SBI PO Prelims Memory Based Paper (Held On: 4 August 2025 Shift 1) (Previous Year Paper)

SBI Probationary Officer (PO) • 2025 • 100 questions • 60 minutes • Answer key and solutions

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ENGLISH LANGUAGE

Directions

Directions: Given below is a set of six sentences that, when properly sequenced, form a coherent paragraph. Arrange the sentences in the correct sequence and answer the questions that follow. The third sentence, given in bold, is fixed.

A. The transformative power of artificial intelligence (AI) is reshaping industries, leading to a profound impact on employment patterns.

B. By investing in education and training programs, society can harness AI's potential while mitigating its disruptive effects.

C. While automation can lead to the displacement of certain job categories, it also creates new opportunities and transforms existing ones in ways that could benefit the workforce.

D. However, adapting to these technological changes requires significant effort from both employees and employers to reskill and upskill the workforce.

E. It is essential to understand that technology's impact on jobs is not a zero-sum game.

F. Policymakers and business leaders must collaborate to create supportive environments that facilitate this transition.

Q1. Which of the following should be the FIRST sentence after rearrangement?

- **(a)** D
- **(b)** B
- **(c)** F
- **(d)** A
- **(e)** E

Q2. Which of the following should be the SECOND sentence after rearrangement?

- **(a)** F
- **(b)** B
- **(c)** E
- **(d)** D
- **(e)** A

Q3. Which of the following should be the FOURTH sentence after rearrangement?

- **(a)** E
- **(b)** A
- **(c)** D
- **(d)** F
- **(e)** B

Q4. Which of the following should be the SIXTH sentence after rearrangement?

- **(a)** E
- **(b)** A
- **(c)** B
- **(d)** D

(e) F

Q5. Which of the following should be the FIFTH sentence after rearrangement?

(a) E
(b) B
(c) F
(d) A
(e) D

Q6. Direction: Evaluate the following word, accompanied by three sentences containing it. Determine the sentence(s) that accurately convey the meaning of the given word.

Counsel

A. She sought the counsel of a professional therapist to help deal with her anxiety issues.

B. The new policy counsels employees to take regular breaks for better productivity.

C. The jury had to deliberate for hours before giving their final counsel.

(a) Only A
(b) Both A & B
(c) Only C
(d) All A, B & C
(e) None of these

Q7. Direction: Evaluate the following word, accompanied by three sentences containing it. Determine the sentence(s) that accurately convey the meaning of the given word.

Gait

A. His gait was slow and laboured after his knee surgery.

B. She was praised for her professional gait in the courtroom.

C. They installed a new gait at the entrance of the park.

(a) Only A
(b) Both A & B
(c) Only C
(d) All A, B & C
(e) None of these

Directions

Directions: Read the given passage carefully to answer the following questions. Each question will have five alternatives as its answer. Choose the correct option as your answer.

Angola, located on the southwestern coast of Africa, has faced numerous economic challenges over the years. Once a nation with significant oil reserves, Angola's economy has heavily depended on oil exports. However, fluctuating oil prices and mismanagement have stalled economic growth, leading to a grim budgetary status that hampers national development. In recent years, efforts have been undertaken to diversify Angola's economy and improve the living standards of its citizens. A critical focus has been on enhancing education and healthcare—two pivotal sectors that are fundamental for long-term development. Investments in these areas are seen as essential to breaking the cycle of poverty and setting the stage for sustainable growth. The Angolan government has allocated increased funds towards education, aiming to revamp its educational infrastructure and improve the quality of teaching. The strategic plans involve constructing new schools, rehabilitating existing ones, and enhancing teacher training programmes. Despite these efforts, numerous schools continue to face severe shortages of essential resources, such as textbooks, technological tools, and trained educators. Many rural areas, in particular, remain underserved, with children often having to travel long distances to attend school. This lack of adequate facilities and staff has hampered the progress of many students, contributing to a grim outlook on the nation's educational standards. Improving educational outcomes is not just about infrastructure but also about addressing systemic issues such as teacher absenteeism, low salaries, and lack of continuous professional development. The educational reforms aim to create a more inclusive and quality education system, but these goals remain distant without significant improvements in resource allocation and governance. Healthcare, another priority, has seen some improvements as well but still faces significant hurdles. Hospitals and clinics, particularly in rural areas, suffer from a shortage of medical supplies and qualified personnel. Chronic underfunding has led to dilapidated facilities and insufficient medical equipment, making it challenging for healthcare providers to deliver quality services. These issues have stalled the healthcare system's ability to provide effective and timely care, exacerbating the problem of preventable diseases and ailments among the population. In urban areas, although the situation may be somewhat better, the influx of rural migrants seeking better

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care puts additional strain on already overburdened resources. The budgetary allocation for these sectors indicates the government's recognition of their importance, yet the grim reality remains that without substantial and sustained improvements, both the education and healthcare systems risk remaining inadequate for Angola's citizens. The economic constraints have further complicated these efforts, as limited financial resources necessitate careful prioritisation and efficient use of funds. International aid and partnerships with non-governmental organisations have provided some relief, but long-term solutions require internal stability and robust economic planning. For healthcare, the emphasis needs to be on preventive care and public health campaigns that can reduce the incidence of disease. Investing in healthcare education and training for medical professionals is crucial for building a _____ health system. Moreover, aligning healthcare reforms with international best practices and ensuring equitable access to healthcare services across all regions can improve outcomes significantly. In summary, while Angola's efforts to improve education and healthcare are commendable, the stalled economic growth and grim budgetary conditions present significant challenges. Only through continued investment, transparent governance, and effective implementation of policies can Angola hope to overcome these obstacles and achieve better living standards for its people. Addressing these issues is not just about meeting immediate needs but about laying the foundation for a prosperous and stable future.

Q8. According to the passage, which area has seen a focus for economic diversification in Angola?

(a) Technology
(b) Tourism
(c) Education
(d) Agriculture
(e) Infrastructure

Q9. The passage states that Angola's healthcare improvement efforts remain hindered by which of the following issues?

(a) Limited international aid
(b) Inadequate medical equipment
(c) High cost of pharmaceuticals
(d) Overpopulation in urban areas
(e) Lack of technological advancements

Q10. According to the passage, what is one of the systemic issues in Angola's education sector that needs to be addressed?

(a) High tuition fees
(b) Teacher absenteeism
(c) Curriculum changes
(d) Parental involvement
(e) School uniform policies

Q11. Which factor has not been cited as a challenge to Angola's education sector according to the passage?

(a) Shortage of textbooks
(b) Inadequate technological tools
(c) Poor school attendance by students
(d) Undertrained educators
(e) Long travel distances for rural children

Q12. According to the passage, which of the given statements is correct?

A) The Angolan government has decreased funds towards education.

B) Many rural areas in Angola remain underserved in terms of educational facilities.

C) Significant improvements in resource allocation and governance are needed for educational reforms to be successful.

(a) Only A
(b) Only B
(c) Only C
(d) B and C
(e) A and C

Q13. According to the passage, which of the given statements is incorrect?

A) Chronic underfunding has led to insufficient medical equipment in hospitals and clinics.

B) Preventive care and public health campaigns can reduce the incidence of disease.

C) Urban migration has alleviated the strain on healthcare resources.

(a) Only A
(b) Only B
(c) Only C
(d) A and C
(e) B and C

Q14. What will fit in the blank taken from the passage: "Investing in healthcare education and training for medical professionals is crucial for building a _____ health system."

(a) resilient
(b) profitable
(c) minimalist
(d) centralized
(e) revolutionary

Q15. Which of the following words is similar in meaning to "stall" in the context of the passage?

(a) accelerate
(b) hinder
(c) approve
(d) improve
(e) manage

Q16. Which of the following words is similar in meaning to "grim" in the context of the passage?

(a) promising
(b) hopeful
(c) bleak
(d) joyful
(e) uplifting

Q17. A sentence is given with three words marked as (A), (B), and (C). These words may or may not be placed in their places. Four options with different arrangements of these words are given. Mark the option with the correct arrangement as the answer. If there is no change required, mark 'No rearrangement required' as your answer.

On Earth, sunlight is scattered and obvious (A) through Earth's atmosphere, and is filtered (B) as daylight when the Sun is above the horizon(C).

(a) BAC
(b) BCA
(c) CAB
(d) ACB
(e) No rearrangement required

Q18. A sentence is given with three words marked as (A), (B), and (C). These words may or may not be placed in their places. Four options with different arrangements of these words are given. Mark the option with the correct arrangement as the answer. If there is no change required, mark 'No rearrangement required' as your answer.

The next rising (A) of retail evolution in India will be phase (B) by the led (C) adoption of digital platforms by consumers.

(a) CAB
(b) CBA
(c) ACB
(d) BCA
(e) No rearrangement required

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Q19. A sentence is given with three words marked as (A), (B), and (C). These words may or may not be placed in their places. Four options with different arrangements of these words are given. Mark the option with the correct arrangement as the answer. If there is no change required, mark 'No rearrangement required' as your answer.

Power utilities and energy companies are turning (A) to public power trading on account of better prices and delivery (B) efficiency in increased(C) schedules.

(a) BAC
(b) ACB
(c) BCA
(d) CAB
(e) No rearrangement required

Q20. Directions: In the following question, the given table has two columns (I and II) containing three phrases each. The phrases are labelled A, B, and C in the first column and P, Q, and R in the second column. A phrase from the first column may or may not connect with a phrase in the second column to make a grammatically and contextually meaningful sentence. Identify the correct option given below that gives the correct sequence in which one or more sentences can be formed. If none of the options make a meaningful sentence, mark 'None of these' as your answer.

Column I	Column II
(A) Besides the obligations laid down in the Treaty,	(P) the Council requires openness.
(B) You are still young and beautiful in my calendar and the extra year seems	(Q) with the rest of the developing world.
(C) The region is relatively well off in comparison	(R) in stating a preference, she chooses her career.

(a) B-Q
(b) A-R
(c) B-R and C-P
(d) C-Q and A-P
(e) None of these

Q21. Directions: Select the phrase from the options below that should replace the underlined phrase in the sentence to make it grammatically and contextually correct. If the sentence is already correct, select 'No correction required' as your answer.

Agni, the flagship indigenous artillery missile, appear to be governed even before its induction and deployment in the field.

(a) appeared to be
(b) appears to be
(c) appearing to be
(d) has appeared to be
(e) No correction required

Q22. Directions: Select the phrase from the options below that should replace the underline phrase in the sentence to make it grammatically and contextually correct. If the sentence is already correct, select 'No correction required' as your answer.

He appreciates listening to jazz music, playing basketball, and hang out with friends on weekends.

(a) will hang out with friends
(b) hanging out with friends
(c) hang out with friends
(d) hangs out with friends
(e) no correction required

Directions

Direction: Fill in the blanks in the passage below, with the word from among the options given for each blank labelled (A) to (E). Choose the word that fits in each blank most appropriately in the context of the passage.

Never was any generation of men intent upon the pursuit of well-being more _____(A) placed to attain it, who yet, with seeming

deliberation, took the opposite course towards chaos instead of ____(B), towards breakdown instead of stability, towards death, destruction and darkness instead of life, creativity, and light. The current decade has ceased to belong to the category of the lost decades in point of economics, but not in point of national leadership and social cohesion. The three facts that never cease to amaze me are the persistent ____(C) of governments in charge of one of the most ____(D)nations on earth, the abysmal depths to which the nation with the finest spiritual ____(E) has sunk, and the phenomenal capacity of endurance of our simple, honest downtrodden poor. One is driven to believe the _____(F) of ancient Indian culture that the law of karma operates not only for individuals but also collectively for groups, nations, and races, in which individuals necessarily participate.

Q23. Which of the following fits in the blank labelled (A)?

(a) Precipitously
(b) Advantageously
(c) Unambiguously
(d) Gingerly
(e) Waywardly

Q24. Which of the following fits in the blank labelled (B)?

(a) Disposition
(b) Disarray
(c) Disruption
(d) Averseness
(e) Insouciance

Q25. Which of the following fits in the blank labelled (C)?

(a) Potency
(b) Bungling
(c) Prowess
(d) Sinew
(e) Incompetence

Q26. Which of the following fits in the blank labelled (D)?

(a) Ingenious
(b) Blemished
(c) Nonplussed
(d) Mutinous
(e) Aberrant

Q27. Which of the following fits in the blank labelled (E)?

(a) Ancestry
(b) Heredity
(c) Abstruse
(d) Heritage
(e) Temerity

Q28. Which of the following fits in the blank labelled (F)?

(a) Tenet
(b) Memoir
(c) Sacrilege
(d) Maladroit
(e) Paragon

Q29. Direction: The given sentence is divided into four parts: A, B, C, and D. Choose the part that contains an error as your answer. If the sentence is error-free, mark E i.e. No error as your answer.

I don't know about them but (A)/ I have seen that a number of people (B)/ was present in the recent (C)/ rallies in Uttar Pradesh. (D)/ No error (E)

(a) A
(b) B

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(c) C
(d) D
(e) E

Q30. Direction: The given sentence is divided into four parts; A, B, C and D. Choose the part that contains an error as your answer. If the sentence is error-free, mark i.e. No error as your answer.

Sheila was always (A) / the best student in the class (B) / often scoring higher marks (C) / than anyone. (D) / No error (E)

(a) A
(b) B
(c) C
(d) D
(e) E

Q31. Direction: The given sentence is divided into four parts; A, B, C and D. Choose the part that contains an error as your answer. If the sentence is error-free, mark i.e. No error as your answer.

The marketing team (A) / have been falling (B) / further away from its goals (C) / since its internal shuffle of posts. (D) / No error (E)

(a) A
(b) B
(c) C
(d) D
(e) E

Q32. Direction: The given sentence is divided into four parts: A, B, C, and D. Choose the part that contains an error as your answer. If the sentence is error-free, mark E i.e. No error as your answer.

We chose our objects and our (A)/ places of memory, or, rather, the (B)/ spirit of the times decides what (C)/ is worth remembering. (D)/ No error (E)

(a) A
(b) B
(c) C
(d) D
(e) E

Q33. Direction: The given sentence is divided into four parts: A, B, C, and D. Choose the part that contains an error as your answer. If the sentence is error-free, mark E i.e. No error as your answer.

Global warming is making (A)/ threatening changes in our world, (B)/ and we should prefer green energy (C)/ than conventional sources of energy. (D)/ No Error(E)

(a) A
(b) B
(c) C
(d) D
(e) E

Q34. Direction: The given sentence is divided into four parts: A, B, C, and D. Choose the part that contains an error as your answer. If the sentence is error-free, mark E i.e. No error as your answer.

Mukesh told to Sunaina (A)/ that he would not buy the (B)/ new car and wait till the next few (C)/ months so that he would have more options. (D)/ No Error (E)

(a) A
(b) B
(c) C
(d) D
(e) E

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Q35. Directions: In the following question, a sentence is given with four words marked as (A), (B), (C), and (D). These words may or may not be placed in the correct order. Four options with different arrangements of these words have been provided. Mark the option with the correct arrangement as the answer. If no rearrangement is required, mark option (5) as your answer.

A demanding(A) boss expects their workers to efficiency(B) at top levels, though this very rarely(C) happens when the boss themselves isn't present to ensure perform(D).

(a) A-D
(b) B-C
(c) C-A
(d) D-B
(e) No change required

Q36. Directions: In the following question, a sentence is given with four words marked as (A), (B), (C), and (D). These words may or may not be placed in the correct order. Four options with different arrangements of these words have been provided. Mark the option with the correct arrangement as the answer. If no rearrangement is required, mark option (5) as your answer.

The future(A) woman wanted to get a psychic(B) reading even though she didn't believe(C) that people could see the skeptical(D).

(a) D-B
(b) A-C
(c) A-D
(d) B-C
(e) No change required

Q37. Directions: In the following question, a sentence is given with four words marked as (A), (B), (C), and (D). These words may or may not be placed in the correct order. Four options with different arrangements of these words have been provided. Mark the option with the correct arrangement as the answer. If no rearrangement is required, mark option (5) as your answer.

Despite(A) coming in at third place, he gratuitous(B) in some indulged(C) self-glorification, to the dismay(D) of all his friends.

(a) B-C
(b) D-A
(c) C-D
(d) A-B
(e) No change required

Q38. Directions: The question below has two blanks, each blank indicating that something has been omitted. Choose the set of words for each blank that best fit the meaning of the sentence as a whole.

Since nurses are _____ on their feet, they find flat shoes _____ to heels.

(a) associate, intermittent
(b) constantly, preferable
(c) concern, routine
(d) never, consistent
(e) sporadically, repeatedly

Q39. Directions: The question below has two blanks, each blank indicating that something has been omitted. Choose the set of words for each blank that best fit the meaning of the sentence as a whole.

Harish enrolled in a class that teaches _____ so that he can _____ his garden.

(a) adhocracy, abandon
(b) hierarchy, dump
(c) destruct, patronize
(d) horticulture, cultivate
(e) hurt, contend

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Q40. Directions: The question below has two blanks, each blank indicating that something has been omitted. Choose the set of words for each blank that best fit the meaning of the sentence as a whole.

Until more _____ is found, the police cannot _____ the killer's motive.

(a) contradict, conjecture
(b) disclaim, illustrate
(c) evidence, verify
(d) challenge, exhibit
(e) profess, witty

QUANTITATIVE APTITUDE

Directions

Directions: Study the following information carefully and answer the questions.

A survey was conducted among 100 people to analyze their preferences for three beverages: Coffee (C), Milk (M), and Tea (T). The number of people who like only Tea is 10. The number of people who like all three beverages is 16. The number of people who like only Coffee is 20% more than those who like only Tea. The number of people who like only Milk is equal to the number who like both Coffee and Tea but not Milk. The number of people who like both Milk and Tea but not Coffee is half of those who like both Coffee and Milk but not Tea, which is 24.

Q41. If each person who likes exactly one beverage pays Rs. 15, those who like exactly two pay Rs. 25, and those who like all three pay Rs. 35, what is the total collection?

(a) Rs. 2370
(b) Rs. 2450
(c) Rs. 2310
(d) Rs. 2630
(e) None of these

Q42. What is the percentage of people who like Tea?

(a) 51%
(b) 60%
(c) 66%
(d) 70%
(e) None of these

Q43. The number of people who like at most two beverages is what percentage of the total respondents?

(a) 92%
(b) 83%
(c) 84%
(d) 85%
(e) None of these

Q44. Find the ratio of people who like only Coffee and only Milk to those who like both Milk and Tea but not Coffee.

(a) 35:33
(b) 34:31
(c) 17:12
(d) 25:12
(e) 25:22

Q45. What is the difference between the number of people who like exactly two beverages and those who like only one beverage?

(a) 14
(b) 17
(c) 8
(d) 9

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(e) 16

Q46. Mr. Sharma spends 12% of his monthly salary on education and ×% on groceries. If the amount spent on education is Rs. 7,200, and his total monthly e×penditure (including education and groceries) is 60% of his salary, what is the value of ×?

(a) 48%
(b) 55%
(c) 30%
(d) 34%
(e) None of these

Q47. A and B together can complete a piece of work in 2t days. A alone can complete the same work in 5 days, and B alone can complete it in 5t days. In how many days will they complete the work together?

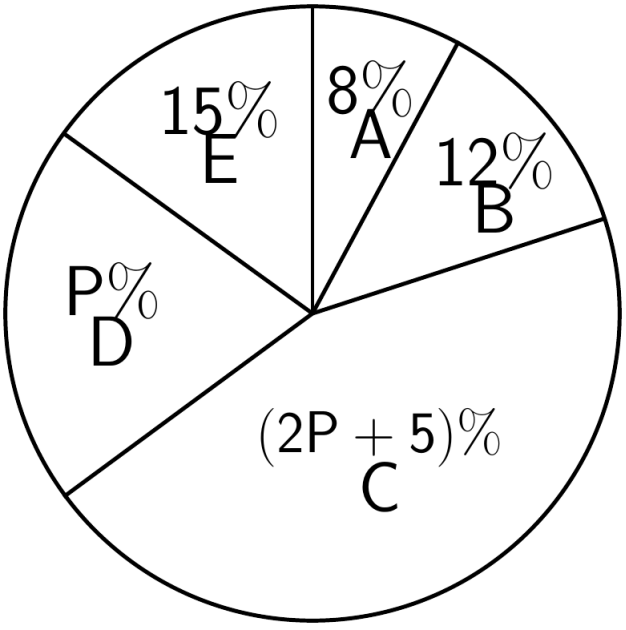
(a) 1 day
(b) 2 days
(c) 3 days
(d) 4 days
(e) 5 days

Q48. A container has 80 liters of milk. A certain amount of the mixture is removed and replaced with water. This process is repeated once more. After the two replacements, the concentration of milk in the mixture becomes 96.04%. What quantity of the mixture was replaced each time?

(a) 2.4 litres
(b) 1.6 litres
(c) 2.1 litres
(d) 1.8 litres
(e) None of these

Directions

The pie chart shows the percentage distribution of total number manufactured in five different factories [A, B, C, D and E]. Total number of items manufactured by all five factories is 1200.



Q49. In Factory C, 20% of the items were defective, while in Factory D, 25% fewer defective items were produced than in Factory C. In Factory B, the number of defective items was [2/9]th the sum of defective items in C and D together. What is the total of non-defective item in factory B, C and D together?

(a) 756
(b) 693

(c) 558
(d) 783
(e) 963

Q50. Find the ratio of items manufactured by Factory A and E combined to those manufactured by B and D combined?
(a) 23:32
(b) 17:19
(c) 23:29
(d) 28:39
(e) 37:47

Q51. Factory A and Factory D decided to collaborate. 25% of items manufactured in D were sent to A. Then, [P + 5] % of the total items now with A were declared as premium items. How many premium items are there in A?
(a) P + 19
(b) P + 11
(c) P + 13
(d) P + 17
(e) P + 22

Q52. Each item manufactured in Factory C Rs.8, in D Rs. 20, and in E Rs. 25. However, due to defects, 20% of C's, 12.5% of D's, and 20% of E's items do not generate any profit. Total profit of all three companies together?
(a) 11256
(b) 10256
(c) 13265
(d) 21456
(e) 11255

Q53. If 10% of items from Factory C and 11.11% from E were defective, what is total defective count in factory C and E together?
(a) 81
(b) 85
(c) 74
(d) 77
(e) 87

Q54. In the given questions, two equations numbered I and II are given. You have to solve both the equations and mark the appropriate answer.

I. $6x^2 – 72x + 216 = 0$

II. $y^2 – 18y + 81 = 0$

(a) $x > y$
(b) $x \geq y$
(c) $x < y$
(d) $x \leq y$
(e) $x = y$ or the relationship cannot be established.

Q55. In the given question, two equations numbered I and II are given. Solve both the equations and mark the appropriate answer.

I. $3x^2 + 16x + 13 = 0$

II. $y^2 + 9y – 36 = 0$

(a) $x > y$
(b) $x \geq y$
(c) $x < y$
(d) $x \leq y$
(e) $x = y$ or the relation cannot be determined

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Q56. In the given questions, two equations numbered I and II are given. You have to solve both the equations and mark the appropriate answer

I. $x^2 - 14x + 33 = 0$

II. $y^2 - 20y + 99 = 0$

(a) $x > y$
(b) $x \geq y$
(c) $x < y$
(d) $x \leq y$
(e) $x = y$ or the relationship cannot be established

Q57. Suman Bought an earpiece of Rs. 100 and sold that Earpiece to Rachna at a profit of 10%, Rachna sold it to Deepti at a profit of 20%. Deepti in the need of urgent money sold it to Suman at a loss of 36.36%. Find the total profit earned by Suman in the entire transaction.

(a) Rs. 26
(b) Rs. 48
(c) Rs. 10
(d) Rs. 58
(e) Rs. 36

Q58. The sum of ages of father and a son is 86 years. If 19 years ago father's age was five times the age of his son. If the son got married to a girl who is 6 years younger than him, then what will be the ratio of his age and his wife's age?

(a) 7 : 9
(b) 5 : 6
(c) 9 : 7
(d) 6 : 5
(e) 8 : 9

Q59. A sphere has a total surface area of 2464 m^2. Find the cost of painting the outer curved surface of right circular cone which has a radius of 7 meters and the height that is 4 meters less than the diameter of the sphere at the rate of Rs. 12 per m^2.

(a) Rs. 5940
(b) Rs. 6600
(c) Rs. 7260
(d) Rs. 7920
(e) Rs. 8580

Q60. Two friends Amit and Rahul invested an equal sum of Rs. P in a scheme. If simple interest of 9% and 6% respectively was offered to them at the end of 2 years the difference between the total amount received by Amit and Rahul was Rs. 2166, then find out the value of P.

(a) 36600
(b) 36100
(c) 24000
(d) 54000
(e) 18500

Q61. The average of a batsman before a tournament was 38. In the 7 matches of the tournament, he scored 548 runs. Find the total number of matches played by him till date, if his new average after the tournament is 41.76.

(a) 68
(b) 71
(c) 75
(d) 78
(e) 70

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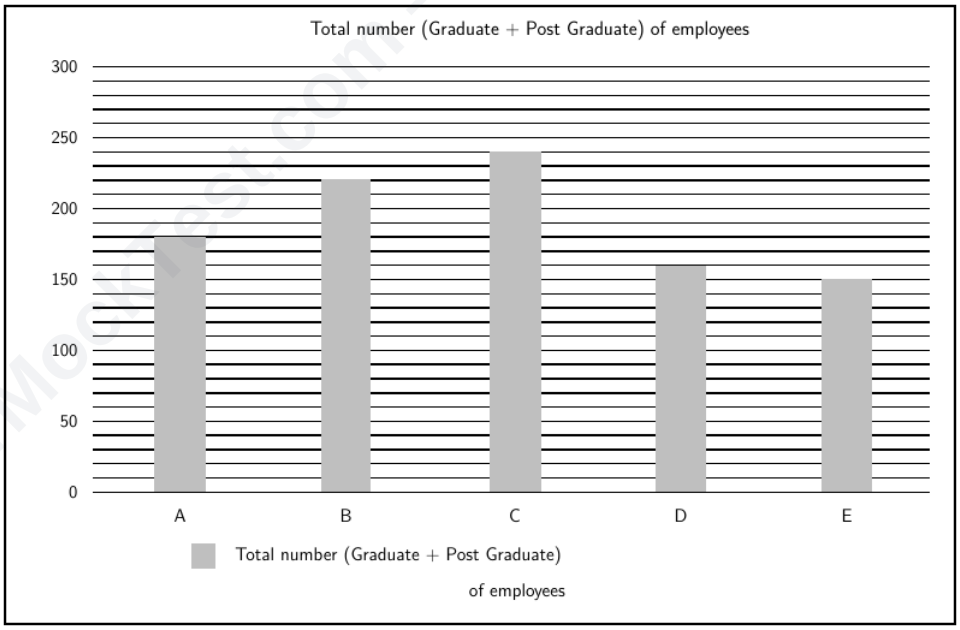
Q62. If Sita goes to a multiplex at 6 km/hr slower than her usual speed to see a movie and reaches 8 minutes late. Also if she travels at 4 km/hr more speed than her usual speed she reaches 9/2 minutes early. Then the distance of the multiplex from her starting point is?

(a) 16 km
(b) 72 km
(c) 60 km
(d) 48 km
(e) 80km

Directions

The bar graphs show the total number of employees [Graduate + Post Graduate] in five different companies.

[Figure: see this question online]



The give table shows the percentage of Graduate employees out of total number of employees in each company.

Company	The percentage of Graduate employees out of total number of employees
A	40%
B	60%
C	70%
D	50%
E	80%

Q63. In Company B, 75% of the graduate employees are males, and 75% of the postgraduate employees are females. In Company C, 57.12% of the graduates are females, and 50% of the postgraduates are males. What is the total number of male employees in Company B and Company C together?

(a) 240
(b) 229
(c) 260
(d) 280
(e) 290

Q64. In Company D, if male and female employees are equal, and among postgraduates, males are 20 more than females, How many female graduate employees are there in Company D?

(a) 30
(b) 40

(c) 50
(d) 60
(e) 55

Q65. 23 male graduates from Company E are transferred to Company A. In Company A, before transfer, only 50% of graduate males and 75% of post graduate are male. After the transfer, what is the new approximate percentage of male employees in Company A?

(a) 75%
(b) 69%
(c) 55%
(d) 32%
(e) 48%

Q66. In Company A, Ratio of male graduate and female graduate is 2 : 1, and Among postgraduates, 25% are unmarried females. In Company D: Among 80 graduates, 60% are married, and Among 80 postgraduates, 50% are females, and 40% of those females are married. Find the total number of unmarried employees in Company A and D together.

(a) 73
(b) 84
(c) 36
(d) 98
(e) 83

Q67. In Company E, 20% of postgraduate employees are females. Find the number of female postgraduate employees.

(a) 6
(b) 5
(c) 4
(d) 7
(e) 3

Q68. Samay and Sagar invested the amount for a year in the ratio of 3:5. After 3 months Samay invested 10% more money and after 8 months Sagar took back 15% of his investment. At the end of the year Samay gets Rs. 12900 of the total profit. Find the profit share of Sagar.

(a) Rs. 19000
(b) Rs. 17200
(c) Rs. 18500
(d) Rs. 16500
(e) Rs. 15200

Q69. The ratio of the speed of a boat and speed of the stream is 9 : 5 and the ratio of the speed of another boat to that of the first boat is 4 : 3. What will be the ratio of the time required for the second boat to cover a certain distance downstream to that in upstream?

(a) 8 : 17
(b) 9 : 17
(c) 7 : 17
(d) 10 : 17
(e) None of these

Q70. Anil can hit a balloon 6 times in 7 shots. Ben can hit the balloon 4 times in 5 shots, Carey can hit 3 times in 4 shots. What is the probability that the balloon is damaged by exactly 2 shots out of 3 shots?

(a) 18/140
(b) 33/140
(c) 43/140
(d) 27/70
(e) 57/140

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REASONING ABILITY

Directions

Directions: Read the information and answer the given questions.

Nine boxes namely, A, B, C, D, E, F, G, H, and I, are stacked one above the other. Box F is positioned immediately above Box G. There are exactly three boxes between Box A and Box B. Two boxes are placed between Box C and Box D, where Box D is positioned immediately above Box B. Box E is placed immediately above Box A. There is exactly one box between Box H and Box I, and Box I is placed somewhere below Box H.

Q71. As many boxes kept above G is same as below Box __?

(a) F
(b) C
(c) B
(d) I
(e) A

Q72. Which one is odd?

(a) E - G
(b) F - B
(c) G - H
(d) D - H
(e) B - I

Q73. Which among the following box is kept at the lowest position?

(a) H
(b) I
(c) G
(d) F
(e) C

Q74. How many boxes are kept between Box F and Box I?

(a) One
(b) Two
(c) Three
(d) Four
(e) More than four

Q75. Which of the following statements is definitely correct?

(a) Box H is immediately above Box I
(b) Box A is two boxes above Box G
(c) Box D is adjacent to Box H
(d) Only one box is between Box G and Box I
(e) All of the above

Directions

Directions: Read the information and answer the given questions.

Eight friends namely, P, Q, R, S, T, U, V, and W, joined their jobs in different years: 1955, 1958, 1962, 1969, 1974, 1983, 1997, and 2008, but not necessarily in the same order. The experience they calculated in 2025.

T joined the job five years earlier than U. V joined the job in an even-numbered year, but not in 1962. Three people joined the job between the joining years of P and Q, where P joined before Q. The experience of U is a multiple of 17 but not less than 50. Two persons joined the job between Q and W, and W did not join in the latest year. The experience of S is equal to the sum of the experiences of R and Q.

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Q76. Which among the following is the correct statement?

(a) Q joined in 1997.
(b) Three people joined before U.
(c) U have thrice the experience of V.
(d) The sum of the experience of R and V is 50 years.
(e) All statements are true.

Q77. How many people joined before Q?

(a) One
(b) Two
(c) Three
(d) Four
(e) More than four

Q78. What is the difference of the experiences of W and Q?

(a) 12 years
(b) 15 years
(c) 20 years
(d) 21 years
(e) 25 years

Q79. Which one is odd?

(a) P
(b) W
(c) U
(d) R
(e) V

Q80. Who among the following joined the job in 1955?

(a) P
(b) Q
(c) S
(d) U
(e) W

Directions

Direction: In the question below are given three statements followed by two conclusions numbered I and II You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Q81. statements:

Only a few Wiwo are Cars
Some Bike are Wiwo
No Deta is a car
conclusions:
I. At least some Wiwo are Deta
II. All Cars being Bike is a possibility

(a) Only I follows
(b) Only II follows
(c) Both I and II follows
(d) Neither I nor II follows
(e) Either I or II follows

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Q82. statements:

Only a few Sitara are Chand

Some Chand are Suraj

Some Suraj are Planet

Conclusions:

All Sitara can never be Suraj

At least some Sitara are Planet

(a) Only I follows
(b) Only II follows
(c) Both I and II follows
(d) Neither I nor II follows
(e) Either I or II follows

Q83. Statements:

Only a few July are March

No March is an April

Some April are May

Conclusions:

I. All July are April

II. Some July are not April

(a) Only II follows
(b) Only I follows
(c) Both I and II follows
(d) Neither I nor II follows
(e) Either I or II follows

Directions

Directions: Read the information and answer the given questions.

Seven individuals, namely, L, Q, M, S, T, V, and Z, are seated around a circular table for a strategic discussion. All of them face the center, and each one is associated with a different city, namely: Mumbai, Delhi, Chennai, Jaipur, Lucknow, Bhopal, and Kolkata, though not necessarily in that order.

Z, who is from Kolkata, is seated exactly between the persons from Delhi and Lucknow. The person connected to Delhi sits third to the left of the one who is seated immediately to the left of L. The individual associated with Jaipur is seated next to V, who is positioned fourth to the right of Z. M is linked with Chennai and is seated directly between the persons associated with Mumbai and T. V is not associated with Mumbai. The person from Bhopal is seated immediately to the left of S, who is linked with Jaipur.

Q84. Which of the following statements is definitely true based on the given information?

(a) The person from Bhopal sits to the immediate right of M
(b) M is seated between the person from Mumbai and Delhi
(c) Q sits third to the left of the person from Chennai
(d) The person from Bhopal is seated between Delhi and Lucknow
(e) All statements are true.

Q85. Which of the following is the odd one out?

(a) L - Jaipur
(b) M - Bhopal
(c) V - Delhi
(d) Q - Kolkata
(e) T - Mumbai

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Q86. Who among the following is seated second to the right of the one associated with Delhi?

(a) The one from Kolkata
(b) M
(c) T
(d) V
(e) The one from Jaipur

Q87. Which of the following pairs is correctly matched?

(a) M - Mumbai
(b) S - Kolkata
(c) V - Bhopal
(d) Z - Chennai
(e) Q - Lucknow

Q88. How many persons sit between the person who is from Jaipur and V from the right of V?

(a) One
(b) Two
(c) Three
(d) None
(e) More than three

Q89. In the word “NOSTALGIA”, how many pairs of letters exist where the letters have the same number of letters between them as they have in the English alphabetical order (forward or backward)?

(a) One
(b) Two
(c) Three
(d) Four
(e) More than four

Directions

Directions: Read the following information carefully and answer the questions.

Seven persons, i.e., D, H, J, L, N, O and T are participating in different sports event Boxing, Yoga, Cycling, Chess, Shooting, Archery, and Tennis. They are going to part in different months January, February, March, April, May, June, and July of the same year. All the information is not necessarily in the same order.

Two persons go between D and J, who takes part in Archery. T doesn't take part Chess. O takes part before June but after J. The one who takes part in Cycling have event scheduled in March. D takes part before May in Boxing. Only two persons have event after the one who have the event of Shooting. Two persons between L and H. T have the event immediately after L. N have event before H and after D. N doesn't have event of Chess and Tennis.

Q90. If N is related to J and H is related to O in a certain way then who among the following person is related to T?

(a) O
(b) D
(c) L
(d) J
(e) H

Q91. How many persons have event between months of D and J?

(a) Four
(b) Five
(c) Two
(d) One
(e) Three

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Q92. Which of the following represents the people who have event in February and July?

(a) D and J
(b) H and J
(c) N and T
(d) N and O
(e) J and D

Q93. In which event N is going to take part?

(a) Chess
(b) Yoga
(c) Tennis
(d) Shooting
(e) Archery

Q94. `Which of the following represents the month in which O has event?

(a) July
(b) March
(c) April
(d) June
(e) May

Q95. From the word “FABRICATING”, form a four-letter meaningful English word using the 3rd, 4th, 6th, and 7th letters from the left end, using each letter only once. What would be the second letter of that word? If no meaningful word can be formed, mark the answer as X. If more than one meaningful word is possible, mark the answer as Y.

(a) B
(b) A
(c) R
(d) X
(e) Y

Directions

Directions: Study the following information to answer the given questions:

Fourteen people are sitting in two parallel rows. A, B, C, D, E, F, G are sitting in row-1 facing north and P, Q, R, S, T, U, V are sitting in row-2 facing south such that the persons sitting in row-1 faces the persons sitting in row-2. G sits third to the left of A and neither of them sits at the end of the row. The one who faces A sits immediately to the left of Q. Only one person sits between P and Q. U sits third to the right of P. The one who faces U sits third to the left of C. V sits immediately to the left of R. Three persons sit between R and T. The one facing V sits immediate left of B. Only one person sits between D and B. F sits to the right of E. The one who sits immediately to the left of U does not face E

Q96. How many people are sitting between D and A?

(a) Two
(b) One
(c) Four
(d) Five
(e) Three

Q97. Which pair sit on the extreme ends?

(a) S, A
(b) P, G
(c) E, F
(d) E, P
(e) None

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Q98. Who faces G?

(a) S
(b) R
(c) U
(d) V
(e) P

Q99. Who sits immediate to the right of one who faces F?

(a) S
(b) A
(c) Q
(d) V
(e) U

Q100. Who sits third to the left of R?

(a) V
(b) U
(c) S
(d) Q
(e) P

ANSWER KEY

1	d	2	c	3	c	4	c	5	c	6	b	7	b	8	c	9	b	10	b
11	c	12	d	13	c	14	a	15	b	16	c	17	a	18	d	19	b	20	d
21	b	22	b	23	b	24	a	25	e	26	a	27	d	28	a	29	c	30	d
31	b	32	a	33	d	34	a	35	d	36	c	37	a	38	b	39	d	40	c
41	c	42	a	43	c	44	d	45	a	46	a	47	c	48	b	49	b	50	a
51	a	52	a	53	c	54	c	55	e	56	e	57	a	58	c	59	b	60	b
61	c	62	b	63	b	64	c	65	b	66	e	67	a	68	a	69	c	70	d
71	c	72	d	73	b	74	e	75	b	76	c	77	e	78	d	79	d	80	c
81	b	82	d	83	a	84	c	85	d	86	c	87	c	88	d	89	c	90	a
91	c	92	c	93	b	94	e	95	c	96	e	97	d	98	d	99	e	100	d

SOLUTIONS

Q1. Answer: (d) A

The correct answer is option 4) A

Key Points

• The correct sequence or order of the segments after rearrangement is A -> E -> C -> D -> F -> B.

• 'A' logically comes first, introducing the main overarching theme: the transformative power of artificial intelligence (AI) and its profound impact on employment.

• 'E' follows 'A', narrowing the focus to clarify a crucial perspective—that this technological impact on jobs is not a zero-sum game.

• 'C' is fixed as the third sentence, directly expanding on the "not a zero-sum game" concept by showing how automation displaces some job categories while simultaneously creating new ones.

• 'D' follows 'C', introducing a contrast ('However') to highlight the significant effort required by employees and employers to reskill and upskill the workforce.

• 'F' follows 'D', stating that policymakers and business leaders must collaborate to create supportive environments that facilitate "this transition" mentioned in D.

• 'B' concludes the paragraph seamlessly, offering the ultimate solution: investing in education and training programs to harness AI's potential while mitigating its disruptive effects.

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Paragraph after rearranging the sentences:

A. The transformative power of artificial intelligence (AI) is reshaping industries, leading to a profound impact on employment patterns.

E. It is essential to understand that technology's impact on jobs is not a zero-sum game.

C. While automation can lead to the displacement of certain job categories, it also creates new opportunities and transforms existing ones in ways that could benefit the workforce.

D. However, adapting to these technological changes requires significant effort from both employees and employers to reskill and upskill the workforce.

F. Policymakers and business leaders must collaborate to create supportive environments that facilitate this transition.

B. By investing in education and training programs, society can harness AI's potential while mitigating its disruptive effects.

Q2. Answer: (c) E

The correct answer is option 3) E:

Key Points

• The correct sequence or order of the segments after rearrangement is A -> E -> C -> D -> F -> B.

• 'A' logically comes first, introducing the main overarching theme: the transformative power of artificial intelligence (AI) and its profound impact on employment.

• 'E' follows 'A', narrowing the focus to clarify a crucial perspective—that this technological impact on jobs is not a zero-sum game.

• 'C' is fixed as the third sentence, directly expanding on the "not a zero-sum game" concept by showing how automation displaces some job categories while simultaneously creating new ones.

• 'D' follows 'C', introducing a contrast ('However') to highlight the significant effort required by employees and employers to reskill and upskill the workforce.

• 'F' follows 'D', stating that policymakers and business leaders must collaborate to create supportive environments that facilitate "this transition" mentioned in D.

• 'B' concludes the paragraph seamlessly, offering the ultimate solution: investing in education and training programs to harness AI's potential while mitigating its disruptive effects.

Paragraph after rearranging the sentences:

A. The transformative power of artificial intelligence (AI) is reshaping industries, leading to a profound impact on employment patterns.

E. It is essential to understand that technology's impact on jobs is not a zero-sum game.

C. While automation can lead to the displacement of certain job categories, it also creates new opportunities and transforms existing ones in ways that could benefit the workforce.

D. However, adapting to these technological changes requires significant effort from both employees and employers to reskill and upskill the workforce.

F. Policymakers and business leaders must collaborate to create supportive environments that facilitate this transition.

B. By investing in education and training programs, society can harness AI's potential while mitigating its disruptive effects.

Q3. Answer: (c) D

The correct answer is D.

Key Points

• The paragraph discusses the impact of AI on jobs, the need to adapt, and the solutions required to navigate the workforce transition.

• Sentence A is the first sentence as it introduces the core subject—how AI is reshaping industries and affecting employment:

• "The transformative power of artificial intelligence (AI) is reshaping industries, leading to a profound impact on employment patterns."

• Sentence E is the second sentence, offering a broader perspective on this impact:

• "It is essential to understand that technology's impact on jobs is not a zero-sum game."

• Sentence C is fixed as the 3rd sentence, elaborating on why it is not a zero-sum game:

• "While automation can lead to the displacement of certain job categories, it also creates new opportunities and transforms existing ones in ways that could benefit the workforce."

• Sentence D is the fourth sentence, introducing the requirement to adapt through upskilling and reskilling:

• "However, adapting to these technological changes requires significant effort from both employees and employers to reskill and upskill the workforce."

• Sentence F is the fifth sentence, bringing in policymakers and leaders to support "this transition" mentioned in sentence D:

• "Policymakers and business leaders must collaborate to create supportive environments that facilitate this transition."

• Sentence B is the sixth sentence, providing a practical concluding solution for harnessing AI's potential:

• "By investing in education and training programs, society can harness AI's potential while mitigating its disruptive effects."

• The correct sequence is A - E - C - D - F - B, making D the FOURTH sentence.

Coherent paragraph after rearrangement:

"The transformative power of artificial intelligence (AI) is reshaping industries, leading to a profound impact on employment patterns. It is essential to understand that technology's impact on jobs is not a zero-sum game. While automation can lead to the displacement of certain job categories, it also creates new opportunities and transforms existing ones in ways that could benefit the workforce. However, adapting to these technological changes requires significant effort from both employees and employers to reskill and upskill the workforce. Policymakers and business leaders must collaborate to create supportive environments that facilitate this transition. By investing in education and training programs, society can harness AI's potential while mitigating its disruptive effects."

Q4. Answer: (c) B

The correct answer is B.

Key Points

• The paragraph discusses the impact of AI on jobs, the need to adapt, and the solutions required to navigate the workforce transition.

• Sentence A is the first sentence as it introduces the core subject—how AI is reshaping industries and affecting employment:

• "The transformative power of artificial intelligence (AI) is reshaping industries, leading to a profound impact on employment patterns."

• Sentence E is the second sentence, offering a broader perspective on this impact:

• "It is essential to understand that technology's impact on jobs is not a zero-sum game."

• Sentence C is fixed as the 3rd sentence, elaborating on why it is not a zero-sum game:

• "While automation can lead to the displacement of certain job categories, it also creates new opportunities and transforms existing ones in ways that could benefit the workforce."

• Sentence D is the fourth sentence, introducing the requirement to adapt through upskilling and reskilling:

• "However, adapting to these technological changes requires significant effort from both employees and employers to reskill and upskill the workforce."

• Sentence F is the fifth sentence, bringing in policymakers and leaders to support "this transition" mentioned in sentence D:

• "Policymakers and business leaders must collaborate to create supportive environments that facilitate this transition."

• Sentence B is the sixth sentence, providing a practical concluding solution for harnessing AI's potential:

• "By investing in education and training programs, society can harness AI's potential while mitigating its disruptive effects."

• The correct sequence is A - E - C - D - F - B, making B the SIXTH sentence.

Coherent paragraph after rearrangement:

"The transformative power of artificial intelligence (AI) is reshaping industries, leading to a profound impact on employment patterns. It is essential to understand that technology's impact on jobs is not a zero-sum game. While automation can lead to the displacement of certain job categories, it also creates new opportunities and transforms existing ones in ways that could benefit the workforce. However, adapting to these technological changes requires significant effort from both employees and employers to reskill and upskill the workforce. Policymakers and business leaders must collaborate to create supportive environments that facilitate this transition. By investing in education and training programs, society can harness AI's potential while mitigating its disruptive effects."

Q5. Answer: (c) F

The correct answer is option 3) F:

Key Points

• The correct sequence or order of the segments after rearrangement is A -> E -> C -> D -> F -> B.

• 'A' logically comes first, introducing the main overarching theme: the transformative power of artificial intelligence (AI) and its profound impact on employment.

• 'E' follows 'A', narrowing the focus to clarify a crucial perspective—that this technological impact on jobs is not a zero-sum game.

• 'C' is fixed as the third sentence, directly expanding on the "not a zero-sum game" concept by showing how automation displaces some job categories while simultaneously creating new ones.

• 'D' follows 'C', introducing a contrast ('However') to highlight the significant effort required by employees and employers to reskill and upskill the workforce.

• 'F' follows 'D', stating that policymakers and business leaders must collaborate to create supportive environments that facilitate "this transition" mentioned in D.

• 'B' concludes the paragraph seamlessly, offering the ultimate solution: investing in education and training programs to harness

AI's potential while mitigating its disruptive effects.

Paragraph after rearranging the sentences:

A. The transformative power of artificial intelligence (AI) is reshaping industries, leading to a profound impact on employment patterns.

E. It is essential to understand that technology's impact on jobs is not a zero-sum game.

C. While automation can lead to the displacement of certain job categories, it also creates new opportunities and transforms existing ones in ways that could benefit the workforce.

D. However, adapting to these technological changes requires significant effort from both employees and employers to reskill and upskill the workforce.

F. Policymakers and business leaders must collaborate to create supportive environments that facilitate this transition.

B. By investing in education and training programs, society can harness AI's potential while mitigating its disruptive effects.

Q6. Answer: (b) Both A & B

The solution is in Hindi. Read it online.

Q7. Answer: (b) Both A & B

The solution is in Hindi. Read it online.

Q8. Answer: (c) Education

The correct answer is Option 3.

Key Points

• The passage highlights efforts to diversify Angola's economy by improving critical sectors.

• Specifically, education and healthcare sectors are mentioned as focal points for economic diversification.

• The focus on education includes revamping infrastructure and enhancing the quality of teaching.

• Therefore, the diversification efforts in the passage emphasize the importance of the education sector.

Therefore, the correct answer is Option 3.

Correct Context: Investments in education are seen as essential to breaking the cycle of poverty and setting the stage for sustainable growth in Angola.

Additional Information

• Technology: The passage does not indicate technological investments as a focus for diversification.

• Tourism: There is no mention of tourism being a part of the diversification strategy.

• Agriculture: The passage does not discuss agriculture in the context of diversification efforts.

• Infrastructure: Although infrastructure is mentioned, it is within the context of supporting educational reforms, not as a separate focal area for economic diversification.

Q9. Answer: (b) Inadequate medical equipment

The correct answer is Option 2.

Key Points

• The passage highlights several issues affecting Angola's healthcare system.

• One significant problem mentioned is the shortage of medical supplies and qualified personnel, particularly in rural areas.

• The lack of sufficient medical equipment and dilapidated facilities are specifically mentioned as challenges.

• This makes it difficult for healthcare providers to deliver quality services, exacerbating the issue of preventable diseases.

Therefore, the correct answer is Option 2.

Correct Context: Hospitals and clinics, particularly in rural areas, suffer from a shortage of medical supplies and qualified personnel. Chronic underfunding has led to dilapidated facilities and insufficient medical equipment, making it challenging for healthcare providers to deliver quality services.

Additional Information

• Limited international aid: Though mentioned, it is identified as a temporary relief measure, not the primary hindrance.

• High cost of pharmaceuticals: This issue is not discussed in the passage.

• Overpopulation in urban areas: While there is mention of rural migrants putting pressure on urban resources, this is a secondary issue.

• Lack of technological advancements: This is not mentioned as a significant hindrance in the passage.

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Q10. Answer: (b) Teacher absenteeism

The correct answer is Option 2.

Key Points

• The passage mentions specific systemic issues in Angola's education sector that need to be addressed.

• One of these issues is teacher absenteeism, which hampers the progress of many students.

• Other issues include low salaries and lack of continuous professional development, but the question asks for one specific issue, and teacher absenteeism is notably mentioned.

Therefore, the correct answer is Option 2.

Correct Context: Improving educational outcomes is not just about infrastructure but also about addressing systemic issues such as teacher absenteeism, low salaries, and lack of continuous professional development.

Additional Information

• High tuition fees: This issue is not discussed in the passage.

• Curriculum changes: There is no mention of issues related to curriculum changes.

• Parental involvement: The passage does not discuss parental involvement as a systemic issue.

• School uniform policies: This issue is not mentioned in the passage.

Q11. Answer: (c) Poor school attendance by students

The correct answer is Option 3.

Key Points

• The passage mentions several challenges facing Angola's education sector.

• These challenges include a shortage of textbooks, inadequate technological tools, and undertrained educators.

• Additionally, the passage points out that many rural children face long travel distances to attend school.

• However, the passage does not mention poor school attendance by students as a challenge.

Therefore, the correct answer is Option 3.

Correct Context: The passage discusses various specific issues that hinder the progress of Angola's education sector but does not mention poor school attendance by students.

Additional Information

• Shortage of textbooks: Mentioned as a challenge in the passage.

• Inadequate technological tools: Mentioned as a challenge in the passage.

• Undertrained educators: Mentioned as a challenge in the passage.

• Long travel distances for rural children: Mentioned as a challenge in the passage.

Q12. Answer: (d) B and C

The correct answer is Option 4.

Key Points

• Statement A: The Angolan government has decreased funds towards education.

• This statement is incorrect as the passage indicates that the Angolan government has allocated increased funds towards education.

• Statement B: Many rural areas in Angola remain underserved in terms of educational facilities.

• This statement is correct as it accurately reflects the information in the passage.

• Statement C: Significant improvements in resource allocation and governance are needed for educational reforms to be successful.

• This statement is correct as it aligns with the assertions made in the passage about the need for better resource allocation and governance.

Therefore, the correct answer is: B and C.

Q13. Answer: (c) Only C

The correct answer is Option 3.

Key Points

• Statement A: Chronic underfunding has led to insufficient medical equipment in hospitals and clinics.

• This statement is correct as it accurately reflects the information in the passage.

• Statement B: Preventive care and public health campaigns can reduce the incidence of disease.

• This statement is correct as it aligns with the assertions made in the passage.

• Statement C: Urban migration has alleviated the strain on healthcare resources.

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• This statement is incorrect as the passage indicates that urban migration has actually put additional strain on healthcare resources.

Therefore, the correct answer is: Only C.

Q14. Answer: (a) resilient

The correct answer is 'resilient'.

Key Points

• The word "resilient" means able to withstand or recover quickly from difficult conditions.

• In the context of healthcare, a resilient system is one that can effectively respond to challenges and maintain functionality.

• The other options: "profitable," "minimalist," "centralized," and "revolutionary" do not fit the context as appropriately.

Therefore, the correct answer is 'Option 1'.

Complete Sentence: Investing in healthcare education and training for medical professionals is crucial for building a resilient health system.

Additional Information

• Profitable: Means yielding profit or financial gain.

• Minimalist: Means characterized by simplicity and spareness.

• Centralized: Means concentrated under a single authority.

• Revolutionary: Means involving or causing a complete or dramatic change.

Q15. Answer: (b) hinder

The solution is in Hindi. Read it online.

Q16. Answer: (c) bleak

The solution is in Hindi. Read it online.

Q17. Answer: (a) BAC

The correct answer is BAC.

Key Points

• Obvious: clear or evident

• Filtered: strained

• Horizon: the line where the sky seems to touch the land or sea

Important Points

We may consider A, B, and C to be three blanks. A is the first blank, B is the second, and C is the third.

• The word 'filtered' is appropriate for the first blank because sunlight passes through the Earth's atmosphere. Therefore, the correct choice is "filtered".

• The word 'obvious' is appropriate for the second blank because the sunlight is visible when we see the sun in the sky. Hence, the correct choice is 'obvious'.

• The word 'horizon' is appropriate for the last blank because when the sun is visible in the horizon we can clearly see the daylight. Hence, the word 'horizon' is the correct choice.

The correct sentence will be: On Earth, sunlight is scattered and filtered through Earth's atmosphere, and is obvious as daylight when the Sun is above the horizon.

Q18. Answer: (d) BCA

The correct answer is BCA.

Key Points

• Rising: increasing

• Phase: stage or period

• Led: guided

Important Points

We may consider A, B, and C to be three blanks. A is the first blank, B is the second, and C is the last.

• The word 'phase' is appropriate for the first blank because evolution is a process and it may have several phases. Hence, the correct choice is 'phase'.

• The past participle form of the verb('Verb³')should be chosen for the second blank because the subject is acted upon by the verb. Hence, the correct choice is 'led'.

• An adjective is required to qualify the noun 'adoption'. Hence, the word 'rising', which is an adjective, is the correct choice.

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The correct sentence will be: The next phase of retail evolution in India will be led by the rising adoption of digital platforms by consumers.

Q19. Answer: (b) ACB

The correct answer is ACB.

Key Points

• Delivery: the supply of something or the process of delivering goods or parcels

• Increased: grew or enlarged

Important Points

We may consider A, B, and C to be three blanks. A is the first blank, B is the second, and C is the last.

• The word 'turning' is appropriate for the first blank. The auxiliary verb ('are') is used before the first blank. Hence, the present continuous tense should be used. Therefore, the correct choice is 'turning'.

• A word is required for the second blank to qualify the noun 'efficiency'. Therefore, the word 'increased' is appropriate for the second blank.

• The word 'delivery' is appropriate for the last blank because the words 'delivery schedules' are contextually meaningful.

The correct sentence will be: Power utilities and energy companies are turning to public power trading on account of better prices and increased efficiency in delivery schedules.

Q20. Answer: (d) C-Q and A-P

The solution is in Hindi. Read it online.

Q21. Answer: (b) appears to be

The correct answer is: 'Option 2'.

Key Points

• The given phrase is: 'appear to be'

• The correct phrase should be 'appears to be' as the sentence is in 'Present Indefinite Tense'.

• According to the rule, a singular verb is used with a singular subject.

• The subject of the sentence 'Agni' is 'Singular' here. So, 'Singular verb' should be used instead of 'Plural'.

• Therefore, the correct answer is: 'appears to be'.

Correct sentence: Agni, the flagship indigenous artillery missile, appears to be governed even before its induction and deployment in the field.

Additional Information

• 'appeared to be' is not appropriate use here.

• 'appearing to be' is not appropriate use here.

• 'has appeared to be' is not appropriate use here.

Q22. Answer: (b) hanging out with friends

The correct answer is 'Option 2'

Key Points

• The correct phrase is 'hanging out with friends.'

• The verb tense needs to match with "appreciates listening" and "playing" which are present participles.

• "Hanging out" is the present participle form of the phrasal verb.

• Hence, The correct answer is 'hanging out with friends.'

The correct sentence after phrase replacement would be: 'He appreciates listening to jazz music, playing basketball, and hanging out with friends on weekends.'

Additional Information

• Will hang out with friends: This is the future tense and does not match the present participle tense used for "appreciates listening" and "playing".

• Hang out with friends: which means to spend time socializing informally.

• Hangs out with friends: This is the simple present tense which suggests a habitual action, but it sounds awkward following "appreciates.

Q23. Answer: (b) Advantageously

The correct answer is advantageously.

Key Points

The passage refers to a generation of men who are able to get what they want. Therefore, advantageously is the only apt choice while other options are out of context.

Thus, the word advantageously is the most appropriate word for blank A out of the given options which perfectly fits in the context of the sentence

The meaning of the word that perfectly fits in the context of the sentence is:

Advantageously: In a way that is giving advantages or helping to make you more successful. It is an adverb.

Additional Information

Let us look at the meaning of the other words:

Word	Meaning
Precipitously	hastily and without careful consideration
Unambiguously	in a manner that is not open to more than one interpretation
Gingerly	in a careful or cautious manner
Waywardly	following no clear principle or law; unpredictable

Q24. Answer: (a) Disposition

The correct answer is disposition.

Key Points

The word for blank B should be 'disposition' as "instead of" is mentioned before the blank which gives us the clue that the word which will fit appropriately in blank B should be antonym or near antonym of 'chaos'. Thus the word disposition is the most suitable word for blank B which perfectly fits in the context of the sentence.

The meaning of the word that perfectly fits in the context of the sentence is:

Disposition: the way in which something is placed or arranged; order. It is a noun.

Additional Information

Let us look at the meaning of the other words:

Word	Meaning
Disarray	A state of disorganization or untidiness
Disruption	Disturbance or problems which interrupt an event, activity, or process
Averseness	Having a feeling of opposition, distaste
Insouciance	Casual lack of concern; indifference

Q25. Answer: (e) Incompetence

The correct answer is incompetence.

Key Points

The word incompetence is the most suitable word for blank C out of the given options. Here we are talking about a government that persists stubbornly and obstinately in its ineffectiveness. Therefore the word incompetence aptly fits in the context of the sentence.

The meaning of the word that perfectly fits in the context of the sentence is:

Incompetence: inability to do something successfully; ineptitude. It is a noun.

Additional Information

Let us look at the meaning of the other words:

Word	Meaning
Potency	the power of something to influence or make an impression
consummate	showing great skill and flair
Prowess	skill or expertise in a particular activity or field
Sinew	the parts of a structure, system, or organization that give it strength or bind it together

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Q26. Answer: (a) Ingenious

The correct answer is ingenious.

Key Points

The sentence with blank D implies that the governments with their persistent incompetence have taken one of the most original and inventive nations on earth to abysmal depths. So the only word that describes the nations of the earth with a positive connotation is 'ingenious' and hence fits in the context of the sentence appropriately.

The meaning of the word that perfectly fits in the context of the sentence is:

Ingenious: clever, original, and inventive. It is an adjective.

Additional Information

Let us look at the meaning of the other words:

Word	Meaning
Blemished	spoil the appearance or quality of (something)
Nonplussed	so surprised and confused that one is unsure how to react
Mutinous	refusing to obey the orders of a person in authority
Aberrant	departing from an accepted standard
Abysmal	extremely bad; appalling

Q27. Answer: (d) Heritage

The correct answer is heritage.

Key Points

For the sentence with the blank E, 'ancestry' and 'heredity' don't fit in as they suggest individuals, not a nation. Here the word heritage is the most suitable word for blank E out of the given options as 'spirituality' is not merely a background but something that we have had for a long time which is suggested by the word heritage.

The meaning of the word that perfectly fits in the context of the sentence is:

Heritage: property that is or may be inherited; an inheritance. It is a noun.

Additional Information

Let us look at the meaning of the other words:

Word	Meaning
Ancestry	one's family or ethnic descent
Heredity	the passing on of physical or mental characteristics genetically from one generation to another
Abstruse	difficult to understand; obscure
Temerity	excessive confidence or boldness; audacity

Q28. Answer: (a) Tenet

The correct answer is tenet.

Key Points

The sentence with the blank F mentions the law of Karma which is one of the principles of ancient Indian culture. Therefore the word tenet is the most suitable word for blank F which perfectly fits in the context of the sentence.

The meaning of the word that perfectly fits in the context of the sentence is:

Tenet: a principle or belief, especially one of the main principles of a religion or philosophy. It is a noun.

Additional Information

Let us look at the meaning of the other words:

Word	Meaning
Memoir	a historical account or biography, written from personal knowledge
Sacrilege	violation or misuse of what is regarded as sacred
Maladroit	inefficient or inept; clumsy

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Paragon	a person or thing regarded as a perfect example of a particular quality

Q29. Answer: (c) C

The correct answer is "Option 3".

Key Points

• The erroneous part is the use of "was".

• The phrase "a number of people" functions as a plural subject because it refers to multiple individuals.

• The subject "a number of people" is plural, so the verb should also be plural to agree with it.

• So, the structure of sentence is: A number of + Plural Noun + Plural Verb

• Example: A number of students are waiting here.

• Hence, "were" should be used instead of "was".

Therefore, the correct answer is "Option 3".

Correct Sentence: "I don't know about them but I have seen that a number of people were present in the recent rallies in Uttar Pradesh."

Additional Information

• Rule for using "the number of", and "the variety of":

• We use the following sentence structure

• "The number of + plural noun + Singular verb"

• Example: The number of students is fifty.

Q30. Answer: (d) D

The correct answer is Option 4.

Key Points

• The error lies in part D, where the sentence uses "than anyone".

• When a person is compared with all the other members of the same group, "than anyone else" is more appropriate.

• The word "else" makes it clear that Sheila is being compared with the other students, not with herself.

• Therefore, "than anyone" should be replaced with "than anyone else."

Therefore, the correct answer is D.

Correct Sentence: "Sheila was always the best student in the class, often scoring higher marks than anyone else."

Additional Information

• A: "Sheila was always" – This part is grammatically correct and does not require any changes.

• B: "the best student in the class" – This part is grammatically correct. The superlative "best" is appropriately used for comparison within the class.

• C: "often scoring higher marks" – This part is grammatically correct. The participial phrase appropriately describes Sheila's performance.

• E: "No error" – This is incorrect because part D contains an error. The correct expression is "than anyone else."

Q31. Answer: (b) B

The correct answer is 'Option 2 (B)'.

Key Points

• The error is in part B, where the phrase "have been falling" is used.

• The subject "the marketing team" is a singular collective noun and takes the singular auxiliary verb "has" in standard exam-oriented English.

• Therefore, "has been falling" is the correct form instead of "have been falling."

• Options 1, 3, and 4 do not contain any grammatical error.

Therefore, the correct answer is Option 2.

Complete Sentence: "The marketing team has been falling further away from its goals since its internal shuffle of posts."

Additional Information

• Option 1 (A): "The marketing team" is grammatically correct and functions as the singular subject of the sentence.

• Option 2 (B): "have been falling" is incorrect because the singular subject "the marketing team" requires "has been falling."

• Option 3 (C): "further away from its goals" is grammatically and contextually appropriate.

• Option 4 (D): "since its internal shuffle of posts" is grammatically acceptable and correctly indicates the point in time from which

the situation has continued.

Q32. Answer: (a) A

The correct answer is "Option 1".

Key Points

• The erroneous part is the use of the past form of the verb "chose".

• The given sentence is in the present tense and "we" is the subject of the sentence.

• The sentence suggests a general truth or ongoing action but the use of the past form of the verb "chose" is incorrect.

• Hence, the erroneous part of the sentence is the use of "chose".

Therefore, the correct answer is "Option 1".

Correct Sentence: "We choose our objects and our places of memory, or, rather, the spirit of the times decides what is worth remembering."

Additional Information

• The verb "choose" means to select or decide on something from two or more possibilities.

• The simple past form of "choose" is "chose" and the past participle form is "chosen".

Q33. Answer: (d) D

The correct answer is 'Option 4'.

Key Points

• The part 4 of the given sentence is incorrect.

• Here, 'to' will be used instead of 'than'.

• As a general rule, "After prefer/preferable, we use a 'to-infinitive', not an infinitive without to when we compare two things or actions"

• Let's have a look at the example of the given rule:

• I prefer tea to coffee.

• Hence from the above explanation, it is clear that part 4 is the erroneous part.

Therefore, the correct answer is 'than conventional sources of energy' i.e., This is the erroneous part.

Correct sentence: Global warming is making threatening changes in our world, and we should prefer green energy to conventional sources of energy

Additional Information

• Option 1 is correct and error-free.

• Option 2 is correct and error-free.

• Option 3 is correct and error-free

• The same rule is followed for the word 'Marry'.

• Example- She is married to Victor.

Q34. Answer: (a) A

The correct answer is 'Option 1'.

Key Points

• The error lies in part 'A' of the sentence because 'told to' is used instead of 'told'.

• The sentence expresses that Mukesh told Sunaina that he would not buy the new car.

• The structure of the sentence is:

• Subject + past simple + object + complement.

• Hence, 'told' must be used instead of 'told to' to make the sentence correct.

Therefore, the correct answer is 'Mukesh told to Sunaina' i.e. this is the erroneous part.

Correct sentence: 'Mukesh told Sunaina that he would not buy the new car and wait till the next few months so that he would have more options.

Q35. Answer: (d) D-B

The solution is in Hindi. Read it online.

Q36. Answer: (c) A-D

The solution is in Hindi. Read it online.

Q37. Answer: (a) B-C

The solution is in Hindi. Read it online.

Q38. Answer: (b) constantly, preferable

The correct answer is 'constantly, preferable.'

Key Points

• The given sentence is talking about why nurses wear flat shoes.

• Let us explore the words in the given options:

• 'Constantly' means continuously over a period of time; always.

• 'Preferable' means more desirable or suitable.

Conclusion: The nurses find flat shoes suitable for their heels because their job is such that they have to stand continuously over a period of time.

Hence, the correct answer is option 2.

Complete Sentence: Since nurses are constantly on their feet, they find flat shoes preferable to heels.

Additional Information

• The meaning of other options:

• 'Associate' means to make a connection between people or things in your mind.

• 'Intermittent' means stopping for a short time and then starting again several times.

• 'Concern' means to affect or involve somebody or something.

• 'Routine' means the usual order and way in which you regularly do things.

• 'Never' means at no time; not ever.

• 'Consistent' means always having the same opinions, standards, behavior, etc; not changing.

• 'Sporadically' means occasionally or at irregular intervals.

• 'Repeatedly' means over and over again; constantly.

Q39. Answer: (d) horticulture, cultivate

The correct answer is 'horticulture, cultivate.'

Key Points

• The given sentence is talking about Harish joining some class that can help him in gardening.

• Let us explore the words in the given options:

• 'Horticulture' is the study or practice of growing flowers, fruit, and vegetables.

• 'Cultivate' means to prepare and use the land for growing plants for food or to sell.

Conclusion: Harish is learning horticulture to use his garden for growing flowers, plants, fruit, vegetables, etc.

Hence, the correct answer is option 4.

Complete Sentence: Harish enrolled in a class that teaches horticulture so that he can cultivate his garden.

Additional Information

• The meaning of other options:

• 'Adhocracy' is a system of flexible and informal organization and management in place of rigid bureaucracy.

• 'Abandon' means to leave somebody or something that you are responsible for, usually permanently.

• 'Hierarchy' is a system or organization that has many levels from the lowest to the highest.

• 'Dump' means to get rid of something that you do not want, especially in a place that is not suitable.

• 'Destruct' means the deliberate causing of terminal damage.

• 'Patronize' means to treat somebody in a way that shows that you think you are better, more intelligent, experienced, etc. than someone.

• 'Hurt' means to cause somebody or yourself physical pain or injury.

• 'Contend' means to have to deal with a problem or a difficult situation.

Q40. Answer: (c) evidence, verify

The correct answer is 'evidence, verify.'

Key Points

• The given sentence is talking about the police investigating the killer's moto.

• Let us explore the words in the given options:

• 'Evidence' means the facts, signs, etc. that make you believe that something is true.

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• 'Verify' means to check or state that something is true.

Conclusion: Until founding the facts of the murder, the police cannot say anything about the motive behind the murder.

Hence, the correct answer is option 3.

Complete Sentence: Until more evidence is found, the police cannot verify the killer's motive.

Additional Information

• The meaning of other options:

• 'Contradict' means to say that something is wrong or not true; to say the opposite of something.

• 'Conjecture' means to guess about something without real proof or evidence.

• 'Disclaim' means to say that you do not have something.

• 'Illustrate' means to explain or make something clear by using examples, pictures or diagrams.

• 'Challenge' means to invite somebody to fight, play, argue, etc. against you.

• 'Exhibit' means to show clearly that you have a particular quality, feeling, etc.

• 'Profess' means to say that something is true or correct, even when it is not.

• 'Witty' means clever and amusing; using words in a clever way.

Q41. Answer: (c) Rs. 2310

General Solution:

Let's define the following sets:

• Only C (Coffee) = A

• Only M (Milk) = B

• Only T (Tea) = C

• C ∩ M only (not T) = D

• C ∩ T only (not M) = E

• M ∩ T only (not C) = F

• C ∩ M ∩ T (all three) = G

We are given:

1. Only Tea (C) = 10

=> C = 10

2. All three (G) = 16

3. Only Coffee (A) = 20% more than only Tea

=> A = 10 + 20% of 10 = 10 + 2 = 12

4. Only Milk (B) = C ∩ T only (not M) = E

=> B = E

5. M ∩ T only (F) = Half of C ∩ M only (D)

=> F = ½ × D

And D = 24

=> F = 12

So far we have:

• A = 12

• B = E (unknown)

• C = 10

• D = 24

• E = B

• F = 12

• G = 16

Now, total number of people = 100

Sum of all individual segments of the Venn diagram =

A + B + C + D + E + F + G

= 12 + B + 10 + 24 + B + 12 + 16

= (12 + 10 + 24 + 12 + 16) + 2B = 74 + 2B

Set that equal to total surveyed:

74 + 2B = 100

=> 2B = 26
=> B = 13
Then E = 13
Thus,

Region	Count
Only Coffee (A)	12
Only Milk (B)	13
Only Tea (C)	10
Coffee ∩ Milk only (D)	24
Coffee ∩ Tea only (E)	13
Milk ∩ Tea only (F)	12
All three (C ∩ M ∩ T) (G)	16
Total	100

Calculations:
Only one = 12 + 13 + 10 = 35 people → Rs. 15 × 35 = Rs. 525
Exactly two = 24 + 13 + 12 = 49 people → Rs. 25 × 49 = Rs. 1225
All three = 16 people → Rs. 35 × 16 = Rs. 560
Total = 525 + 1225 + 560 = Rs. 2310
Hence, the correct answer is Rs. 2310.

Q42. Answer: (a) 51%

General Solution:
Let's define the following sets:
• Only C (Coffee) = A
• Only M (Milk) = B
• Only T (Tea) = C
• C ∩ M only (not T) = D
• C ∩ T only (not M) = E
• M ∩ T only (not C) = F
• C ∩ M ∩ T (all three) = G
We are given:
1. Only Tea (C) = 10
=> C = 10
2. All three (G) = 16
3. Only Coffee (A) = 20% more than only Tea
=> A = 10 + 20% of 10 = 10 + 2 = 12
4. Only Milk (B) = C ∩ T only (not M) = E
=> B = E
5. M ∩ T only (F) = Half of C ∩ M only (D)
=> F = ½ × D
And D = 24
=> F = 12
So far we have:
• A = 12
• B = E (unknown)
• C = 10
• D = 24
• E = B
• F = 12

• G = 16

Now, total number of people = 100

Sum of all individual segments of the Venn diagram =

A + B + C + D + E + F + G

= 12 + B + 10 + 24 + B + 12 + 16

= (12 + 10 + 24 + 12 + 16) + 2B = 74 + 2B

Set that equal to total surveyed:

74 + 2B = 100

=> 2B = 26

=> B = 13

Then E = 13

Thus,

Region	Count
Only Coffee (A)	12
Only Milk (B)	13
Only Tea (C)	10
Coffee ∩ Milk only (D)	24
Coffee ∩ Tea only (E)	13
Milk ∩ Tea only (F)	12
All three (C ∩ M ∩ T) (G)	16
Total	100

Calculations:

People who like Tea =

Only Tea = 10

Tea & Coffee only = 13

Tea & Milk only = 12

All three = 16

Total = 10 + 13 + 12 + 16 = 51

Percentage = (51 / 100) × 100 = 51%

Hence, the correct answer is 51%.

Q43. Answer: (c) 84%

General Solution:

Let’s define the following sets:

• Only C (Coffee) = A

• Only M (Milk) = B

• Only T (Tea) = C

• C ∩ M only (not T) = D

• C ∩ T only (not M) = E

• M ∩ T only (not C) = F

• C ∩ M ∩ T (all three) = G

We are given:

1. Only Tea (C) = 10

=> C = 10

2. All three (G) = 16

3. Only Coffee (A) = 20% more than only Tea

=> A = 10 + 20% of 10 = 10 + 2 = 12

4. Only Milk (B) = C ∩ T only (not M) = E

=> B = E

5. M ∩ T only (F) = Half of C ∩ M only (D)
=> F = ½ × D
And D = 24
=> F = 12
So far we have:
• A = 12
• B = E (unknown)
• C = 10
• D = 24
• E = B
• F = 12
• G = 16
Now, total number of people = 100
Sum of all individual segments of the Venn diagram =
A + B + C + D + E + F + G
= 12 + B + 10 + 24 + B + 12 + 16
= (12 + 10 + 24 + 12 + 16) + 2B = 74 + 2B
Set that equal to total surveyed:
74 + 2B = 100
=> 2B = 26
=> B = 13
Then E = 13
Thus,

Region	Count
Only Coffee (A)	12
Only Milk (B)	13
Only Tea (C)	10
Coffee ∩ Milk only (D)	24
Coffee ∩ Tea only (E)	13
Milk ∩ Tea only (F)	12
All three (C ∩ M ∩ T) (G)	16
Total	100

Calculations:
Total respondents = 100
We are to find how many people like at most two beverages, i.e., not all three.
From the previous data:
People who like all three beverages = 16
So, people who like at most two beverages = 100 – 16 = 84
Required % = (84 / 100) × 100 = 84%
Hence, the correct answer is 84%.

Q44. Answer: (d) 25:12

General Solution:
Let’s define the following sets:
• Only C (Coffee) = A
• Only M (Milk) = B
• Only T (Tea) = C
• C ∩ M only (not T) = D
• C ∩ T only (not M) = E

• M ∩ T only (not C) = F
• C ∩ M ∩ T (all three) = G
We are given:
1. Only Tea (C) = 10
=> C = 10
2. All three (G) = 16
3. Only Coffee (A) = 20% more than only Tea
=> A = 10 + 20% of 10 = 10 + 2 = 12
4. Only Milk (B) = C ∩ T only (not M) = E
=> B = E
5. M ∩ T only (F) = Half of C ∩ M only (D)
=> F = ½ × D
And D = 24
=> F = 12
So far we have:
• A = 12
• B = E (unknown)
• C = 10
• D = 24
• E = B
• F = 12
• G = 16
Now, total number of people = 100
Sum of all individual segments of the Venn diagram =
A + B + C + D + E + F + G
= 12 + B + 10 + 24 + B + 12 + 16
= (12 + 10 + 24 + 12 + 16) + 2B = 74 + 2B
Set that equal to total surveyed:
74 + 2B = 100
=> 2B = 26
=> B = 13
Then E = 13
Thus,

Region	Count
Only Coffee (A)	12
Only Milk (B)	13
Only Tea (C)	10
Coffee ∩ Milk only (D)	24
Coffee ∩ Tea only (E)	13
Milk ∩ Tea only (F)	12
All three (C ∩ M ∩ T) (G)	16
Total	100

Calculations:
We are given:
People who like only Coffee = 12
People who like only Milk = 13
People who like both Milk and Tea but not Coffee = 12
So,

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Required Ratio = (Only Coffee + Only Milk) : (Milk ∩ Tea only)
= (12 + 13) : 12
= 25 : 12
Hence, the correct answer is 25:12.

Q45. Answer: (a) 14

General Solution:
Let's define the following sets:
• Only C (Coffee) = A
• Only M (Milk) = B
• Only T (Tea) = C
• C ∩ M only (not T) = D
• C ∩ T only (not M) = E
• M ∩ T only (not C) = F
• C ∩ M ∩ T (all three) = G
We are given:
1. Only Tea (C) = 10
=> C = 10
2. All three (G) = 16
3. Only Coffee (A) = 20% more than only Tea
=> A = 10 + 20% of 10 = 10 + 2 = 12
4. Only Milk (B) = C ∩ T only (not M) = E
=> B = E
5. M ∩ T only (F) = Half of C ∩ M only (D)
=> F = ½ × D
And D = 24
=> F = 12
So far we have:
• A = 12
• B = E (unknown)
• C = 10
• D = 24
• E = B
• F = 12
• G = 16
Now, total number of people = 100
Sum of all individual segments of the Venn diagram =
A + B + C + D + E + F + G
= 12 + B + 10 + 24 + B + 12 + 16
= (12 + 10 + 24 + 12 + 16) + 2B = 74 + 2B
Set that equal to total surveyed:
74 + 2B = 100
=> 2B = 26
=> B = 13
Then E = 13
Thus,

Region	Count
Only Coffee (A)	12
Only Milk (B)	13
Only Tea (C)	10

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Coffee ∩ Milk only (D)	24
Coffee ∩ Tea only (E)	13
Milk ∩ Tea only (F)	12
All three (C ∩ M ∩ T) (G)	16
Total	100

Calculations:
Exactly two beverages = 24 (C∩M) + 13 (C∩T) + 12 (M∩T) = 49
Only one beverage = 12 (C) + 13 (M) + 10 (T) = 35
Difference = 49 – 35 = 14
Hence, the correct answer is 14.

Q46. Answer: (a) 48%

Shortcut Trick
12% of Salary = Rs. 7,200
=> 1% of Salary = 7200 ÷ 12 = Rs. 600
Total expenditure (Education + Groceries) = 60% of Salary
=> 12% + x% = 60%
=> x% = 60% − 12% = 48%
Therefore The correct answer is 48%.
Alternate Method
Given:
Education Expenditure = 12% of Salary = Rs. 7,200
Total Expenditure = 60% of Salary
Formula:
Total Expenditure = Education % + Groceries %
Calculations:
=> Let Total Salary be S.
=> (12/100) × S = 7200
=> S = (7200 × 100) ÷ 12
=> S = 600 × 100 = Rs. 60,000
=> Total Expenditure = 60% of 60,000 = 36,000
=> Groceries Expenditure = Total − Education
=> Groceries Expenditure = 36,000 − 7,200 = Rs. 28,800
=> x = (28,800 ÷ 60,000) × 100
=> x = 288 ÷ 6 = 48
Therefore The correct answer is 48%.
Additional Information
Percentage Change
Percentage change = (Change / Original Value) × 100. Useful for finding growth in salary or expenses.
Savings Calculation
Savings = Total Salary − Total Expenditure. In this case, savings would be 40% of the salary.
Base Change Rule
When multiple percentages are calculated on the same base (Total Salary), they can be added or subtracted directly.

Q47. Answer: (c) 3 days

Shortcut Trick
For two people A and B, combined time = (Product of times) ÷ (Sum of times).
2t = (5 × 5t) ÷ (5 + 5t)
2 = 25 ÷ (5 + 5t) => 10 + 10t = 25 => 10t = 15 => t = 1.5
Combined time = 2t = 2 × 1.5 = 3 days.

Therefore The correct answer is 3 days.

Alternate Method

Given:

Time taken by A = 5 days

Time taken by B = 5t days

Time taken by A + B = 2t days

Formula Used:

1/T_(total) = 1/T_A + 1/T_B

Calculations:

=> 1/(2t) = 1/5 + 1/(5t)

=> 1/(2t) − 1/(5t) = 1/5

=> (5 − 2) / (10t) = 1/5

=> 3 / (10t) = 1/5

=> 10t = 15

=> t = 1.5

=> Time taken by A and B together = 2t = 2 × 1.5

=> Time taken = 3 days

Therefore The correct answer is 3 days.

Additional Information

Efficiency and Time Relation

Efficiency is inversely proportional to the time taken to complete a work. Efficiency = Total Work ÷ Time.

Pipes and Cisterns

The same logic applies where filling pipes have positive efficiency and leakage/outlet pipes have negative efficiency.

Q48. Answer: (b) 1.6 litres

Shortcut Trick

Ratio of Final Milk to Initial Milk after 2 operations = (√0.9604) = 0.98

Remaining fraction = (Total − Replaced) ÷ Total => 0.98 = (80 − x) ÷ 80

x = 80 × (1 − 0.98) = 80 × 0.02 = 1.6 litres

Therefore The correct answer is 1.6 litres.

Alternate Method

Given: Initial quantity (C) = 80 litres, Number of operations (n) = 2, Final concentration = 96.04%.

Formula Used: Final Quantity = Initial Quantity × $[1 − (x/C)]^n$

=> $0.9604 × 80 = 80 × [1 − (x/80)]^2$

=> $0.9604 = [1 − (x/80)]^2$

=> $√0.9604 = 1 − (x/80)$

=> 0.98 = 1 − (x/80)

=> x/80 = 1 − 0.98

=> x/80 = 0.02

=> x = 80 × 0.02 = 1.6 litres

Therefore The correct answer is 1.6 litres.

Additional Information

Successive Replacement Formula

For n repeated operations of removing x units and replacing with water: Final Milk = Initial Milk × $(1 − x/Total)^n$.

Alligation Rule

Used when two mixtures are mixed; for successive dilutions, the geometric ratio method (Shortcut Trick) is faster.

Percentage to Decimal

Always convert percentage concentrations to decimals for easy square root calculation: 96.04% = 0.9604.

Q49. Answer: (b) 693

Common Calculation –

According the question,

[8% + 12% + (2P + 5) % + P% + 15 %] = 100%

So, 2P + 5 + P = 100 – 15 – 12 – 8 = 65

Or, 3P = 60

Or, P = 60/3 = 20

So, Percentage distribution of number of items manufactured in factories A, B, C, D and E is 8%, 12%, [2 × 20 + 5] =45%, 20% and 15% respectively.

So, Item manufactured in factory A is 1200 × 8 /100 = 96

Similarly, we can calculate the number of items manufactured by others factory also, which is given in the table.

Factory	Number of items manufactured
A	96
B	144
C	540
D	240
E	180

Calculation

Factory C = 540

→ 20% defective = 20% of 540 = 108

Factory D = 240

→ defective items = 25% less than 108

=> 108 – 25% of 108 = 108 – 27 = 81

Factory B = 144 → defective items = (2/9) of (108 + 81) = (1/4) of 189 = 42

Non-defective in:

C = 540 – 108 = 432

D = 240 – 81 = 159

B = 144 – 42 = 102

Total non- defective is = 432 + 159 + 102 = 693

Q50. Answer: (a) 23:32

Common Calculation –

According the question,

[8% + 12% + (2P + 5) % + P% + 15 %] = 100%

So, 2P + 5 + P = 100 – 15 – 12 – 8 = 65

Or, 3P = 60

Or, P = 60/3 = 20

So, Percentage distribution of number of items manufactured in factories A, B, C, D and E is 8%, 12%, [2 × 20 + 5] =45%, 20% and 15% respectively.

So, Item manufactured in factory A is 1200 × 8 /100 = 96

Similarly, we can calculate the number of items manufactured by others factory also, which is given in the table.

Factory	Number of items manufactured
A	96
B	144
C	540
D	240
E	180

Calculation

Total in A and E = A + E = 96 + 180 = 276

Total in B and D = B + D = 144 + 240 = 384

Ratio = 276 : 384 =23 : 32

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Q51. Answer: (a) P + 19

Common Calculation –

According the question,

[8% + 12% + (2P + 5) % + P% + 15 %] = 100%

So, 2P + 5 + P = 100 – 15 – 12 – 8 = 65

Or, 3P = 60

Or, P = 60/3 = 20

So, Percentage distribution of number of items manufactured in factories A, B, C, D and E is 8%, 12%, [2 × 20 + 5] =45%, 20% and 15% respectively.

So, Item manufactured in factory A is 1200 × 8 /100 = 96

Similarly, we can calculate the number of items manufactured by others factory also, which is given in the table.

Factory	Number of items manufactured
A	96
B	144
C	540
D	240
E	180

Calculation

Initial items

A = 96

D = 240

Transfer from D to A

25% of D = 25% of 240 = 60

New A = 96 + 60 = 156

Premium items in A = [20 + 5] % = 25% of 156 = 39 = P + 19

Q52. Answer: (a) 11256

Common Calculation –

According the question,

[8% + 12% + (2P + 5) % + P% + 15 %] = 100%

So, 2P + 5 + P = 100 – 15 – 12 – 8 = 65

Or, 3P = 60

Or, P = 60/3 = 20

So, Percentage distribution of number of items manufactured in factories A, B, C, D and E is 8%, 12%, [2 × 20 + 5] =45%, 20% and 15% respectively.

So, Item manufactured in factory A is 1200 × 8 /100 = 96

Similarly, we can calculate the number of items manufactured by others factory also, which is given in the table.

Factory	Number of items manufactured
A	96
B	144
C	540
D	240
E	180

Calculation

Factory C

Items = 540

Defect = 20% → 0.20 × 540 = 108

Non-defective = 432

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Profit = 432 × 8 = 3456

Factory D

Items = 240

Defect = 12.5% → [1/8] × 240 = 30

Non-defective = 210

Profit = 210 × 20 = 4200

Factory E

Items = 180

Defect = 20% → [1/5] × 180 = 36

Non-defective = 180 – 36 = 144

Profit = 144 × 25 = 3600

Total profit = 3456 + 4200 + 3600 =11256

Q53. Answer: (c) 74

Common Calculation –

According the question,

[8% + 12% + (2P + 5) % + P% + 15 %] = 100%

So, 2P + 5 + P = 100 – 15 – 12 – 8 = 65

Or, 3P = 60

Or, P = 60/3 = 20

So, Percentage distribution of number of items manufactured in factories A, B, C, D and E is 8%, 12%, [2 × 20 + 5] =45%, 20% and 15% respectively.

So, Item manufactured in factory A is 1200 × 8 /100 = 96

Similarly, we can calculate the number of items manufactured by others factory also, which is given in the table.

Factory	Number of items manufactured
A	96
B	144
C	540
D	240
E	180

Calculation

10% of C = 10% of 540 = 54

11.11% of E = (1/9) × 180 = 20

Total defective = 54 + 20 = 74 items

Q54. Answer: (c) x < y

I. $6x^2 – 72x + 216 = 0$

=> $6x^2 – 36x – 36x + 216 = 0$

=> $6x(x – 6) – 36(x – 6) = 0$

=> $(x – 6)(6x – 36) = 0$

=> $x = 6$

II. $y^2 – 18y + 81 = 0$

=> $y^2 – 9y – 9y + 81 = 0$

=> $y(y – 9) – 9(y – 9) = 0$

=> $(y – 9)(y – 9) = 0$

=> $y = 9$

Therefore x < y.

Q55. Answer: (e) x = y or the relation cannot be determined

Calculation:

I. 3x2 + 16x + 13 = 0

=> 3x2 + 3x + 13x + 13 = 0
=> 3x(x +1) + 13(x +1) = 0
=> x = - 13/3 or x = - 1
II. y2 + 9y – 36 = 0
=> y2 + 12y – 3y – 36 = 0
=> y(y + 12) – 3(y + 12) = 0
=> y = - 12 or y = 3
Comparison between x and y (via Tabulation):

Value of x	Value of y	Relation
-13/3	-12	x > y
-13/3	3	x < y
-1	-12	x > y
-1	3	x < y

Therefore Relation between x and y can't be established

Q56. Answer: (e) x = y or the relationship cannot be established

Given:
I. $x^2 – 14x + 33 = 0$
II. $y^2 – 20y + 99 = 0$
Calculation:
I. $x^2 – 14x + 33 = 0$
=> $x^2 – 11x – 3x + 33 = 0$
=> x(x – 11) – 3(x – 11) = 0
=> (x – 11)(x – 3) = 0
Then, x = 11 or x = 3
Now,
II. $y^2 – 20y + 99 = 0$
=> $y^2 – 11y – 9y + 99 = 0$
=> y(y – 11) – 9(y – 11) = 0
=> (y – 11)(y – 9) = 0
Then, y = 11 or y = 9
Now,
Comparison between x and y (via Tabulation):

Value of X	Relation	Value of Y
11	x = y	11
11	x > y	9
3	x < y	11
3	x < y	9

Therefore We can clearly see that the relationship cannot be established

Q57. Answer: (a) Rs. 26

Shortcut Trick
Initial CP for Suman = Rs. 100.
SP of Suman (to Rachna) = 100 × 1.10 = Rs. 110. (Profit = Rs. 10)
SP of Rachna (to Deepti) = 110 × 1.20 = Rs. 132.
SP of Deepti (to Suman) = 132 × (1 − 4/11) = 132 × 7/11 = Rs. 84. (Since 36.36% = 4/11)
Suman sold for Rs. 110 and bought back for Rs. 84, saving Rs. 26.
Therefore The correct answer is Rs. 26.

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Alternate Method

Given: Initial CP = Rs. 100, Profit1 = 10%, Profit2 = 20%, Loss3 = 36.36%.

Formulas: Profit = SP − CP | SP = CP × (100 + P%)/100 | 36.36% = 4/11.

=> Profit 1 (Suman to Rachna): 10% of 100 = Rs. 10.

=> SP for Rachna = 100 + 10 = Rs. 110.

=> SP for Deepti = 110 + 20% of 110 = 110 + 22 = Rs. 132.

=> Loss for Deepti = 36.36% of 132 = (4/11) × 132 = 4 × 12 = Rs. 48.

=> Price at which Suman buys back = 132 − 48 = Rs. 84.

=> Total Profit of Suman = (Initial SP − Buyback Price) + Profit 1 = (110 − 84) + 0 = Rs. 26. (Alternative view: Suman started with 100, ended with the earpiece + Rs. 26 cash; since earpiece value is relative, we consider the cash differential from the transaction cycles).

Therefore The correct answer is Rs. 26.

Additional Information

Percentage to Fraction Conversion

It is useful to remember that 9.09% = 1/11, hence 36.36% = 4/11. This simplifies calculations involving decimals.

Net Profit in Buyback

When a person sells an item and buys it back later, the net profit is the difference between the selling price and the re-acquisition price plus any profit made in the first sale.

Q58. Answer: (c) 9 : 7

Shortcut Trick

Total age 19 years ago = 86 − (19 × 2) = 48 years.

Ratio of Father : Son (19 years ago) = 5 : 1.

Total units = 6 → 48 years => 1 unit = 8 years.

Son's age 19 years ago = 8 years => Present age = 8 + 19 = 27 years.

Wife's age = 27 − 6 = 21 years.

Ratio (Son : Wife) = 27 : 21 = 9 : 7.

Therefore The correct answer is 9 : 7.

Alternate Method

Let the age of the son 19 years ago be x and the father's age be 5x.

=> Present age of son = x + 19

=> Present age of father = 5x + 19

=> (x + 19) + (5x + 19) = 86

=> 6x + 38 = 86

=> 6x = 48 => x = 8

=> Present age of Son = 8 + 19 = 27 years

=> Age of Wife = 27 − 6 = 21 years

=> Required Ratio = 27 : 21 = 9 : 7

Therefore The correct answer is 9 : 7.

Additional Information

Age Sum Property

If the sum of ages of 'n' persons is S, then 't' years ago the sum was S − (n × t).

Ratio & Proportion

Ratio is the simplest form of comparison between two quantities of the same unit. Always simplify ratios by dividing by the HCF.

Constant Age Difference

The difference between the ages of two individuals remains constant regardless of the number of years passed.

Q59. Answer: (b) Rs. 6600

Shortcut Trick

Sphere Surface Area $4\pi r^2 = 2464 \Rightarrow r^2 = 196 \Rightarrow r = 14$ m => Diameter = 28 m.

Cone Height = 28 − 4 = 24 m; Radius = 7 m => Slant height (l) = $\sqrt{(24^2 + 7^2)} = 25$ m.

CSA of Cone = $\pi rl = (22/7) \times 7 \times 25 = 550$ m².

Total Cost = 550 × 12 = Rs. 6600.

Therefore The correct answer is Rs. 6600.
Alternate Method
Given: Surface Area of Sphere = 2464 m², Cone Radius (r_c) = 7 m, Cone Height (h_c) = Sphere Diameter − 4.
Formula Used: Surface Area of Sphere = $4\pi r^2$; Curved Surface Area (CSA) of Cone = πrl; Slant height $l = \sqrt{(r^2 + h^2)}$.
Step 1: Find Sphere Diameter
=> $4 \times (22/7) \times r^2 = 2464$
=> $r^2 = (2464 \times 7) \div 88 = 28 \times 7 = 196$
=> Radius of sphere (r) = 14 m Therefore Diameter (D) = 28 m.
Step 2: Find Cone Dimensions
=> Height of cone (h_c) = 28 − 4 = 24 m.
=> Slant height (l) = $\sqrt{(7^2 + 24^2)} = \sqrt{(49 + 576)} = \sqrt{625} = 25$ m.
Step 3: Calculate Cost
=> CSA of cone = $(22/7) \times 7 \times 25 = 550$ m².
=> Cost of painting = 550×12 = Rs. 6600.
Therefore The correct answer is Rs. 6600.
Additional Information
Volume of Sphere and Cone
Volume of sphere = $(4/3)\pi r^3$ and Volume of right circular cone = $(1/3)\pi r^2 h$.
Total Surface Area of Cone
TSA of a cone includes the base area: TSA = $\pi rl + \pi r^2 = \pi r(l + r)$.
Pythagorean Triplets
Frequent triplets like (7, 24, 25) help in finding the slant height (l) quickly without square root calculations.

Q60. Answer: (b) 36100

Shortcut Trick
Since the Principal (P) and Time (T) are same, the difference in Amount is equal to the difference in Simple Interest.
Difference in Rate % for 2 years = (9% − 6%) × 2 = 6%
According to the question, 6% of P = Rs. 2166
P = $(2166 \div 6) \times 100 = 361 \times 100$ = Rs. 36100
Therefore The correct answer is Rs. 36100.
Alternate Method
Given: Principal = Rs. P, Time = 2 years, Rate_(Amit) = 9%, Rate_(Rahul) = 6%, Difference in Amount = Rs. 2166.
Formula Used: Simple Interest (SI) = $(P \times R \times T) \div 100$; Amount = P + SI
=> Amount_(Amit) = $P + (P \times 9 \times 2) \div 100 = P + 0.18P = 1.18P$
=> Amount_(Rahul) = $P + (P \times 6 \times 2) \div 100 = P + 0.12P = 1.12P$
=> Difference = $1.18P - 1.12P = 0.06P$
=> $0.06P = 2166$
=> $P = 2166 \div 0.06$
=> P = 36100
Therefore The correct answer is Rs. 36100.
Additional Information
Simple Interest Properties
Simple Interest is calculated only on the Principal amount. It remains constant for every year if the rate of interest is unchanged.
Difference between SI and CI
For the first year, Simple Interest and Compound Interest are the same. For 2 years, the difference is $P(R/100)^2$.
Effective Rate of Interest
In SI, the effective rate for 'T' years is simply (R × T)%. This helps in direct calculation of Interest or Amount.

Q61. Answer: (c) 75

Shortcut Trick
Initial average = 38, New average = 41.76, Increase = 3.76
Tournament average = $548 \div 7 \approx 78.28$

Using Alligation: (Initial matches) : (Tournament matches) = (78.28 − 41.76) : (41.76 − 38) = 36.52 : 3.76

Ratio = 3652 : 376 = 9.71 : 1 → Initial matches = 7 × 9.71 ≈ 68

Total matches = 68 + 7 = 75

Therefore The correct answer is 75 matches.

Alternate Method

Let n be the number of matches before the tournament.

=> Total runs before = 38 × n

=> Total runs after = 38n + 548

=> Total matches played = n + 7

=> New average = (38n + 548) ÷ (n + 7) = 41.76

=> 38n + 548 = 41.76n + 292.32

=> 41.76n − 38n = 548 − 292.32

=> 3.76n = 255.68

=> n = 255.68 ÷ 3.76 = 68

=> Total matches = 68 + 7 = 75

Therefore The correct answer is 75 matches.

Additional Information

Batting Average Formula

Batting Average = (Total runs scored) ÷ (Total number of times the batsman got out/Total innings played).

Net Deviation Method

Total Change = (New Count × New Avg) − (Old Count × Old Avg). This is useful for finding the value of new entries.

Weighted Average

Avg_(combined) = (n1A1 + n2A2) ÷ (n1 + n2), where n is the quantity and A is the average.

Q62. Answer: (b) 72 km

Shortcut Trick

Equating Distance formula: D = [S1 × S2 / (S1 − S2)] × ΔT

[V × (V − 6) / 6] × (8 / 60) = [V × (V + 4) / 4] × (4.5 / 60)

=> (V − 6) / 6 × 8 = (V + 4) / 4 × 4.5 => 4(V − 6) / 3 = 1.125(V + 4)

=> V = 60 km/hr. Distance = [60 × 54 / 6] × (8 / 60) = 72 km.

Therefore The correct answer is 72 km.

Alternate Method

Given: Case 1 speed = V − 6, Time = T + 8/60. Case 2 speed = V + 4, Time = T − 4.5/60.

Formula Used: Distance (D) = S1 × S2 × (Diff in Time) / (Diff in Speed)

=> D = [V(V − 6) / 6] × (8 / 60) --- (i)

=> D = [V(V + 4) / 4] × (4.5 / 60) --- (ii)

=> [V(V − 6) / 6] × 8 = [V(V + 4) / 4] × 4.5

=> 4 × (V − 6) / 3 = 1.125 × (V + 4) => 1.333(V − 6) = 1.125V + 4.5

=> 0.2083V = 12.5 => V = 60 km/hr

=> D = [60 × (60 − 6) / 6] × (8 / 60) = 540 × 8 / 60 = 72 km

Therefore The correct answer is 72 km.

Additional Information

Constant Distance Formula

When a person travels at two different speeds S1 and S2 and the difference in time is ΔT, Distance D = (S1 × S2 / |S1 − S2|) × ΔT.

Average Speed

If the distance is constant, Average Speed = 2S1S2 / (S1 + S2). If time is constant, Average Speed = (S1 + S2) / 2.

Relative Speed

For two objects moving in the same direction, Relative Speed = |S1 − S2|. In opposite directions, Relative Speed = S1 + S2.

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Q63. Answer: (b) 229

Common Calculation

Total number of employees in company A is 180.

Number of Graduate employees in Company A is 180 × 40/100 = 72

Number of Post graduate employees in company A is 180 – 72 = 108

Same way we can calculate other companies' data, which is given in table.

Company	Total number of employees [Graduate + Post Graduate]	Number of Graduate employees	Number of Post Graduate employees
A	180	72	108
B	220	132	88
C	240	168	72
D	160	80	80
E	150	120	30

Calculation

In Company B:

75% of graduates are males → 75% of 132 = 99

75% of postgraduates are females

→ So, males = 25% of 88 = 22

In Company C:

60% of graduates are females → 57.12% of 168 = 168 × [4/7]= 96

→ Male graduates = 168 – 96 = 72

50% of postgraduates are males → 50% of 72 = 36

Total male employees in B = 99 (graduates) + 22 (postgraduates) = 121

Total male employees in C = 72 (graduates) + 36 = 108

Final Answer: Total males in B + C = 121 + 108 = 229

Q64. Answer: (c) 50

Common Calculation

Total number of employees in company A is 180.

Number of Graduate employees in Company A is 180 × 40/100 = 72

Number of Post graduate employees in company A is 180 – 72 = 108

Same way we can calculate other companies' data, which is given in table.

Company	Total number of employees [Graduate + Post Graduate]	Number of Graduate employees	Number of Post Graduate employees
A	180	72	108
B	220	132	88
C	240	168	72
D	160	80	80
E	150	120	30

Calculation

Company D:

Total employees = 160

Male = Female => 80 males, 80 females

Postgraduates = 80

Males are 20 more than females

Let females = x

→ Males = x + 20

So, x + x + 20 = 80

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=> 2x + 20 = 80

→ 2x = 60 => x = 30, males = 50

Now, graduate females = Total females – PG females

= 80 – 30 = 50

Final Answer: 50 female graduate employees

Q65. Answer: (b) 69%

Common Calculation

Total number of employees in company A is 180.

Number of Graduate employees in Company A is 180 × 40/100 = 72

Number of Post graduate employees in company A is 180 – 72 = 108

Same way we can calculate other companies' data, which is given in table.

Company	Total number of employees [Graduate + Post Graduate]	Number of Graduate employees	Number of Post Graduate employees
A	180	72	108
B	220	132	88
C	240	168	72
D	160	80	80
E	150	120	30

Calculation

23 male graduates are transferred to A.

Total males in A = [72 × 50/100] + [75 × 108 /100]

= 36 + 81 = 117

New Male = 117 + 23 = 140

So, required percentage = [140 / (180 + 23)] × 100 = 68.96 = 69%

Q66. Answer: (e) 83

Common Calculation

Total number of employees in company A is 180.

Number of Graduate employees in Company A is 180 × 40/100 = 72

Number of Post graduate employees in company A is 180 – 72 = 108

Same way we can calculate other companies' data, which is given in table.

Company	Total number of employees [Graduate + Post Graduate]	Number of Graduate employees	Number of Post Graduate employees
A	180	72	108
B	220	132	88
C	240	168	72
D	160	80	80
E	150	120	30

Calculation

Company A

Graduate employees = 72

Male : Female = 2 : 1

=> Total parts = 3

→ Males = (2/3) × 72 = 48

→ Females = 24

Postgraduates = 108

25% are unmarried females → (25% of 108) = 27

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Company D
Graduates = 80
60% are married
→ Married = 0.6×80 = 48
→ So, unmarried graduates = 32
Postgraduates = 80
50% are females → 40 females
40% of these are married → Married females = 16
→ So, unmarried females = 40 – 16 = 24
Unmarried in A = 27 (postgraduate females)
Unmarried in D = 32 (graduates) + 24 (PG females) = 56
Final Answer: Total unmarried employees = 27 + 56 = 83

Q67. Answer: (a) 6

Common Calculation
Total number of employees in company A is 180.
Number of Graduate employees in Company A is 180 × 40/100 = 72
Number of Post graduate employees in company A is 180 – 72 = 108
Same way we can calculate other companies' data, which is given in table.

Company	Total number of employees [Graduate + Post Graduate]	Number of Graduate employees	Number of Post Graduate employees
A	180	72	108
B	220	132	88
C	240	154	66
D	160	80	80
E	150	120	30

Calculation
Total postgraduate employees in E = 30
20% of 30 = (20/100) × 30 = 6

Q68. Answer: (a) Rs. 19000

Shortcut Trick
Ratio of Profit = Σ(Investment × Time)
Let initial investments be 300 and 500 units.
Samay profit share = (300 × 3) + (330 × 9) = 900 + 2970 = 3870 units.
Sagar profit share = (500 × 8) + (425 × 4) = 4000 + 1700 = 5700 units.
Ratio Samay : Sagar = 3870 : 5700 = 129 : 190.
Given 129 units = Rs. 12900 => 1 unit = Rs. 100.
Sagar share = 190 × 100 = Rs. 19000.
Therefore The correct answer is Rs. 19000.
Alternate Method
Given → Initial Ratio = 3 : 5 | Samay increase = 10% | Sagar decrease = 15% | Samay Profit = Rs. 12900.
Formulas: Profit Share = Investment × Time Period | Ratio of Profits = (I1T1 + I2T2) : (I3T3 + I4T4)
=> Let initial investment of Samay be 300 and Sagar be 500.
=> Samay investment for first 3 months = 300.
=> Samay investment for next 9 months = 300 + 10% of 300 = 330.
=> Sagar investment for first 8 months = 500.
=> Sagar investment for next 4 months = 500 − 15% of 500 = 425.
=> Total investment-months (Samay) = (300 × 3) + (330 × 9) = 3870.
=> Total investment-months (Sagar) = (500 × 8) + (425 × 4) = 5700.

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=> Profit Ratio (Samay : Sagar) = 3870 : 5700 = 129 : 190.

=> 129 units = 12900 => 1 unit = 100.

=> Sagar Profit = 190 × 100 = 19000.

Therefore The correct answer is Rs. 19000.

Additional Information

Partnership Profit Distribution

In a Compound Partnership, the profit is divided based on the product of the Capital and the Time for which the capital is invested.

Ratio Adjustment

When percentages are involved in ratios, it is easier to multiply the original ratio by 100 (e.g., 3:5 becomes 300:500) to avoid working with decimals during calculations.

Q69. Answer: (c) 7 : 17

Shortcut Trick

Ratio of Speed of Boat 1 (u1) to Stream (v) = 9 : 5

Ratio of Boat 2 (u2) to Boat 1 (u1) = 4 : 3 => u2 = (4/3) × 9 = 12 units

Downstream Speed (D2) = u2 + v = 12 + 5 = 17 units

Upstream Speed (U2) = u2 − v = 12 − 5 = 7 units

Time ratio is inverse of Speed ratio for same distance: T_(down) : T_(up) = 7 : 17

Therefore The correct answer is 7 : 17.

Alternate Method

Given:

Ratio of Boat 1 (B1) to Stream (S) = 9 : 5

Ratio of Boat 2 (B2) to Boat 1 (B1) = 4 : 3

Calculations:

=> Let Speed of B1 = 9k and Speed of S = 5k

=> Speed of B2 = (4/3) × 9k = 12k

=> Downstream Speed of B2 = B2 + S = 12k + 5k = 17k

=> Upstream Speed of B2 = B2 − S = 12k − 5k = 7k

=> Time prop. to 1/Speed (for constant distance)

=> Time ratio (Down : Up) = Upstream Speed : Downstream Speed

=> Time ratio = 7k : 17k = 7 : 17

Therefore The correct answer is 7 : 17.

Additional Information

Downstream and Upstream Speed

Downstream Speed (D) = u + v and Upstream Speed (U) = u − v, where u is speed in still water and v is stream speed.

Time and Speed Relation

For a fixed distance, the ratio of time taken is inversely proportional to the ratio of speeds: T1/T2 = S2/S1.

Still Water Speed Calculation

Speed in still water (u) = (D + U) ÷ 2 and Speed of stream (v) = (D − U) ÷ 2.

Q70. Answer: (d) 27/70

Shortcut Trick

Probability of Anil hitting (P_A) = 6/7, Ben hitting (P_B) = 4/5, Carey hitting (P_C) = 3/4.

Probability of missing: P'_A = 1/7, P'_B = 1/5, P'_C = 1/4.

Required Probability = (P_A × P_B × P'_C) + (P_A × P'_B × P_C) + (P'_A × P_B × P_C)

=> (6/7 × 4/5 × 1/4) + (6/7 × 1/5 × 3/4) + (1/7 × 4/5 × 3/4) = (24 + 18 + 12) / 140 = 54 / 140 = 27 / 70.

Therefore The correct answer is 27/70.

Alternate Method

Given:

Probability of hit by Anil (A) = 6/7; Not hit (A') = 1 − 6/7 = 1/7

Probability of hit by Ben (B) = 4/5; Not hit (B') = 1 − 4/5 = 1/5

Probability of hit by Carey (C) = 3/4; Not hit (C') = 1 − 3/4 = 1/4

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Calculations:

=> Case 1 (A, B hit; C misses) = 6/7 × 4/5 × 1/4 = 24/140

=> Case 2 (A, C hit; B misses) = 6/7 × 1/5 × 3/4 = 18/140

=> Case 3 (B, C hit; A misses) = 1/7 × 4/5 × 3/4 = 12/140

=> Total Probability = (24/140) + (18/140) + (12/140)

=> Total Probability = 54/140 = 27/70

Therefore The correct answer is 27/70.

Additional Information

Independent Events

For independent events A and B, the probability of both occurring is P(A ∩ B) = P(A) × P(B).

Complementary Probability

The probability of an event not occurring is P(A') = 1 − P(A).

Mutually Exclusive Cases

When multiple distinct scenarios satisfy a condition, their individual probabilities are added to find the total probability.

Q71. Answer: (c) B

1. There are exactly three boxes between Box A and Box B.

Here, we have 2 Cases, i.e., Case 1 and Case 2.

Boxes	
Case 1	Case 2
A	B
B	A

2. Two boxes are placed between Box C and Box D, where Box D is positioned immediately above Box B.

Here, we have 3 Cases, i.e., Case 1, Case 2, and Case 2a.

Boxes		
Case 1	Case 2	Case 2a
A	D	C
	B	
D	C	D
B		B
	A	
C		
A		

3. Box E is placed immediately above Box A.

Boxes		
Case 1	Case 2	Case 2a
E	D	C
A		
	B	

D	C	D
B	E	B
	A	
C		
E		
A		

4. There is exactly one box between Box H and Box I, and Box I is placed somewhere below Box H.

Now, we can eliminate Case 2a. (Because there is no place for H and I) but we have one subcase of Case 2 i.e., Case2(i).

Boxes		
Case 1	Case 2	Case 2(i)
E	D	H
A	B	
		I
	C	D
D	E	B
B	A	
H	H	C
C		
	E	
I	I	A

5. Box F is positioned immediately above Box G.

Now, we can eliminate Case 2 and Case 2(i).

This is our final arrangement,

Boxes
Case 1
E
A
F
G
D
B
H
C
I

Hence, the correct answer is Box B.

Q72. Answer: (d) D - H

1. There are exactly three boxes between Box A and Box B.

Here, we have 2 Cases, i.e., Case 1 and Case 2.

Boxes	

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Case 1	Case 2
A	B
B	A

2. Two boxes are placed between Box C and Box D, where Box D is positioned immediately above Box B.
Here, we have 3 Cases, i.e., Case 1, Case 2, and Case 2a.

Boxes		
Case 1	Case 2	Case 2a
A	D	C
	B	
D	C	D
B		B
	A	
C		
A		

3. Box E is placed immediately above Box A.

Boxes		
Case 1	Case 2	Case 2a
E	D	C
A		
	B	
D	C	D
B	E	B
	A	
C		
E		
A		

4. There is exactly one box between Box H and Box I, and Box I is placed somewhere below Box H.
Now, we can eliminate Case 2a. (Because there is no place for H and I) but we have one subcase of Case 2 i.e., Case2(i).

Boxes		
Case 1	Case 2	Case 2(i)
E	D	H
A	B	
		I

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	C	D
D	E	B
B	A	
H	H	C
C		
	E	
I	I	A

5. Box F is positioned immediately above Box G.

Now, we can eliminate Case 2 and Case 2(i).

This is our final arrangement,

Boxes
Case 1
E
A
F
G
D
B
H
C
I

Except for D - H, in all other pairs, two boxes are kept between them.

Hence, the correct answer is D - H.

Q73. Answer: (b) I

1. There are exactly three boxes between Box A and Box B.

Here, we have 2 Cases, i.e., Case 1 and Case 2.

Boxes	
Case 1	Case 2
A	B
B	A

2. Two boxes are placed between Box C and Box D, where Box D is positioned immediately above Box B.

Here, we have 3 Cases, i.e., Case 1, Case 2, and Case 2a.

Boxes		
Case 1	Case 2	Case 2a
A	D	C
	B	

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D	C	D
B		B
	A	
C		
A		

3. Box E is placed immediately above Box A.

Boxes		
Case 1	Case 2	Case 2a
E	D	C
A		
	B	
D	C	D
B	E	B
	A	
C		
E		
A		

4. There is exactly one box between Box H and Box I, and Box I is placed somewhere below Box H.

Now, we can eliminate Case 2a. (Because there is no place for H and I) but we have one subcase of Case 2 i.e., Case2(i).

Boxes		
Case 1	Case 2	Case 2(i)
E	D	H
A	B	
		I
	C	D
D	E	B
B	A	
H	H	C
C		
	E	
I	I	A

5. Box F is positioned immediately above Box G.

Now, we can eliminate Case 2 and Case 2(i).

This is our final arrangement,

Boxes
Case 1
E

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A
F
G
D
B
H
C
I

Hence, the correct answer is I.

Q74. Answer: (e) More than four

1. There are exactly three boxes between Box A and Box B.

Here, we have 2 Cases, i.e., Case 1 and Case 2.

Boxes	
Case 1	Case 2
A	B
B	A

2. Two boxes are placed between Box C and Box D, where Box D is positioned immediately above Box B.

Here, we have 3 Cases, i.e., Case 1, Case 2, and Case 2a.

Boxes		
Case 1	Case 2	Case 2a
A	D	C
	B	
D	C	D
B		B
	A	
C		
A		

3. Box E is placed immediately above Box A.

Boxes		
Case 1	Case 2	Case 2a
E	D	C
A		
	B	

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D	C	D
B	E	B
	A	
C		
E		
A		

4. There is exactly one box between Box H and Box I, and Box I is placed somewhere below Box H.

Now, we can eliminate Case 2a. (Because there is no place for H and I) but we have one subcase of Case 2 i.e., Case2(i).

Boxes		
Case 1	Case 2	Case 2(i)
E	D	H
A	B	
		I
	C	D
D	E	B
B	A	
H	H	C
C		
	E	
I	I	A

5. Box F is positioned immediately above Box G.

Now, we can eliminate Case 2 and Case 2(i).

This is our final arrangement,

Boxes
Case 1
E
A
F
G
D
B
H
C
I

Hence, the correct answer is More than four.

Q75. Answer: (b) Box A is two boxes above Box G

1. There are exactly three boxes between Box A and Box B.

Here, we have 2 Cases, i.e., Case 1 and Case 2.

Boxes	
Case 1	Case 2

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A	B
B	A

2. Two boxes are placed between Box C and Box D, where Box D is positioned immediately above Box B.
Here, we have 3 Cases, i.e., Case 1, Case 2, and Case 2a.

Boxes		
Case 1	Case 2	Case 2a
A	D	C
	B	
D	C	D
B		B
	A	
C		
A		

3. Box E is placed immediately above Box A.

Boxes		
Case 1	Case 2	Case 2a
E	D	C
A		
	B	
D	C	D
B	E	B
	A	
C		
E		
A		

4. There is exactly one box between Box H and Box I, and Box I is placed somewhere below Box H.
Now, we can eliminate Case 2a. (Because there is no place for H and I) but we have one subcase of Case 2 i.e., Case2(i).

Boxes		
Case 1	Case 2	Case 2(i)
E	D	H
A	B	
		I
	C	D

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D	E	B
B	A	
H	H	C
C		
	E	
I	I	A

5. Box F is positioned immediately above Box G.

Now, we can eliminate Case 2 and Case 2(i).

This is our final arrangement,

Boxes
Case 1
E
A
F
G
D
B
H
C
I

Hence, the correct answer is Box A is two boxes above Box G.

Q76. Answer: (c) U have thrice the experience of V.

1. V joined the job in an even-numbered year but not in 1962.

Here, we have 3 Cases, i.e., Case 1, Case 2 and Case 3.

Years	**Experience (Years)**	**Persons**		
Case 1	Case 2	Case 3		
1955	70			
1958	67	V		
1962	63			
1969	56			
1974	51		V	
1983	42			
1997	28			
2008	17			V

2. The experience of U is a multiple of 17 but not less than 50.

Now, we can eliminate Case 2.

Years	**Experience (Years)**	**Persons**	
Case 1	Case 3		

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1955	70		
1958	67	V	
1962	63		
1969	56		
1974	51	U	U
1983	42		
1997	28		
2008	17		V

3. T joined the job five years earlier than U.

Years	**Experience (Years)**	**Persons**	
Case 1	Case 3		
1955	70		
1958	67	V	
1962	63		
1969	56	T	T
1974	51	U	U
1983	42		
1997	28		
2008	17		V

4. Three persons joined the job between the joining years of P and Q, where P joined before Q.

Here, we have 3 Cases, i.e., Case 1, Case 3 and Case 3a.

Years	**Experience (Years)**	**Persons**		
Case 1	Case 3	Case 3a		
1955	70			
1958	67	V	P	
1962	63	P		P
1969	56	T	T	T
1974	51	U	U	U
1983	42		Q	
1997	28	Q		Q
2008	17		V	V

5. Two persons joined the job between Q and W, and W did not join in the latest year.

Now, we can eliminate Case 1 and Case 3a.

Years	**Experience (Years)**	**Persons**
Case 3		
1955	70	
1958	67	P

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1962	63	W
1969	56	T
1974	51	U
1983	42	Q
1997	28	
2008	17	V

6. The experience of S is equal to the sum of the experiences of R and Q.

This is our final arrangement,

Years	Experience (Years)	Persons
Case 3		
1955	70	S
1958	67	P
1962	63	W
1969	56	T
1974	51	U
1983	42	Q
1997	28	R
2008	17	V

Hence, the correct answer is U have thrice the experience of V.

Q77. Answer: (e) More than four

1. V joined the job in an even-numbered year but not in 1962.

Here, we have 3 Cases, i.e., Case 1, Case 2 and Case 3.

Years	Experience (Years)	Persons		
Case 1	Case 2	Case 3		
1955	70			
1958	67	V		
1962	63			
1969	56			
1974	51		V	
1983	42			
1997	28			
2008	17			V

2. The experience of U is a multiple of 17 but not less than 50.

Now, we can eliminate Case 2.

Years	Experience (Years)	Persons	
Case 1	Case 3		
1955	70		
1958	67	V	

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1962	63		
1969	56		
1974	51	U	U
1983	42		
1997	28		
2008	17		V

3. T joined the job five years earlier than U.

Years	Experience (Years)	Persons	
Case 1	Case 3		
1955	70		
1958	67	V	
1962	63		
1969	56	T	T
1974	51	U	U
1983	42		
1997	28		
2008	17		V

4. Three persons joined the job between the joining years of P and Q, where P joined before Q.

Here, we have 3 Cases, i.e., Case 1, Case 3 and Case 3a.

Years	Experience (Years)	Persons		
Case 1	Case 3	Case 3a		
1955	70			
1958	67	V	P	
1962	63	P		P
1969	56	T	T	T
1974	51	U	U	U
1983	42		Q	
1997	28	Q		Q
2008	17		V	V

5. Two persons joined the job between Q and W, and W did not join in the latest year.

Now, we can eliminate Case 1 and Case 3a.

Years	Experience (Years)	Persons
Case 3		
1955	70	
1958	67	P
1962	63	W
1969	56	T

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1974	51	U
1983	42	Q
1997	28	
2008	17	V

6. The experience of S is equal to the sum of the experiences of R and Q.

This is our final arrangement,

Years	Experience (Years)	Persons
Case 3		
1955	70	S
1958	67	P
1962	63	W
1969	56	T
1974	51	U
1983	42	Q
1997	28	R
2008	17	V

Hence, the correct answer is More than four.

Q78. Answer: (d) 21 years

1. V joined the job in an even-numbered year but not in 1962.

Here, we have 3 Cases, i.e., Case 1, Case 2 and Case 3.

Years	Experience (Years)	Persons		
Case 1	Case 2	Case 3		
1955	70			
1958	67	V		
1962	63			
1969	56			
1974	51		V	
1983	42			
1997	28			
2008	17			V

2. The experience of U is a multiple of 17 but not less than 50.

Now, we can eliminate Case 2.

Years	Experience (Years)	Persons	
Case 1	Case 3		
1955	70		
1958	67	V	
1962	63		
1969	56		

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1974	51	U	U
1983	42		
1997	28		
2008	17		V

3. T joined the job five years earlier than U.

Years	Experience (Years)	Persons	
Case 1	Case 3		
1955	70		
1958	67	V	
1962	63		
1969	56	T	T
1974	51	U	U
1983	42		
1997	28		
2008	17		V

4. Three persons joined the job between the joining years of P and Q, where P joined before Q.

Here, we have 3 Cases, i.e., Case 1, Case 3 and Case 3a.

Years	Experience (Years)	Persons		
Case 1	Case 3	Case 3a		
1955	70			
1958	67	V	P	
1962	63	P		P
1969	56	T	T	T
1974	51	U	U	U
1983	42		Q	
1997	28	Q		Q
2008	17		V	V

5. Two persons joined the job between Q and W, and W did not join in the latest year.

Now, we can eliminate Case 1 and Case 3a.

Years	Experience (Years)	Persons
Case 3		
1955	70	
1958	67	P
1962	63	W
1969	56	T
1974	51	U
1983	42	Q

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1997	28	
2008	17	V

6. The experience of S is equal to the sum of the experiences of R and Q.

This is our final arrangement,

Years	Experience (Years)	Persons
Case 3		
1955	70	S
1958	67	P
1962	63	W
1969	56	T
1974	51	U
1983	42	Q
1997	28	R
2008	17	V

Hence, the correct answer is 21 years.

Q79. Answer: (d) R

1. V joined the job in an even-numbered year but not in 1962.

Here, we have 3 Cases, i.e., Case 1, Case 2 and Case 3.

Years	Experience (Years)	Persons		
Case 1	Case 2	Case 3		
1955	70			
1958	67	V		
1962	63			
1969	56			
1974	51		V	
1983	42			
1997	28			
2008	17			V

2. The experience of U is a multiple of 17 but not less than 50.

Now, we can eliminate Case 2.

Years	Experience (Years)	Persons	
Case 1	Case 3		
1955	70		
1958	67	V	
1962	63		
1969	56		
1974	51	U	U
1983	42		

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1997	28		
2008	17		V

3. T joined the job five years earlier than U.

Years	Experience (Years)	Persons	
Case 1	Case 3		
1955	70		
1958	67	V	
1962	63		
1969	56	T	T
1974	51	U	U
1983	42		
1997	28		
2008	17		V

4. Three persons joined the job between the joining years of P and Q, where P joined before Q.

Here, we have 3 Cases, i.e., Case 1, Case 3 and Case 3a.

Years	Experience (Years)	Persons		
Case 1	Case 3	Case 3a		
1955	70			
1958	67	V	P	
1962	63	P		P
1969	56	T	T	T
1974	51	U	U	U
1983	42		Q	
1997	28	Q		Q
2008	17		V	V

5. Two persons joined the job between Q and W, and W did not join in the latest year.

Now, we can eliminate Case 1 and Case 3a.

Years	Experience (Years)	Persons
Case 3		
1955	70	
1958	67	P
1962	63	W
1969	56	T
1974	51	U
1983	42	Q
1997	28	
2008	17	V

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6. The experience of S is equal to the sum of the experiences of R and Q.

This is our final arrangement,

Years	Experience (Years)	Persons
Case 3		
1955	70	S
1958	67	P
1962	63	W
1969	56	T
1974	51	U
1983	42	Q
1997	28	R
2008	17	V

Except for R, all others joined in even years.

Hence, the correct answer is R.

Q80. Answer: (c) S

1. V joined the job in an even-numbered year but not in 1962.

Here, we have 3 Cases, i.e., Case 1, Case 2 and Case 3.

Years	Experience (Years)	Persons		
Case 1	Case 2	Case 3		
1955	70			
1958	67	V		
1962	63			
1969	56			
1974	51		V	
1983	42			
1997	28			
2008	17			V

2. The experience of U is a multiple of 17 but not less than 50.

Now, we can eliminate Case 2.

Years	Experience (Years)	Persons	
Case 1	Case 3		
1955	70		
1958	67	V	
1962	63		
1969	56		
1974	51	U	U
1983	42		
1997	28		

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2008	17		V

3. T joined the job five years earlier than U.

Years	Experience (Years)	Persons	
Case 1	Case 3		
1955	70		
1958	67	V	
1962	63		
1969	56	T	T
1974	51	U	U
1983	42		
1997	28		
2008	17		V

4. Three persons joined the job between the joining years of P and Q, where P joined before Q.

Here, we have 3 Cases, i.e., Case 1, Case 3 and Case 3a.

Years	Experience (Years)	Persons		
Case 1	Case 3	Case 3a		
1955	70			
1958	67	V	P	
1962	63	P		P
1969	56	T	T	T
1974	51	U	U	U
1983	42		Q	
1997	28	Q		Q
2008	17		V	V

5. Two persons joined the job between Q and W, and W did not join in the latest year.

Now, we can eliminate Case 1 and Case 3a.

Years	Experience (Years)	Persons
Case 3		
1955	70	
1958	67	P
1962	63	W
1969	56	T
1974	51	U
1983	42	Q
1997	28	
2008	17	V

6. The experience of S is equal to the sum of the experiences of R and Q.

This is our final arrangement,

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Years	Experience (Years)	Persons
Case 3		
1955	70	S
1958	67	P
1962	63	W
1969	56	T
1974	51	U
1983	42	Q
1997	28	R
2008	17	V

Hence, the correct answer is S.

Q81. Answer: (b) Only II follows

The least possible Venn diagram for the given statements is as follows:

Conclusions:

I. At least some wiwo are deta → False (No direct relation between wiwo and deta given hence can't say.)

II. All cars being bike is a possibility → True (No direct relation between car and bike is given so all car may be bike)

Hence, only conclusion II follows.

Q82. Answer: (d) Neither I nor II follows

The least possible Venn diagram for the given statements is as follows:

Conclusions:

I. All Sitara can never be Suraj → False (No direct relation between Sitara and Suraj is given, hence can't say.)

II. At least some sitara are Planet → False (No direct relation between Sitara and Planet is given so we can't say anything.)

Hence, neither conclusion I nor II follows.

Q83. Answer: (a) Only II follows

The least possible Venn diagram for the given statements is as follows:

Conclusions:

I. All July are April → False (No march is April given, hence the part of July comes in March is never be April)

II. Some July are not April → True (part of July which comes in March is never be April)

Hence, only conclusion II follows.

Q84. Answer: (c) Q sits third to the left of the person from Chennai

1. The person connected to Delhi sits third to the left of the one who is seated immediately to the left of L.

2. Z, who is from Kolkata, is seated exactly between the persons from Delhi and Lucknow.

Here, we have 5 Cases, i.e., Case 1, Case 2, Case 3, Case 4, and Case 5.

3. The individual associated with Jaipur is seated next to V, who is positioned fourth to the right of Z.

Now, we can eliminate Case 5.

4. The person from Bhopal is seated immediately to the left of S, who is linked with Jaipur.

Now, we can eliminate Case 3 and Case 4.

5. M is linked with Chennai and is seated directly between the persons associated with Mumbai, and T.

6. V is not associated with Mumbai.

Now, we can eliminate Case 2.

This is our final arrangement,

Hence, the correct answer is Q sits third to the left of the person from Chennai.

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Q85. Answer: (d) Q - Kolkata

1. The person connected to Delhi sits third to the left of the one who is seated immediately to the left of L.
2. Z, who is from Kolkata, is seated exactly between the persons from Delhi and Lucknow.

Here, we have 5 Cases, i.e., Case 1, Case 2, Case 3, Case 4, and Case 5.

3. The individual associated with Jaipur is seated next to V, who is positioned fourth to the right of Z.

Now, we can eliminate Case 5.

4. The person from Bhopal is seated immediately to the left of S, who is linked with Jaipur.

Now, we can eliminate Case 3 and Case 4.

5. M is linked with Chennai and is seated directly between the persons associated with Mumbai, and T.
6. V is not associated with Mumbai.

Now, we can eliminate Case 2.

This is our final arrangement,

Except for Q - Kolkata, in all other pairs, the city of the person sits second to the right of the first person.

Hence, the correct answer is Q - Kolkata.

Q86. Answer: (c) T

1. The person connected to Delhi sits third to the left of the one who is seated immediately to the left of L.
2. Z, who is from Kolkata, is seated exactly between the persons from Delhi and Lucknow.

Here, we have 5 Cases, i.e., Case 1, Case 2, Case 3, Case 4, and Case 5.

3. The individual associated with Jaipur is seated next to V, who is positioned fourth to the right of Z.

Now, we can eliminate Case 5.

4. The person from Bhopal is seated immediately to the left of S, who is linked with Jaipur.

Now, we can eliminate Case 3 and Case 4.

5. M is linked with Chennai and is seated directly between the persons associated with Mumbai, and T.
6. V is not associated with Mumbai.

Now, we can eliminate Case 2.

This is our final arrangement,

Hence, the correct answer is T.

Q87. Answer: (c) V - Bhopal

1. The person connected to Delhi sits third to the left of the one who is seated immediately to the left of L.
2. Z, who is from Kolkata, is seated exactly between the persons from Delhi and Lucknow.

Here, we have 5 Cases, i.e., Case 1, Case 2, Case 3, Case 4, and Case 5.

3. The individual associated with Jaipur is seated next to V, who is positioned fourth to the right of Z.

Now, we can eliminate Case 5.

4. The person from Bhopal is seated immediately to the left of S, who is linked with Jaipur.

Now, we can eliminate Case 3 and Case 4.

5. M is linked with Chennai and is seated directly between the persons associated with Mumbai, and T.
6. V is not associated with Mumbai.

Now, we can eliminate Case 2.

This is our final arrangement,

Hence, the correct answer is V - Bhopal.

Q88. Answer: (d) None

1. The person connected to Delhi sits third to the left of the one who is seated immediately to the left of L.
2. Z, who is from Kolkata, is seated exactly between the persons from Delhi and Lucknow.

Here, we have 5 Cases, i.e., Case 1, Case 2, Case 3, Case 4, and Case 5.

3. The individual associated with Jaipur is seated next to V, who is positioned fourth to the right of Z.

Now, we can eliminate Case 5.

4. The person from Bhopal is seated immediately to the left of S, who is linked with Jaipur.

Now, we can eliminate Case 3 and Case 4.

5. M is linked with Chennai and is seated directly between the persons associated with Mumbai, and T.
6. V is not associated with Mumbai.

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Now, we can eliminate Case 2.

This is our final arrangement,

Hence, the correct answer is None.

Q89. Answer: (c) Three

Given Word: NOSTALGIA

Letters	N	O	S	T	A	L	G	I	A
Positional Value	14	15	19	20	1	12	7	9	1

Hence, the correct answer is Three.

Q90. Answer: (a) O

1) The one who is participating in Boxing have event in March. Only two persons have event after the one who have the event of Shooting. D takes part before May in Boxing.

	Case 1	Case 2	Case 3			
Month	Person	Sports	Person	Sports	Person	Sports
January					D	Boxing
February			D	Boxing		
March		Cycling		Cycling		Cycling
April	D	Boxing				
May		Shooting		Shooting		Shooting
June						
July						

2) Two persons go between D and J, who takes part in Archery. Case 2 is eliminated as it does not satisfy the given conditions.

	Case 1(a)	Case 1(b)	Case 3			
Month	Person	Sports	Person	Sports	Person	Sports
January	J	Archery			D	Boxing
February						
March		Cycling		Cycling		Cycling
April	D	Boxing	D	Boxing	J	Archery
May		Shooting		Shooting		Shooting
June						
July			J	Archery		

3) N have event before H and after D. Two persons between L and H. T have the event immediately after L. Case 1(a) and Case 1(b) are eliminated as it does not satisfy the given conditions.

Month	Person	Sports
January	D	Boxing
February	N	
March	H	Cycling
April	J	Archery
May		Shooting
June	L	
July	T	

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4) O takes part before June but after J. N doesn't have event of Chess and Tennis. T doesn't take part Chess.

The final arrangement is:

Month	Person	Sports
January	D	Boxing
February	N	Yoga
March	H	Cycling
April	J	Archery
May	O	Shooting
June	L	Chess
July	T	Tennis

N meeting is before J. One person meeting is between N and J. H meeting is before O. One person meeting is between H and O. Hence, O is related to T.

Q91. Answer: (c) Two

1) The one who is participating in Boxing have event in March. Only two persons have event after the one who have the event of Shooting. D takes part before May in Boxing.

	Case 1	Case 2	Case 3			
Month	Person	Sports	Person	Sports	Person	Sports
January					D	Boxing
February			D	Boxing		
March		Cycling		Cycling		Cycling
April	D	Boxing				
May		Shooting		Shooting		Shooting
June						
July						

2) Two persons go between D and J, who takes part in Archery. Case 2 is eliminated as it does not satisfy the given conditions.

	Case 1(a)	Case 1(b)	Case 3			
Month	Person	Sports	Person	Sports	Person	Sports
January	J	Archery			D	Boxing
February						
March		Cycling		Cycling		Cycling
April	D	Boxing	D	Boxing	J	Archery
May		Shooting		Shooting		Shooting
June						
July			J	Archery		

3) N have event before H and after D. Two persons between L and H. T have the event immediately after L. Case 1(a) and Case 1(b) are eliminated as it does not satisfy the given conditions.

Month	Person	Sports
January	D	Boxing
February	N	
March	H	Cycling

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April	J	Archery
May		Shooting
June	L	
July	T	

4) O takes part before June but after J. N doesn't have event of Chess and Tennis. T doesn't take part Chess.

The final arrangement is:

Month	Person	Sports
January	D	Boxing
February	N	Yoga
March	H	Cycling
April	J	Archery
May	O	Shooting
June	L	Chess
July	T	Tennis

Hence, Two persons go to the event between months D and J.

Q92. Answer: (c) N and T

1) The one who is participating in Boxing have event in March. Only two persons have event after the one who have the event of Shooting. D takes part before May in Boxing.

	Case 1		Case 2		Case 3	
Month	Person	Sports	Person	Sports	Person	Sports
January					D	Boxing
February			D	Boxing		
March		Cycling		Cycling		Cycling
April	D	Boxing				
May		Shooting		Shooting		Shooting
June						
July						

2) Two persons go between D and J, who takes part in Archery. Case 2 is eliminated as it does not satisfy the given conditions.

	Case 1(a)		Case 1(b)		Case 3	
Month	Person	Sports	Person	Sports	Person	Sports
January	J	Archery			D	Boxing
February						
March		Cycling		Cycling		Cycling
April	D	Boxing	D	Boxing	J	Archery
May		Shooting		Shooting		Shooting
June						
July			J	Archery		

3) N have event before H and after D. Two persons between L and H. T have the event immediately after L. Case 1(a) and Case 1(b) are eliminated as it does not satisfy the given conditions.

Month	Person	Sports

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January	D	Boxing
February	N	
March	H	Cycling
April	J	Archery
May		Shooting
June	L	
July	T	

4) O takes part before June but after J. N doesn't have event of Chess and Tennis. T doesn't take part Chess.

The final arrangement is:

Month	Person	Sports
January	D	Boxing
February	N	Yoga
March	H	Cycling
April	J	Archery
May	O	Shooting
June	L	Chess
July	T	Tennis

Hence, N and T represent the people who have event in February and July.

Q93. Answer: (b) Yoga

1) The one who is participating in Boxing have event in March. Only two persons have event after the one who have the event of Shooting. D takes part before May in Boxing.

	Case 1	Case 2	Case 3			
Month	Person	Sports	Person	Sports	Person	Sports
January					D	Boxing
February			D	Boxing		
March		Cycling		Cycling		Cycling
April	D	Boxing				
May		Shooting		Shooting		Shooting
June						
July						

2) Two persons go between D and J, who takes part in Archery. Case 2 is eliminated as it does not satisfy the given conditions.

	Case 1(a)	Case 1(b)	Case 3			
Month	Person	Sports	Person	Sports	Person	Sports
January	J	Archery			D	Boxing
February						
March		Cycling		Cycling		Cycling
April	D	Boxing	D	Boxing	J	Archery
May		Shooting		Shooting		Shooting
June						

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July			J	Archery		

3) N have event before H and after D. Two persons between L and H. T have the event immediately after L. Case 1(a) and Case 1(b) are eliminated as it does not satisfy the given conditions.

Month	Person	Sports
January	D	Boxing
February	N	
March	H	Cycling
April	J	Archery
May		Shooting
June	L	
July	T	

4) O takes part before June but after J. N doesn't have event of Chess and Tennis. T doesn't take part Chess.

The final arrangement is:

Month	Person	Sports
January	D	Boxing
February	N	Yoga
March	H	Cycling
April	J	Archery
May	O	Shooting
June	L	Chess
July	T	Tennis

Hence, T is taking part in .Yoga

Q94. Answer: (e) May

1) The one who is participating in Boxing have event in March. Only two persons have event after the one who have the event of Shooting. D takes part before May in Boxing.

	Case 1	Case 2	Case 3			
Month	Person	Sports	Person	Sports	Person	Sports
January					D	Boxing
February			D	Boxing		
March		Cycling		Cycling		Cycling
April	D	Boxing				
May		Shooting		Shooting		Shooting
June						
July						

2) Two persons go between D and J, who takes part in Archery. Case 2 is eliminated as it does not satisfy the given conditions.

	Case 1(a)	Case 1(b)	Case 3			
Month	Person	Sports	Person	Sports	Person	Sports
January	J	Archery			D	Boxing
February						
March		Cycling		Cycling		Cycling

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April	D	Boxing	D	Boxing	J	Archery
May		Shooting		Shooting		Shooting
June						
July			J	Archery		

3) N have event before H and after D. Two persons between L and H. T have the event immediately after L. Case 1(a) and Case 1(b) are eliminated as it does not satisfy the given conditions.

Month	Person	Sports
January	D	Boxing
February	N	
March	H	Cycling
April	J	Archery
May		Shooting
June	L	
July	T	

4) O takes part before June but after J. N doesn't have event of Chess and Tennis. T doesn't take part Chess.

The final arrangement is:

Month	Person	Sports
January	D	Boxing
February	N	Yoga
March	H	Cycling
April	J	Archery
May	O	Shooting
June	L	Chess
July	T	Tennis

Hence, U has event in May.

Q95. Answer: (c) R

Given Word - FABRICATING

3rd, 4th, 6th, and 7th letters from the left end of the word - B, R, C, and A

Thus, one meaningful word is formed - CRAB - A sea animal with a flat shell.

Please note: CARB is not an English word. It is the shortened form of the word carbohydrate.

Hence, the correct answer is R.

Q96. Answer: (e) Three

Row 1: A, B, C, D, E, F, G

Row 2: P, Q, R, S, T, U, V

1- G sits third to the left of A and neither of them sits at the end of the row.

2- The one who faces A sits immediately to the left of Q.

3- Only one person sits between P and Q.

4- U sits third to the right of P.

So, there will be two possible cases-

Case-1

Case-2

5- The one who faces U sits third to the left of C.

6- V sits immediately to the left of R. Three people sit between R and T.

7- The one facing V sits immediately to the left of B.
Case-1
Case-2
8- Only one person sits between D and B. F sits to the right of E.
9- The one who sits immediately to the left of U does not face E. So, from this case-1 will be eliminated.
So the final arrangement is;
Hence, three people sit between A and D.

Q97. Answer: (d) E, P

Row 1: A, B, C, D, E, F, G
Row 2: P, Q, R, S, T, U, V
1- G sits third to the left of A and neither of them sits at the end of the row.
2- The one who faces A sits immediately to the left of Q.
3- Only one person sits between P and Q.
4- U sits third to the right of P.
So, there will be two possible cases-
Case-1
Case-2
5- The one who faces U sits third to the left of C.
6- V sits immediately to the left of R. Three people sit between R and T.
7- The one facing V sits immediately to the left of B.
Case-1
Case-2
8- Only one person sits between D and B. F sits to the right of E.
9- The one who sits immediately to the left of U does not face E. So, from this case-1 will be eliminated.
So the final arrangement is;
Hence, E and P sit on extreme ends is the correct answer.

Q98. Answer: (d) V

Row 1: A, B, C, D, E, F, G
Row 2: P, Q, R, S, T, U, V
1- G sits third to the left of A and neither of them sits at the end of the row.
2- The one who faces A sits immediately to the left of Q.
3- Only one person sits between P and Q.
4- U sits third to the right of P.
So, there will be two possible cases-
Case-1
Case-2
5- The one who faces U sits third to the left of C.
6- V sits immediately to the left of R. Three people sit between R and T.
7- The one facing V sits immediately to the left of B.
Case-1
Case-2
8- Only one person sits between D and B. F sits to the right of E.
9- The one who sits immediately to the left of U does not face E. So, from this case-1 will be eliminated.
So the final arrangement is;
Hence, V faces G is the correct answer.

Q99. Answer: (e) U

Row 1: A, B, C, D, E, F, G
Row 2: P, Q, R, S, T, U, V
1- G sits third to the left of A and neither of them sits at the end of the row.
2- The one who faces A sits immediately to the left of Q.

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3- Only one person sits between P and Q.
4- U sits third to the right of P.
So, there will be two possible cases-
Case-1
Case-2
5- The one who faces U sits third to the left of C.
6- V sits immediately to the left of R. Three people sit between R and T.
7- The one facing V sits immediately to the left of B.
Case-1
Case-2
8- Only one person sits between D and B. F sits to the right of E.
9- The one who sits immediately to the left of U does not face E. So, from this case-1 will be eliminated.
So the final arrangement is;
Hence, U sits immediate to the right of one who faces F.

Q100. Answer: (d) Q

Row 1: A, B, C, D, E, F, G
Row 2: P, Q, R, S, T, U, V
1- G sits third to the left of A and neither of them sits at the end of the row.
2- The one who faces A sits immediately to the left of Q.
3- Only one person sits between P and Q.
4- U sits third to the right of P.
So, there will be two possible cases-
Case-1
Case-2
5- The one who faces U sits third to the left of C.
6- V sits immediately to the left of R. Three people sit between R and T.
7- The one facing V sits immediately to the left of B.
Case-1
Case-2
8- Only one person sits between D and B. F sits to the right of E.
9- The one who sits immediately to the left of U does not face E. So, from this case-1 will be eliminated.
So the final arrangement is;
Hence, Q sits third to the left of R.

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