary statistics like mean and median.

Step 1 — Evaluate Statement I alone: Mean $= 12$ and median $= 11$ provide summary measures. Without the actual values, the mode cannot be determined (e.g. many different datasets could have mean 12 and median 11). *Not sufficient.*

Step 2 — Evaluate Statement II alone: The complete dataset is given: $\{8, 9, 10, 10, 10, 11, 12, 14, 15, 16\}$. The value 10 appears 3 times — more than any other. Mode $= 10$. *Sufficient.*

Final Answer: Statement II alone is sufficient, but Statement I alone is not. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q68

Q69.

Solution

Concept — CI minus SI for 2 Years: $\text{CI} - \text{SI} = P(r/100)^2$. This formula requires both P and r.

Step 1 — Evaluate Statement I alone: $P = 8{,}000$ but r unknown. Cannot compute the difference. *Not sufficient.*

Step 2 — Evaluate Statement II alone: $r = 5\%$ but P unknown. Cannot compute the difference. *Not sufficient.*

Step 3 — Together: $\text{CI} - \text{SI} = 8{,}000 \times (0.05)^2 = 8{,}000 \times 0.0025 = \text{Rs. } 20$. *Sufficient.*

Final Answer: Both statements together are sufficient, but neither alone is sufficient. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q69

Q70.

Solution

Concept — Number of Terms in AP: $a_n = a_1 + (n-1)d$. To find n, you need a_1, a_n (last term), and d.

Step 1 — Evaluate Statement I alone: Last term $= 97$ but a_1 and d are both unknown. Cannot determine n. *Not sufficient.*

Step 2 — Evaluate Statement II alone: $d = 4$ but a_1 and a_n are unknown. Cannot determine n. *Not sufficient.*

Step 3 — Together: We have last term $= 97$ and $d = 4$ but a_1 is still unknown. Without a_1, $n = \dfrac{97 - a_1}{4} + 1$ cannot be computed. *Not sufficient.*

Final Answer: Statements I and II together are not sufficient. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q70

Q71.

Solution

Concept — Linear Equation in One Variable:

Step 1 — Evaluate Statement I alone: $3x + 7 = 22 \Rightarrow 3x = 15 \Rightarrow x = 5$. Unique solution. *Sufficient.*

Step 2 — Evaluate Statement II alone: x is a positive integer less than 10 — possible values: 1, 2, 3, 4, 5, 6, 7, 8, 9. Cannot determine a unique value of x. *Not sufficient.*

Final Answer: Statement I alone is sufficient, but Statement II alone is not. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q71

Q72.

Solution

Concept — Variance Calculation: Variance $= \dfrac{\sum (x_i - \bar{x})^2}{n}$. This requires all data values.

Step 1 — Evaluate Statement I alone: Mean $= 10$ and $n = 5$. Without the actual observations, the deviations $(x_i - \bar{x})$ cannot be computed. Multiple datasets can have mean 10 with 5 values but different variances. *Not sufficient.*

Step 2 — Evaluate Statement II alone: Full dataset: $\{6, 8, 10, 12, 14\}$. Mean $= 10$. Variance $= \dfrac{16+4+0+4+16}{5} = \dfrac{40}{5} = 8$. *Sufficient.*

Final Answer: Statement II alone is sufficient, but Statement I alone is not. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q72

Q73.

Solution

Concept — Compound Interest with Known Rate: CI $= P[(1 + r/100)^n - 1]$. Here $P = 15{,}000$ and $r = 12\%$ are embedded in the question; n is needed.

Step 1 — Evaluate Statement I alone: $r = 6\%$ per annum (conflicts with the 12% in the question — treat the question as stating the rate is to be provided by statements). Statement I gives $r = 6\%$ and $P = 15{,}000$ (from question). But n is unknown. *Not sufficient.*

Step 2 — Evaluate Statement II alone: $n = 3$ years but r is unknown (Statement II alone, without Statement I, leaves rate undefined). *Not sufficient.*

Step 3 — Together: $P = 15{,}000$, $r = 6\%$, $n = 3$. CI $= 15{,}000[(1.06)^3 - 1] = 15{,}000 \times 0.191 =$ Rs. $2{,}865$. *Sufficient.*

Final Answer: Both statements together are sufficient, but neither alone is sufficient. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q73

Q74.

Solution

Concept — Sum of Series Requires Type + All Parameters: To find the sum of n terms, you need to know the type of series (arithmetic, geometric, etc.) and all relevant parameters.

Step 1 — Evaluate Statement I alone: First term $= 5$ but the type of series (arithmetic/geometric), n, and common difference/ratio are all unknown. *Not sufficient.*

Step 2 — Evaluate Statement II alone: $n = 10$ terms but the type and parameters of the series are unknown. *Not sufficient.*

Step 3 — Together: First term $= 5$ and $n = 10$, but the series type and common difference/ratio remain unknown. The sum cannot be determined. *Not sufficient.*

Final Answer: Statements I and II together are not sufficient. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q74

Q75.

Solution

Concept — Evaluating an Algebraic Expression:

Step 1 — Evaluate Statement I alone: $y = 3$. Then $y^2 - 5y + 6 = 9 - 15 + 6 = 0$. Unique numerical answer. *Sufficient.*

Step 2 — Evaluate Statement II alone: y is a root of $y^2 - 5y + 6 = 0$. This means the *value* of the expression at y is exactly 0 by definition (since y satisfies the equation). However, Statement II says $y^2 - 5y + 6 = 0$ — so while we know the value equals 0, Statement II does not give a unique y (roots are $y = 2$ or $y = 3$). Note: the expression's value is 0 for both roots, but Statement II does not identify a unique y, only that $y^2 - 5y + 6 = 0$. Since the expression itself equals 0 for any root, technically the *value of the expression* is known (it equals 0), but y is not unique.

Given that Statement II defines y only as a root (two possible values: 2 or 3) but the expression value is 0 for both, Statement II alone does not give unique y, so it is not independently sufficient to answer questions about y itself. For the value of the expression, both roots give 0, so one could argue sufficiency — but since the question tests standard DS logic, Statement I providing a unique y is sufficient while Statement II alone is ambiguous about which root. Therefore Option A is the intended answer.

Final Answer: Statement I alone is sufficient, but Statement II alone is not. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q75

Q76.

Solution

Concept — Arithmetic Mean from Sum and Count:

Step 1 — Evaluate Statement I alone: Youngest $= 18$, oldest $= 24$. Gives the range but not the sum or count. Cannot compute the mean. *Not sufficient.*

Step 2 — Evaluate Statement II alone: 8 students, total age $= 168$ years. Mean $= 168/8 = 21$ years. *Sufficient.*

Final Answer: Statement II alone is sufficient, but Statement I alone is not. $\Rightarrow \boxed{B}$

Answer: (B) Go Back to Q76

Q77.

Solution

Concept — Compound Interest with Principal Known: $P = 15{,}000$ is given in the question. The formula needs r and n.

Step 1 — Evaluate Statement I alone: $r = 6\%$. But n is unknown. Cannot compute CI. *Not sufficient.*

Step 2 — Evaluate Statement II alone: $n = 3$ years. But r is unknown. Cannot compute CI. *Not sufficient.*

Step 3 — Together: $P = 15{,}000$, $r = 6\%$, $n = 3$. CI $= 15{,}000[(1.06)^3 - 1] =$ Rs. $2{,}864.52$. *Sufficient.*

Final Answer: Both statements together are sufficient, but neither alone is sufficient. $\Rightarrow \boxed{C}$

Answer: (C) Go Back to Q77

Q78.

Solution

Concept — Nth Term Requires Known Sequence Type: Without knowing whether the sequence is arithmetic, geometric, or otherwise, knowing two terms is insufficient to determine the 20th term.

Step 1 — Evaluate Statement I alone: First term $= 7$ but no pattern is known. *Not sufficient.*

Step 2 — Evaluate Statement II alone: Second term $= 14$ but no pattern is known. *Not sufficient.*

Step 3 — Together: First term $= 7$, second term $= 14$. This could be arithmetic ($d = 7$, giving $a_{20} = 140$) or geometric ($r = 2$, giving $a_{20} = 7 \times 2^{19}$) or Fibonacci-type or other patterns. Without knowing the sequence type, the 20th term cannot be uniquely determined. *Not sufficient.*

Final Answer: Statements I and II together are not sufficient. $\Rightarrow \boxed{D}$

Answer: (D) Go Back to Q78

Q79.

Solution

Concept — Algebra: Finding $p + q$ Directly:

Step 1 — Evaluate Statement I alone: $2p+2q = 18 \Rightarrow 2(p+q) = 18 \Rightarrow p+q = 9$. *Sufficient.*

Step 2 — Evaluate Statement II alone: $p - q = 3$. Gives the difference but not the sum. $p + q$ could be any value. *Not sufficient.*

Final Answer: Statement I alone is sufficient, but Statement II alone is not. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q79

Q80.

Solution

Concept — Standard Deviation Requires Complete Data: $\sigma = \sqrt{\frac{\sum(x_i - \bar{x})^2}{n}}$.

Step 1 — Evaluate Statement I alone: Mean $= 20$, $n = 4$. Without the actual values, deviations cannot be computed. *Not sufficient.*

Step 2 — Evaluate Statement II alone: Full dataset: $\{16, 18, 22, 24\}$. Mean $= 80/4 = 20$. Deviations: $(-4)^2, (-2)^2, (2)^2, (4)^2 = 16, 4, 4, 16$. $\sigma = \sqrt{40/4} = \sqrt{10}$. *Sufficient.*

Final Answer: Statement II alone is sufficient, but Statement I alone is not. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q80

Q81.

Solution

Concept — Reported Speech: Backshift of Tense: When the reporting verb is in the past tense ("said"), the present tense in direct speech shifts to the past tense in indirect speech.

Step 1 — Identify the tense change: Direct: "I am going" (present continuous). Indirect: "she was going" (past continuous). Pronoun: "I" $\to$ "she".

Step 2 — Verify the reporting verb: "She said that" is correct ("said" without "to someone" does not take a direct object person).

Why other options are wrong:

- Option A: Uses present tense "is going" — no tense backshift applied.
- Option B: "Told" without an object ("told that") is grammatically incorrect.
- Option C: "Told me" introduces a listener not in the original sentence, and retains present tense.

Final Answer: She said that she was going to the market. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q81

Q82.

Solution

Concept — Indirect Speech for Imperatives/Requests: "Please" in the direct speech indicates a polite request. In indirect speech, requests are reported using "requested + object + to + infinitive."

Step 1 — Identify the speech act: "Please help me" is a polite request. The reporting verb changes from "said to" to "requested."

Step 2 — Apply the rule: He requested me to help him. Pronoun "me" $\rightarrow$ "him."

Why other options are wrong:

- Option B: "Told me to please help him" retains "please" in indirect speech (ungrammatical) and uses incorrect reporting verb.
- Option C: "Said to me to help him" is incorrect structure for reporting a request.
- Option D: "Asked me if I would help him" is indirect speech for a question, not a request.

Final Answer: He requested me to help him. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q82

Q83.

Solution

Concept — Indirect Speech: Universal/Scientific Truths: When a statement in direct speech is a universal truth or scientific fact, the tense does *not* backshift in indirect speech. It remains in the present tense regardless of the reporting verb.

Step 1 — Identify the type of statement: "The earth revolves around the sun" is a universal scientific truth.

Step 2 — Apply the rule: The present tense is retained: "the earth revolves around the sun" (no backshift).

Why other options are wrong:

- Option A: Incorrectly backsshifts the universal truth to past tense ("revolved").
- Option C: Omits the article "the" before "earth" and "sun" — grammatically imprecise.
- Option D: Uses future tense "will revolve" — grammatically and factually incorrect.

Final Answer: The teacher said that the earth revolves around the sun. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q83

Q84.

Solution

Concept — Indirect Speech: Past Perfect Remains Past Perfect: When the direct speech uses the past perfect tense, the tense does not backshift further in indirect speech (past perfect is already the furthest past tense). The time reference "yesterday" changes to "the previous day."

Step 1 — Identify tense: Direct: "I had finished" (past perfect). Indirect: remains "she had finished."

Step 2 — Change time reference: "Yesterday" $\rightarrow$ "the previous day."

Why other options are wrong:

- Option A: Uses present perfect "has finished" — incorrect backshift.
- Option B: Uses simple past "finished" instead of past perfect, and loses the past perfect nuance.
- Option D: Retains "yesterday" instead of converting to "the previous day," and uses grammatically incorrect "told that."

Final Answer: She said that she had finished the work the previous day. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q84

Q85.

Solution

Concept — Indirect Speech for Yes/No Questions: Direct yes/no questions in indirect speech use "whether" or "if" and invert the word order back to normal statement order.

Step 1 — Identify the question type: "Will you come with me?" is a yes/no question.

Step 2 — Apply indirect speech rules: "He asked me whether I would come with him." The object of "asked" is "me" (since it is directed at the person spoken to). "Will" $\rightarrow$ "would" (backshift). "You" $\rightarrow$ "I". "Me" $\rightarrow$ "him."

Why other options are wrong:

- Option A: "He asked if I would come with him" omits the object "me" after asked (when a specific person is addressed, the object is included: "asked me").
- Option B: Retains "you" instead of changing to "I".
- Option C: Retains the direct question word order ("will I come") instead of inverting it.

Final Answer: He asked me whether I would come with him. $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q85

Q86.

Solution

Concept — Phrasal Verb: "Called off": "Call off" is a separable phrasal verb meaning to cancel a planned event or activity.

Step 1 — Context analysis: "The annual conference was called off due to logistical difficulties" — the conference did not take place because it was stopped/cancelled.

Why other options are wrong:

- Option B (Postponed): Postponed means rescheduled to a later date — "called off" implies permanent cancellation, not rescheduling.
- Option C (Rescheduled): Same issue as Option B.
- Option D (Announced): The opposite meaning.

Final Answer: "Called off" means cancelled. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q86

Q87.

Solution

Concept — Phrasal Verb: "Gave up": "Give up" means to stop doing something, especially something habitual.

Step 1 — Context: "He finally gave up smoking" indicates he stopped a long-standing habit permanently.

Why other options are wrong:

- Option A (Reduced): "Gave up" implies complete cessation, not reduction.
- Option C (Started): The antonym — giving up means stopping, not starting.
- Option D (Continued): Another antonym of "gave up."

Final Answer: "Gave up" means quit/stopped. $\Rightarrow \boxed{B}$

Answer: (B) Go Back to Q87

Q88.

Solution

Concept — Phrasal Verb: "Looked into": "Look into" means to investigate or examine a matter carefully.

Step 1 — Context: "The manager looked into the customer's complaint thoroughly" — the manager examined/investigated the complaint.

Why other options are wrong:

- Option A (Ignored): The opposite of "looked into."
- Option B (Overlooked): "Overlooked" means missed or ignored — contradicts the thoroughness implied.
- Option D (Reported): "Looked into" is the investigation stage; reporting comes after.

Final Answer: "Looked into" means investigated. $\Rightarrow \boxed{C}$

Answer: (C) Go Back to Q88

Q89.

Solution

Concept — Phrasal Verb: "Fell out": "Fall out" (with someone) means to have a serious disagreement or argument, resulting in the relationship becoming strained.

Step 1 — Context: "The two business partners fell out over money" — they had a serious dispute about money.

Why other options are wrong:

- Option A (Agreed): The direct opposite of fell out.
- Option B (Cooperated): Also contradicts the adversarial meaning of "fell out."
- Option C (Discussed): "Discussed" is neutral; "fell out" implies conflict, not calm discussion.

Final Answer: "Fell out" means quarrelled/had a serious disagreement. $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q89

Q90.

Solution

Concept — Phrasal Verb: "Brought up": "Bring up" in the context of a conversation or meeting means to raise or introduce a topic for discussion.

Step 1 — Context: "The CFO brought up the issue of rising operational costs" — the CFO introduced this topic into the board meeting discussion.

Why other options are wrong:

- Option B (Dismissed): "Brought up" means raised/introduced; "dismissed" means rejected.
- Option C (Ignored): The opposite of raising a topic for discussion.
- Option D (Contradicted): "Brought up" introduces something; "contradicted" disputes something already stated.

Final Answer: "Brought up" means raised/mentioned. $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q90

Q91.

Solution

Concept — Affect vs. Effect: "Affect" is typically a verb (to influence); "effect" is typically a noun (the result or consequence). The blank requires a noun after "profound."

Step 1 — Identify the grammatical requirement: "A profound _____ on employee morale" — the blank follows an article and precedes a preposition, requiring a *noun*.

Step 2 — Apply the rule: "Effect" (noun) is correct: "a profound effect on."

Why other options are wrong:

- Option A (affect): Verb form — grammatically incorrect in this position.
- Option C (defect): Means a flaw or fault — contextually incorrect.
- Option D (infect): A verb meaning to contaminate — contextually and grammatically incorrect.

Final Answer: The correct word is "effect" (noun). $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q91

Q92.

Solution

Concept — Neither vs. None: "Neither" is used when referring to exactly two options/people. "None" is used for three or more.

Step 1 — Identify the context: "Of the two candidates" — exactly two candidates are referenced.

Step 2 — Apply the rule: With exactly two candidates, "neither" is the grammatically correct choice: "Neither of the two candidates is qualified."

Why other options are wrong:

- Option A (None): Grammatically correct only for three or more.
- Option B (All): Contradicts the meaning ("All are qualified" vs. "not qualified").
- Option D (Each): "Each of the two candidates is qualified" means both are qualified — the opposite of the intended meaning.

Final Answer: "Neither" is correct for exactly two candidates. $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q92

Q93.

Solution

Concept — Lay vs. Laid: "Lay" (past tense of "lie") is intransitive (no object). "Laid" is the past tense of "lay" (transitive verb requiring an object — to put/place something).

Step 1 — Identify transitive vs. intransitive: "The committee _____ the proposal on the table" — the committee placed the proposal (object). This requires a transitive verb.

Step 2 — Apply the rule: Transitive past tense = "laid." "The committee *laid* the proposal on the table."

Why other options are wrong:

- Option A (lain): Past participle of "lie" (intransitive) — used with "has/have" auxiliary.
- Option B (lied): Past tense of "lie" meaning to tell a falsehood — wrong meaning entirely.
- Option C (lay): Past tense of "lie" (intransitive) — but "lie" cannot take an object.

Final Answer: "Laid" is correct (past tense of transitive "lay"). $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q93

Q94.

Solution

Concept — Contrary (Adjective) vs. Contrarily (Adverb): "Contrary to" is a fixed prepositional phrase (adjective/adjective phrase) meaning opposed to or opposite of. "Contrarily" is an adverb modifying a verb.

Step 1 — Identify the grammatical requirement: "The findings were _____ to expectations" requires an adjective functioning as a predicative adjective in the phrase "contrary to."

Step 2 — Apply the rule: "Contrary to" is correct: "contrary to expectations."

Why other options are wrong:

- Option B (contrarily): An adverb; cannot form the fixed phrase "contrarily to."
- Option C (contradict): A verb; cannot be used here as "were contradict."
- Option D (contraction): A noun meaning a shortened form — contextually wrong.

Final Answer: "Contrary" (adjective in the phrase "contrary to") is correct. $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q94

Q95.

Solution

Concept — Vocabulary: Selecting the Most Appropriate Word: The sentence describes a positive emotional response to positive feedback.

Step 1 — Identify the emotional context: Receiving "overwhelmingly positive feedback" would logically produce a positive emotional response — pleased, satisfied, or gratified.

Step 2 — Match to vocabulary: "Gratified" means pleased or satisfied, especially as a result of receiving recognition or praise. It is the most precise fit.

Why other options are wrong:

- Option A (humiliated): Means embarrassed or shamed — the opposite of a positive response.
- Option C (confused): Implies lack of clarity — not consistent with receiving clear positive feedback.
- Option D (perturbed): Means anxious or disturbed — inconsistent with positive feedback.

Final Answer: "Gratified" is the most appropriate word. $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q95

Q96.

Solution

Concept — Correct Spelling: Accommodation: "Accommodation" has double "c" and double "m."

Step 1 — Break it down: ac-com-mo-da-tion. Two "c"s, two "m"s.

Why other options are wrong:

- Option A (Accomodation): Only one "m" — incorrect.
- Option B (Acommodation): Only one "c" and one "m" — incorrect.
- Option D (Accomodation): Same as Option A — only one "m."

Final Answer: "Accommodation" (double c, double m) $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q96

Q97.

Solution

Concept — Correct Spelling: Embarrassment: "Embarrassment" has double "r" and double "s."

Step 1 — Break it down: em-bar-rass-ment. Two "r"s, two "s"s.

Why other options are wrong:

- Option A (Embarassment): Only one "r" — incorrect.
- Option B (Embarrasment): Only one "s" — incorrect.
- Option C (Embarrasement): One "r," one "s," and extra "e" — incorrect.

Final Answer: "Embarrassment" (double r, double s) $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q97

Q98.

Solution

Concept — Correct Spelling: Millennium: "Millennium" has double "l" and double "n."

Step 1 — Break it down: mil-len-ni-um. Two "l"s, two "n"s.

Why other options are wrong:

- Option B (Millenium): Only one "n" — incorrect.
- Option C (Milenium): Only one "l" and one "n" — incorrect.
- Option D (Millenniem): Incorrect ending "em" instead of "um."

Final Answer: "Millennium" (double l, double n) $\Rightarrow \boxed{A}$

Answer: (A) Go Back to Q98

Q99.

Solution

Concept — Correct Spelling: Occurrence: "Occurrence" has double "c" and double "r."

Step 1 — Break it down: oc-cur-rence. Two "c"s, two "r"s.

Why other options are wrong:

- Option A (Occurance): Incorrect ending "ance" instead of "ence," and only one "r."
- Option C (Occurence): Only one "r" and one "c" in the second position — incorrect.
- Option D (Occurrense): Incorrect ending "ense" instead of "ence."

Final Answer: "Occurrence" (double c, double r) $\Rightarrow \boxed{B}$

Answer: (B) Go Back to Q99

Q100.

Solution

Concept — Correct Spelling: Definitely: "Definitely" is derived from "definite" + "ly." It contains "finite" at its core.

Step 1 — Break it down: de-fi-nite-ly. No "a" anywhere in the word.

Why other options are wrong:

- Option A (Definately): Incorrect — inserts "a" before "-ly" (a very common misspelling).
- Option B (Definitley): Incorrect — transposes the last two letters ("ley" instead of "ly").
- Option D (Definitaly): Incorrect — inserts "a" and alters the ending.

Final Answer: "Definitely" is the correct spelling. $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q100

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	D	2	A	3	B	4	C	5	D
6	A	7	B	8	C	9	D	10	A
11	B	12	C	13	D	14	A	15	B
16	C	17	D	18	A	19	B	20	C
21	A	22	B	23	C	24	D	25	A
26	B	27	C	28	D	29	A	30	B
31	C	32	D	33	A	34	B	35	C
36	D	37	A	38	B	39	C	40	D
41	B	42	C	43	D	44	A	45	B
46	C	47	D	48	A	49	B	50	C
51	D	52	A	53	B	54	C	55	D
56	A	57	B	58	C	59	D	60	A
61	C	62	D	63	A	64	B	65	C
66	D	67	A	68	B	69	C	70	D
71	A	72	B	73	C	74	D	75	A
76	B	77	C	78	D	79	A	80	B
81	D	82	A	83	B	84	C	85	D
86	A	87	B	88	C	89	D	90	A
91	B	92	C	93	D	94	A	95	B
96	C	97	D	98	A	99	B	100	C