SBI PO Prelims Memory Based Paper (Held On: 4 November 2023 Shift 4) (Previous Year Paper)

SBI Probationary Officer (PO) • 2023 • 100 questions • 60 minutes • Answer key and solutions

Take this paper as a timed mock test

Practise under exam conditions, then review your answers after you submit.

yourmocktest.com/pyq/sbi-po/sbi-po-prelims-memory-based-paper-held-on-4-november-2023-s…

Scan the QR code or click the link to open it.

ENGLISH LANGUAGE

Q1. Directions: Choose the most appropriate word to fill in the given blank.

Attackers are using technology to defraud users, steal their identity, and to engage in various other _____ activities like phone scams and posting fake videos on social media platforms.

(a) encouraging
(b) ethical
(c) scrambled
(d) regressive
(e) illegal

Q2. Directions: Choose the most appropriate word to fill in the given blank.

Prime Minister Narendra Modi urged global investors to explore investment opportunities in the country's energy sector, saying India is the most _____ place at present.

(a) exquisite
(b) forbidden
(c) opportune
(d) permitted
(e) ambiguous

Q3. Directions: Choose the most appropriate word to fill in the given black.

The Budget aims to fulfil the long-term _____ goals of the country along with being the world's fastest-growing large economy.

(a) implausible
(b) challenging
(c) obnoxious
(d) sustainable
(e) untenable

Q4. Directions: Choose the most appropriate word to fill in the given blank.

He is an arrogant businessman and he likes to _____ his net worth, it makes him seem like he has a lot of money in his bank account.

(a) exaggerate
(b) propel
(c) compensate
(d) understate
(e) trivialize

Q5. Directions: In each of the questions given below, four words are given in bold. These four words may or may not be in their correct positions. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of words that replace each other. If the sentence is correct as it is, select '5' as your option.

The world-famous heritage (A) sites of Ajanta and Ellora, and other officials (B) spots in the district will also remain shut on Saturdays and Sundays, while marriages (C) will not be allowed to be held in function halls during the lockdown period, tourist (D) said.

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

Q6. Directions: In the question given below, four words are given in bold. These four words may or may not be in their correct positions. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of words that replace each other. If the sentence is correct as it is, select '5' as your option.

Students (A) professional development is necessary (B) to innovate and engage (C) creatively with their continuing. (D)

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

Q7. Directions: In each of the questions given below, four words are given in bold. These four words may or may not be in their correct positions. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of words that replace each other. If the sentence is correct as it is, select '5' as your option.

A well-known adage in the teacher (A) world is that technology (B) cannot replace a teacher but a education (C) who uses technology will replace (D) one who does not.

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

Q8. 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 their 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 study also different (A) the effect (B) of Head Start programs that use a examined (C) educational approach (D).

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

Q9. 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 their 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.

In the rural concern (A), there was less areas (B) with traffic, although an occasional (C) farm dog forced him to practice (D) his sprints.

(a) A - B

(b) B - C
(c) C - D
(d) D - A
(e) No rearrangement

Q10. Directions: The given sentence is divided into four parts that are 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.

When I went wine tasting (A) with my friends the other (B) day I had the most tastiest (C) wine that I have ever had. (D) No error (E)

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

Q11. Directions: The given sentence is divided into four parts that are 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.

As it is to be superior than (A) static graphics, animation is (B) being increasingly employed in (C) technology-based learning resources. (D) No error (E)

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

Q12. Directions: The given sentence is divided into four parts that are 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.

The transition to a circular economy (A) depend on how individuals and (B) organisations learn to innovate and apply (C) what they have learned in the real world. (D) No error (E)

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

Q13. Directions: The given sentence is divided into four parts that are 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.

This was only possible because India (A) has made financial inclusion a priority, (B) investing in a digital ID system called Aadhaar (C) and creating innovation platforms for digital banking. (D) No error (E)

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

Q14. Directions: The following sentence has been split into five segments. Identify the segment that contains a grammatical error. If there is no error, mark 'No error' as your answer.

Among the government's earliest attempts (A) /to transform household energy consumption (B)/was the solar cooker fabricated in the early 1950s, (C)/amid great uncertainty in food security and energy self-sufficiency. (D)/No error (E)

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

YourMockTest.com — Free Study Material

Directions

Rearrange the following five sentences/group of sentences (A), (B), (C), (D), and (E) in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

A. All of these have of late been areas of concern for the regulator.

B. At the meetings, governor Shaktikanta Das asked banks to strengthen their capital and provisioning positions.

C. The other issues discussed in the meeting included an assessment of the current economic situation and outlook.

D. The meetings were also attended by deputy governors of RBI.

E. The governor of the Reserve Bank of India held meetings with the chiefs of public sector banks and some private banks.

Q15. Which of the following should be the FIRST sentence after the arrangement?

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

Q16. Which of the following should be the THIRD sentence after the arrangement?

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

Q17. Which of the following should be the FOURTH sentence after the arrangement?

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

Q18. Which of the following should be the FIFTH sentence after the arrangement?

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

Q19. Which of the following should be the SECOND sentence after the arrangement?

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

Q20. Directions: Given below is a word, followed by three sentences that consist of that word. Identify the sentence(s) that best express(es) the meaning of the word. Choose option 5 'None of the above' if the word is not suitable in any of the sentences.

INTIMIDATING

A. The state court refused to intimidating the local court’s decision.

B. Learning to use a computer was intimidating for the retiree as she was afraid she wouldn't be able to understand the new technology.

C. As the stormy weather began to worsen, the airplane began to intimidating back and forth.

(a) Only C
(b) Both A and C

YourMockTest.com — Free Study Material

(c) Only A
(d) Only B
(e) None of the above

Q21. Directions: Given below is a word, followed by three sentences that consist of that word. Identify the sentence(s) that best express(es) the meaning of the word. Choose option 5 'None of the above' if the word is not suitable in any of the sentences.

OPTIMISTIC

A. Optimistic about the future, the recent graduate just knew that he would find a job soon.

B. The effects of the drought were so optimistic that everyone was without clean water.

C. Though we haven't won a game all year, our team is still optimistic that today we will win.

(a) Only A
(b) Both A and C
(c) Only B
(d) Both B and C
(e) None of the above

Q22. Direction: Evaluate the following word, accompanied by three sentences containing it. Determine the sentence(s) that accurately convey the meaning of the given word.

INCENTIVE

A. Consider taking a break to gain a fresh incentive on the problem.

B. The company offers a cash incentive to employees who meet their sales targets.

C. The company conducted incentive market research to understand customer preferences.

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

Q23. Direction: Evaluate the following word, accompanied by three sentences containing it. Determine the sentence(s) that accurately convey the meaning of the given word.

DISPATCH

A. Please dispatch these documents to the client as soon as possible.

B. The swift dispatch of the paramedics saved a life.

C. Can you dispatch this email to the entire team?

(a) Only A
(b) Only C
(c) Only B
(d) Both A & B
(e) All A, B & C

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.

A recent study on the impact of diet on health has highlighted the profound influence that our food choices have on our overall well-being. This study, conducted over several years and encompassing a diverse group of participants, underscores the importance of balanced nutrition. The research shows that diets rich in fruits, vegetables, and lean proteins can significantly reduce the risks of chronic diseases such as heart disease, diabetes, and obesity. The findings also suggest that incorporating a variety of foods, and avoiding excessive amounts of processed foods and sugars, is crucial for maintaining optimal health.

The study delves deeper into how different types of diets affect various demographics. For instance, younger adults showed remarkable improvements in energy levels and mental health by following a Mediterranean-style diet, which is rich in olive oil, fish, and whole grains. On the other hand, older adults benefited greatly from a diet low in sodium and high in potassium, which helped in managing hypertension and enhancing muscle strength. These tailored dietary recommendations highlight the need for personalized diet plans that cater to individual health requirements and lifestyle preferences.

YourMockTest.com — Free Study Material

Moreover, the research also addressed the psychological aspects of eating habits, suggesting that diet not only affects physical health but also mental well-being. Participants who consumed a balanced diet reported feeling more positive and less prone to depression and anxiety. This connection between diet and mental health is paving the way for integrative dietary approaches that encompass not only physical but also mental health components. The study advocates for more educational programs that inform the public about the mental health benefits of a nutritious diet, thereby encouraging a holistic approach to health that integrates both mind and body wellness.

Q24. What does the word profound most likely mean in the context of the passage?

(a) Insignificant
(b) Superficial
(c) Deep
(d) Unnoticeable
(e) Sudden

Q25. In the passage, the term holistic is used to describe an approach to health. What does "holistic" mean?

(a) Comprehensive
(b) Fragmented
(c) Focused on a single aspect
(d) Traditional
(e) Quick-fix

Q26. What is the primary focus of the passage on diet studies?

(a) The effectiveness of low-carb diets
(b) The impact of diet on overall health
(c) The popularity of vegan diets
(d) The best sources of dietary protein
(e) How to cook healthy meals

Q27. According to the passage, why is it important to consider a holistic approach to diet?

(a) To focus solely on physical health
(b) To incorporate various health aspects, including mental and emotional well-being
(c) To promote weight loss
(d) To improve cooking skills
(e) To increase the consumption of vitamins

Q28. What role do dietary fibers play according to the passage?

(a) They are irrelevant to holistic health
(b) They help in only weight management
(c) They contribute to various aspects of health including digestion and heart health
(d) They are harmful in large quantities
(e) They are only found in meat products

Q29. Which of the following statements is TRUE according to the passage?

(a) A high-carb diet is ideal for all.
(b) Nutritional science supports a one-size-fits-all diet approach.
(c) Diets should balance carbohydrates, proteins, and fats.
(d) Nutrients have no impact on mental health.
(e) Diet plans should exclude all fats.

Q30. Which of the following statements is FALSE according to the passage?

(a) Dietary habits significantly influence individual health.
(b) A balanced diet should include a variety of nutrients.
(c) All diets should primarily focus on weight loss.
(d) Dietary fibers contribute to health.
(e) A holistic diet approach is beneficial for overall well-being.

YourMockTest.com — Free Study Material

QUANTITATIVE APTITUDE

Directions

Directions: Study the following directions shows the percentage distribution of the number of students (Male + Female) studying in five different colleges.

Total number of students (Male + Female) studying in college = 3000

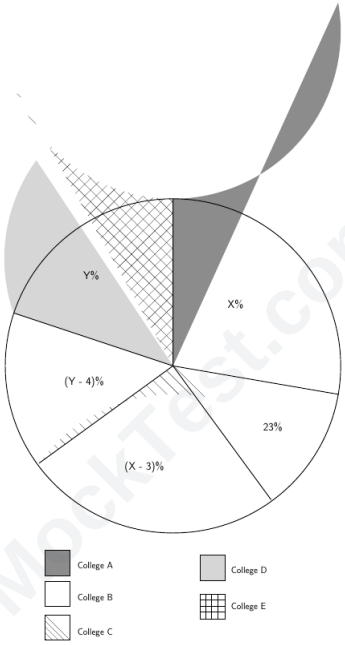


Table shows the ratio between the number of males to females studying in the five different colleges A, B, C, D and E.

Name of the colleges	Ratio between number of males to females
A	2: 1
B	13: 10
C	5: 4
D	3: 2
E	4: 1

Note:

i) Number of students studying in college E = 720

Q31. If 60% and 80% of the males studying in college A and C respectively are form city P and remaining are from city Q. If 25% and 30% of the number of females studying in college A and C respectively are from city P. Find the number of students from college A and C are from city Q.

(a) 420
(b) 472
(c) 469
(d) 458
(e) 480

Q32. If 1/3 rd of the males studying in college B and 1/6 th of the females from college B are cleared in distinction and from the remaining total number of students secured first class and second class if ratio between number of students studying first class to second class are in the ratio 2 : 1. Find the number of students cleared in first class.

(a) 390
(b) 350
(c) 340
(d) 320

YourMockTest.com — Free Study Material

(e) 370

Q33. If exam fees for males in semester exams is Rs. 350 and females is Rs. 250 then find the total money collected for the number of students studying in the college D.

(a) Rs. 124000
(b) Rs. 164000
(c) Rs. 186000
(d) Rs. 172000
(e) Rs. 196000

Directions

Directions: Study the following directions shows the percentage distribution of the number of students (Male + Female) studying in five different colleges.

Total number of students (Male + Female) studying in college = 3000

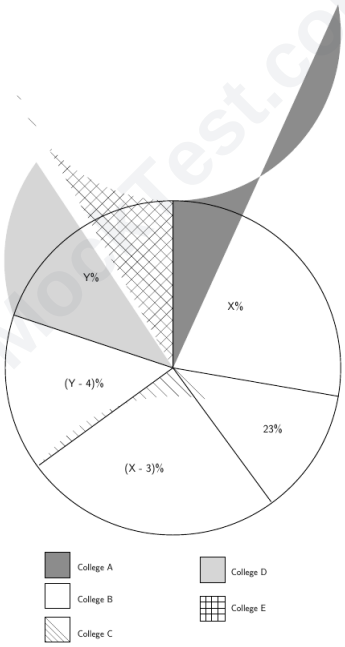


Table shows the ratio between the number of males to females studying in the five different colleges A, B, C, D and E.

Name of the colleges	Ratio between number of males to females
A	2: 1
B	13: 10
C	5: 4
D	3: 2
E	4: 1

Note:

i) Number of students studying in college E = 720

Q34. Find the difference between the sum of the 1/3rd and 1/6 th of the number of males studying in college D and E respectively and the sum of the 1/6 th and 1/8 th of the number of females studying in college D and E respectively.

(a) 172
(b) 124
(c) 156
(d) 158
(e) 154

Q35. Find the ratio between the number of males studying in college C and D to the number of females studying in college A and B.

(a) 62: 13
(b) 61 : 48
(c) 67`: 39
(d) 75: 17
(e) 58: 23

Q36. In a survey of prime membership users on four major platforms. It is found that out of the total prime members 20% are on Amazon Prime, 50% of the remaining are on Netflix premium and 30% of the rest are on Hotstar premium and rest 6300 are on Youtube premium. Then find the total number of prime members on these major platforms.

(a) 32500
(b) 17500
(c) 27000
(d) 22500
(e) None of these

Q37. 7 years ago, the ratio of the ages of Sophia and Ava was 7 : 9. The present age of Emma is 8 years less than the present age of Sophia. If the present age of Emma's father is 45 years and 25 years more than his daughter. Then, the value of 50% of the present age of Ava is –

(a) 18 years
(b) 17 years
(c) 21 years
(d) 20 years
(e) None of these

Q38. In the given question, two equations numbered I and II are given. Solve both the equations and mark the appropriate answer.

I. $2x^2 – 9x + 9 = 0$

II. $2y^2 – 17y + 30 = 0$

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

Q39. In the given question, two equations numbered I and II are given. Solve both the equations and mark the appropriate answer.

I. $x^2 – 10x + 24 = 0$

II. $2y^2 – 29y + 105 = 0$

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

Q40. In the given question, two equations numbered I and II are given. Solve both the equations and mark the appropriate answer.

I. $x^2 – 42x + 440 = 0$

II. $y^2 – 34y + 288 = 0$

(a) $x > y$
(b) $x < y$
(c) $x \geq y$
(d) $x \leq y$

YourMockTest.com — Free Study Material

(e) x = y or the relationship between x and y cannot be established.

Q41. In the given question, two equations numbered I and II are given. Solve both the equations and mark the appropriate answer.

I. $25x^2 – 30x + 8 = 0$

II. $25y^2 – 50y + 24 = 0$

(a) x > y
(b) x < y
(c) x ≥ y
(d) x ≤ y
(e) x = y or relationship between x and y cannot be established.

Q42. In the given question, two equations numbered I and II are given. Solve both the equations and mark the appropriate answer.

I. $x^2 – 44x + 483 = 0$

II. $y^2 – 27y + 182 = 0$

(a) x > y
(b) x < y
(c) x ≥ y
(d) x ≤ y
(e) x = y or relationship between x and y cannot be established.

Q43. The volume of a cube and a cuboid are 216 $cm^3$and 480 cm^3 respectively. If the length and breadth of cuboid are in the ratio 5 : 4 and the height of cuboid is equal to the length of side of cube, then find the ratio of diagonal of cube to the diagonal of cuboid.

(a) $6\sqrt{3} : 5\sqrt{2}$
(b) $4\sqrt{3} : 10\sqrt{2}$
(c) $7\sqrt{3} : 5\sqrt{2}$
(d) $6\sqrt{3} : 10\sqrt{2}$
(e) $4\sqrt{3} : 5\sqrt{2}$

Q44. A person mixed milk and water in 2 containers in the ratio 3 : 4 and 5 : 6 respectively then he mixed both the mixture in the third container and the ratio of milk and water in the resultant mixture becomes 4 : 5. Total quantity of mixtures is 18 litres. Find the quantity of milk in the 1st container.

(a) 7 L
(b) 4 L
(c) 3 L
(d) 5 L
(e) none of these

Directions

Directions: The given table shows the details about the number of orders received, Number of orders packed and number of orders shipped by five different companies A, B, C, D and E.

Companies	Total orders received	Percentage of orders packed	Percentage of orders shipped
A	450	(x + 10)%	60%
B	600	(x + y)%	30%
C	700	(2x - 5)%	(y + 5)%
D	•	(1.5y + 5)%	•
E	400	•	(x - 5)%

Note:

i)Average of total received in all the companies is 530

ii)Total orders Received = Number of orders packed + Number of orders shipped

Q45. If 1/5th of the orders packed in company E and 1/3rd of the orders shipped in company B are international orders and the remaining are national orders, find the sum of the 1/3rd of national orders packed in company E and 2/3rd of the national orders shipped in company B.

(a) 180
(b) 170
(c) 140
(d) 160
(e) 120

Directions

Directions: The given table shows the details about the number of orders received, Number of orders packed and number of orders shipped by five different companies A, B, C, D and E.

Companies	Total orders received	Percentage of orders packed	Percentage of orders shipped
A	450	(x + 10)%	60%
B	600	(x + y)%	30%
C	700	(2x - 5)%	(y + 5)%
D	•	(1.5y + 5)%	•
E	400	•	(x - 5)%

Note:

i)Average of total received in all the companies is 530

ii)Total orders Received = Number of orders packed + Number of orders shipped

Q46. If packing cost for each order in company A is Rs. 15 and shipping cost for the each orders in the same company is Rs. 30. Find the total amount collected for 1/5th of the packed orders and 2/3rd of the shipped orders.

(a) 5120
(b) 5780
(c) 5940
(d) 5430
(e) 5760

Q47. Find the ratio between the number of orders packed in company A and E respectively to the number of orders shipped in the company A and E.

(a) 49: 53
(b) 51: 53
(c) 48: 37
(d) 13: 17
(e) 43: 53

Q48. If the number of orders packed in company D is increased by 20% and the number of orders shipped in company D is increased by x%. Total orders packed and shipped in company D is 635, then find the value of x.

(a) 20%
(b) 25%
(c) 30%
(d) 40%
(e) 35%

Q49. Number of orders packed in company F is 25 more than the number of orders packed in company D and number of orders shipped in company F is 20 more than the number of orders shipped in company B. Then find the difference between the number of orders packed and the number of orders shipped by the company F.

(a) 190

YourMockTest.com — Free Study Material

(b) 130
(c) 180
(d) 150
(e) 160

Q50. A sum distributed between A, B and C in the ratio of 7 : 13 : 17. If A's share is x more than 1/3^(rd)of A's share. B's share is y more than 1/2^(nd) of B's share and C's share is z more than 2/3^(rd) of C's share. Find the ratio of x : y : z?

(a) 28 : 39 : 14
(b) 28 : 39 : 34
(c) 28 : 29 : 34
(d) 26 : 29 : 34
(e) 27 : 31 : 45

Q51. Two traders Ram and Shyam buy two goods for Rs. 1000 and Rs. 2000 respectively. Ram marks his goods up by x%, while Shyam marks his goods up by 2x% and offers the discount of x%. If both make the same profit, then find the value of x?

(a) 12%
(b) 12.5%
(c) 25%
(d) 30%
(e) 10%

Q52. In each of the following number series, the wrong number is given, find out that number.

8, 17, 35, 71, 145, 287, 575

(a) 145
(b) 35
(c) 575
(d) 287
(e) 71

Q53. Find the wrong number in the following series.

210, 206, 197, 181, 156, 121, 71

(a) 71
(b) 121
(c) 181
(d) 156
(e) 206

Q54. In each of the following number series, a wrong number is given, find out that number.

3, 4, 4.5, 11, 25, 80, 269.5

(a) 4
(b) 4.5
(c) 11
(d) 80
(e) 269.5

Q55. Direction: In the following number series, a wrong number is given. Find out the wrong number.

16, 17, 38, 123, 510, 2565

(a) 17
(b) 2565
(c) 38
(d) 510
(e) 123

YourMockTest.com — Free Study Material

Q56. Direction: In the following number series, a wrong number is given. Find out the wrong number.

6, 7, 11, 38, 54, 179, 214

(a) 179
(b) 214
(c) 54
(d) 38
(e) 11

Q57. Mohan invested Rs. 5000 at x% simple interest for 2 years. After 2 years, he noticed that if he has given the money on compound interest then he would have got Rs. 72 more as interest. Find the rate of interest?

(a) 10%
(b) 15%
(c) 12%
(d) 20%
(e) None of these

Q58. A boat can travel 40 km upstream in the same time as it travels 60 km downstream. It can travel 10 km each in upstream and downstream in 25/12 hours. Find the time required to travel 24 km each in upstream and downstream.

(a) 5 hours
(b) 3 hours
(c) 2.5 hours
(d) 10 hours
(e) 8 hours

Q59. Amit develops 10 questions a week and is given Rs.70 for one question. Vishal develops 2 questions per day and is paid Rs. 80 for one question. If both of them worked for 2 weeks, what will be the total amount paid to them?

(a) Rs. 3650
(b) Rs. 3240
(c) Rs. 3140
(d) Rs. 3640
(e) Rs. 3680

Q60. Direction: The following question is accompanied by two statements (I) and (II). You have to determine which statements(s) is/are sufficient/necessary to answer the questions.

Find the average number of both males and females in the company if 60% of the total male and 40% of the total female participated in an event.

Statement I: The number of female participated in the event is 120. There is more than 300 male in the company.

Statement II: The number of females in the company is 25% more than the number of males who participated in the event.

(a) The statement I alone is sufficient to answer the question, but the statement II alone is not sufficient.
(b) The statement II alone is sufficient to answer the question, but the statement I alone is not sufficient.
(c) Both the statements I and II together are needed to answer the question.
(d) Either statement I alone or statement II alone is sufficient to answer the question.
(e) Neither statement I nor statement II is sufficient to answer the question.

Q61. Directions: Each of the following questions consists of 3 statements A, B, and C. You have to determine that which of the following statement/statements are not necessary to answer the question.

Find the two-digit number xy.

I. The number obtained by interchanging the digits of the number is less than the original number by 18.

II. The sum of the digits is 8.

III. The difference of digit is 2.

(a) Only statement I
(b) Statement I and statement III
(c) Either I or III

YourMockTest.com — Free Study Material

(d) Statement II and statement III
(e) Data insufficient

Q62. The following question is accompanied by two statements (I) and (II). You have to determine which statement(s) is/are sufficient/necessary to answer the questions.

In how many days will A complete the work?

I. Ratio of efficiency of A, B and C is 5 : 6 : 9. A takes 8 days more than C to finish the work

II. A and B working together can complete the work in 10 days, C is twice efficient than A

(a) The data in both the statements I and II together are necessary to answer the question
(b) The data in statement I alone or in statement II alone is sufficient to answer the question.
(c) The data in both statements I and II together are not sufficient to answer the question.
(d) The data in statement II alone is sufficient to answer the question, while the data in I alone is not sufficient to answer the question.
(e) The data in statement I alone is sufficient to answer the question, while the data in II alone is not sufficient to answer the question.

Q63. Direction: "The following question is accompanied by two statements (I) and (II). You have to determine which statements(s) is/are sufficient/necessary to answer the questions.

What will be the length of Train A?

Statement I: The Train A crosses a man running at the speed of 10 m/s in the opposite direction in 10 sec and the speed of the train is x m/s.

Statement II: Train B which has double the speed of Train A and crosses the pole in 5 sec and the length of the Train B is 500 m.

(a) The statement I alone is sufficient to answer the question, but the statement II alone is not sufficient.
(b) The statement II alone is sufficient to answer the question, but the statement I alone is not sufficient.
(c) Both the statements I and II together are needed to answer the question.
(d) Either statement I alone or statement II alone is sufficient to answer the question.
(e) Neither statement I nor statement II is sufficient to answer the question.

Q64. The average weight of x number of people is 33 kg. The weights of all x number of people are in arithmetic progression. If the weight of the lightest is 5 kg and the weight of the heaviest is x kg, then find the value of x.

(a) 59
(b) 63
(c) 67
(d) 61
(e) 65

Q65. A and B started a business with the capital of Rs. 70000 and Rs. 20000 respectively. They decided to use 5% of the total profit for Charity and they equally add 5% of the total profit in their investment. Remaining profit is distributed among them as per their investment ratio. If they earn Rs. 10000 in the first year and Rs. 8044.44 in the second year, then find the total profit of A.

(a) 10540
(b) 13260
(c) 12620
(d) 13456
(e) None of the above

REASONING ABILITY

Directions

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

Six persons Hema, Nina, Keshav, Rani, Sam, and Tabu are sitting in a linear row. They all like different games Battlefield, Combat, Duty, Free Fire, Minecraft, and Pubg. All of them are facing north direction. Nina likes Minecraft and not more than two persons are sitting to the left of Nina. One person sits between Nina and Hema. The person who likes Pubg is sitting to the

YourMockTest.com — Exam Study Material

immediate right of Keshav. The number of persons sitting between Rani and Keshav is one less than the number of persons sitting to the right of Hema. Keshav and the person who like Pubg are not sitting at the extreme end. The person who likes Duty is sitting immediately right of Sam. Two persons sit between the person who likes Combat and Duty. The person who likes Free Fire is not an immediate neighbor of the one who likes Duty.

Q66. Which of the following statement is not true?

(a) Two persons are sitting between the one who likes Pubg and Free fire
(b) Hema is an immediate neighbor of the one who likes Free fire
(c) Tabu likes Duty
(d) Sam is an immediate neighbor of the one who likes Duty.
(e) Nina and the one who likes Combat are immediate neighbors.

Q67. Which of the following combination is true?

(a) Tabu - Free fire
(b) Sam - Duty
(c) Hema - Battlefield
(d) Keshav - combat
(e) Rani- Pubg

Q68. Who will be immediately right of the person who likes Minecraft, if Rani takes place of Keshav, Keshav takes place of Tabu and Tabu takes place of Rani(the game they like remains the same even after rearrangement)?

(a) Tabu
(b) Rani
(c) Sam
(d) Keshav
(e) Hema

Q69. How many persons are sitting between the one who likes Duty and Rani?

(a) One
(b) Either one or two
(c) Two
(d) Four
(e) Three

Q70. Which of the following person sit immediately to the right of the person who likes Combat?

(a) Hema
(b) Tabu
(c) Rani
(d) Nina
(e) Keshav

Q71. Directions: Read the given information carefully and answer the following questions.

If 2 is added to each of the odd digits,3 is subtracted from each of the even digits and we eliminate the second and third terms from the right side in the number '754846813', then the sum of prime numbers is.

(a) 17
(b) 20
(c) 15
(d) 12
(e) 18

Q72. Direction: Read the following information carefully and answer the given questions.

If it is possible to make a meaningful four-letter English word from the third, fifth, sixth, and eighth from the left end of the word "DIABETES", then which of the following will be the second letter of that word from the right end? If more than one such word can be made then give 'Z' as the answer and if no such word can be formed then give 'X' as the answer.

YourMockTest.com — Free Study Material

(a) S
(b) A
(c) E
(d) X
(e) Z

Directions

Direction: Read the following information carefully and answer the given questions.

Eight persons are sitting at the circle table. Four persons are facing inside and four outside. P is sitting second to the right of Q. F is sitting third to the left of P. The neighbors of F are facing outward. Three persons are sitting between R and S. F is to the immediate left of G. The neighbors of T are facing the same direction. More than two persons are sitting between Q and T when counting from the left of T. The neighbors of S are facing opposite directions. U and the one who is sitting immediately right of S is facing inward direction.

Q73. Which of the following statement is true with respect to the seating arrangement?
(a) T is facing inside.
(b) F and G are facing same directions.
(c) Q and S are immediate neighbors.
(d) R is sitting second to the right of U.
(e) Immediate neighbors of Q are facing same directions.

Q74. What is T's position with respect to P?
(a) Second to the left
(b) Immediate right
(c) Immediate left
(d) Second to the right
(e) Third to the right

Q75. Who amongst the following sits exactly between G and Q(and is also their neighbor)?
(a) P
(b) U
(c) F
(d) T
(e) R

Q76. How many persons are seated between F and R(counting to the right of R)?
(a) Five
(b) Three
(c) Two
(d) One
(e) Four

Q77. Who is sitting second to the left of S?
(a) F
(b) T
(c) U
(d) Q
(e) G

Q78. Directions: In the following question assuming the given statements to be true, find which of the conclusions among the given conclusions is/are true and then give your answers accordingly.

Statement:

$T \geq L \geq N < I = V \leq M \leq Q \leq B$

Conclusions:

I. $N > V$

II. B ≥ I

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

Q79. Directions: In the following question assuming the given statements to be true, find which of the conclusions among the given conclusions is/are true and then give your answers accordingly.

Statement:

Y > O > W = I ≥ S > N = X ≤ P

Conclusions:

I. P > N

II. O ≥ S

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

Q80. Directions: In the following question assuming the given statements to be true, find which of the conclusions among the given conclusions is/are true and then give your answers accordingly.

Statement:

T < Y < I = U ≥ P > Q = M < R

Conclusions:

I. I < R

II. R ≤ I

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

Directions

Direction: Read the following information carefully and answer the given questions.

There are six boxes P, Q, R, S, T, and U they have different colors Red, yellow, black, white, green, and violet but not necessarily in the same order. They are kept one above another in the stack. There is one box between Box P and the one with a Yellow color. The box which has Red is immediately below the box which has a yellow color. There is one box between the boxes with Red color and Box Q. There are as many boxes above one with White color as the below Box S. Box S is below white. The one which has Green color is immediately above the one which has Violet but immediately below Box T. Three boxes are between Box U and the one which has Black color. Box Q does not have a Violet color.

Q81. Which of the following statements is/are true?

I. Box T is yellow in color.

II. The one that has a Black color is adjacent to Box Q.

III. Two boxes are above the one that has the Red color.

(a) Only II
(b) Only III
(c) Both I and II
(d) Only I
(e) Both II and III

YourMockTest.com — Free Study Material

Q82. How many boxes are between the one that has Red color and Box S?

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

Q83. How many boxes are kept above box of the one that has Violet color?

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

Q84. Which of the following combination is true?

(a) Q-White
(b) P-Red
(c) S- Violet
(d) T- Black
(e) U- Green

Q85. Which of the following box is kept on the bottommost position?

(a) P
(b) The one who has black color
(c) Q
(d) The one who has Red color
(e) T

Q86. 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 following conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

Maximum Bulb is Tubelight

No Tubelight is a Lamp

Some Lamp is headlight.

Conclusion:

I. Some Headlight is not Tubelight.

II. Some Bulb is not Lamp

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

Q87. 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 following conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

Only AC is Cooler.

Only a few ACs are fans.

Some Fan is not Fridge.

YourMockTest.com — Free Study Material

Conclusions:

I. Some Fridge is not Fan.

II. Some Cooler being Fridge is a possibility.

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

Q88. 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 following conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

Some Doctors are not Scientist

Some Scientists are Pilots.

Only a few Lawyers are Doctors

Conclusion:

I. Some Scientists are doctors.

II. Some Lawyers being Pilots is a possibility.

(a) Both I and II follows
(b) Only I follows
(c) Neither I or II follows
(d) Only II follows
(e) Either I or II follows

Q89. Direction: Read the following information carefully and answer the given questions.

How many pairs of letters are there in the word “BETRAYAL” each of which has as many letters between them as in the English alphabetical series (both forward and backward direction) as they have between them in the English alphabetical series?

(a) Two
(b) None
(c) One
(d) Three
(e) Four

Directions

Direction: Read the following information carefully and answer the given questions.

A certain number of people are sitting in a straight horizontal row, facing to the north direction. Seven persons are sitting between W and Q. W sits at the extreme end of the row. The number of persons sitting between W and C is double the number of persons sitting between C and P. K is sitting fifth to the left of P. Three persons are sitting between T and K. T and P are not immediate neighbors. Two persons are sitting between C and F. F is the immediate neighbor of M. C is sitting to the immediate right of Q. Two persons are sitting to the left of T. F is not an immediate neighbor of P and Q. Not more than two persons are sitting between Q and M.

Q90. How many persons are sitting between W and C?

(a) Four
(b) Two
(c) Six
(d) Eight
(e) Ten

YourMockTest.com - Free Study Material

Q91. Who among the following sits third to the right of the ninth person from the right end?

(a) the person who is an immediate neighbor of C.
(b) the one who is an immediate neighbor of F.
(c) the one who is sitting second to the left of Q
(d) the one who is sitting second to the right of T.
(e) the one who is sitting exactly in the middle of P and M.

Q92. How many persons are sitting in a row?

(a) 21
(b) 19
(c) 20
(d) 23
(e) 17

Directions

Direction: Read the following information carefully and answer the given questions.

Ten persons Amar, Bhumi, Dia, Gia, Kia, Mahi, Neha, Puspa, Romi, and Suman live in the apartment which contains five floors but not necessarily in the same order. Each floor has two flats ie; Flat A and Flat B from west to east. Five floors are considered as Floor 1, Floor 2, Floor 3, and so on from bottom to top. One person lives in each flat. Flat A of Floor 1 is exactly below Flat A of Floor 2 and Flat A of Floor 1 is to the immediate left of Flat B of Floor 1 and so on.

Two floors are between the Kia and Dia floors. Suman lives two floors above Dia and both live in the same flat. Bhumi lives to the west of Puspa on the odd floor number. Romi lives on Floor 4 of Flat A. Neha does not live in the same flat as Bhumi not on the same floor as Kia, who lives two floors above Gia in the same flat. Amar does not live on Flat A. Amar does not live adjacent to the floors of Gia.

Q93. Four of the following five are in the same group, who among the following person is not belongs to that group?

(a) Pushpa
(b) Neha
(c) Amar
(d) Gia
(e) Suman

Q94. How many Floors are there in between Bhumi and Kia?

(a) One
(b) Either Two or Three
(c) Two
(d) Either One or Two
(e) Three

Q95. If Gia is related to Dia and Romi is related to Neha. In that same way, who is related to Pushpa?

(a) Mahi
(b) Amar
(c) Kia
(d) Neha
(e) Bhumi

Q96. What is the position of Mahi?

(a) Floor 3 of Flat B
(b) Floor 5 of Flat A
(c) Floor 4 of Flat B
(d) Floor 2 of Flat A
(e) Floor 1 of Flat B

YourMockTest.com — Free Study Material

Q97. Which of the following person lives to the east of Romi?

(a) Bhumi
(b) Suman
(c) Mahi
(d) Kia
(e) Gia

Directions

Direction: Read the following information carefully and answer the given questions.

Car T starts from point A and travels towards the south for 10 KM and reaches point B. From B it takes a left turn and travels for 15 KM to reach point C. From Point C it takes a left turn and travels for 8 KM to reach Point D. From D it turns left and travels 20 KM to reach a point E. From E it turns towards the left and reaches point F after traveling 11 KM. From F it takes a left turn and travels 10 KM to reach a point G. From G it takes a left turn and travels 7 KM to reach a point H. From H it takes a left turn and travels 3 KM to reach its final destination.

Q98. In which direction point F is with respect to B?

(a) South West
(b) North
(c) North West
(d) South
(e) South East

Q99. What is the shortest distance between point E and G?

(a) √201
(b) √241
(c) √270
(d) √221
(e) √220

Q100. In which of the direction Point D is from point G?

(a) North
(b) South
(c) South West
(d) North East
(e) South East

ANSWER KEY

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

YourMockTest.com – Free Study Material

SOLUTIONS

Q1. Answer: (e) illegal

The solution is in Hindi. Read it online.

Q2. Answer: (c) opportune

The solution is in Hindi. Read it online.

Q3. Answer: (d) sustainable

The solution is in Hindi. Read it online.

Q4. Answer: (a) exaggerate

The solution is in Hindi. Read it online.

Q5. Answer: (a) B-D

The correct answer is B-D.

Key Points

• The sentence talks about how the world-famous heritage sites of Ajanta and Ellora, and other tourist spots in the district will remain shut on Saturdays and Sundays, while marriages will not be allowed to be held in function halls during the lockdown period.

• Looking at the sentence, we can find that:

• In part B, 'officials' spot is inappropriate. Instead, 'tourist' from part D seems more inappropriate in this part of the sentence.

• In part D, we can assume that only officials are in a place to issue statements and not tourists. Therefore, 'officials' will replace 'tourists' in part D.

• 'and other tourists' and 'officials said' are both grammatically and contextually correct.

• Therefore B replaces D and vice-versa.

• Thus, the correct answer is option 1.

The correct answer is: The world-famous heritage sites of Ajanta and Ellora, and other tourist spots in the district will also remain shut on Saturdays and Sundays, while marriages will not be allowed to be held in function halls during the lockdown period, officials said.

Q6. Answer: (b) A-D

The correct answer is A-D.

Key Points

• Looking at the sentence, we can see that

• If A were correct, it should have been 'students''- the possessive form in place of 'students'. Therefore, 'students' is incorrect in part A.

• 'Continuing' is a verb. So, 'continuing' will not fit in part D. Instead, it has to be replaced with a noun i.e 'student

• 'Continuing professional development' and 'creatively with their students' are both grammatically and contextually correct.

• Therefore, A will replace D and vice-versa.

• Thus, the correct answer is option 2.

The correct sentence is: Continuing professional development is necessary to innovate and engage creatively with their students.

Q7. Answer: (d) A-C

The correct answer is A-C

Key Points

• The sentence talks about how a well-known adage in the education world is that technology cannot replace a teacher but a teacher who uses technology will replace one who does not*.*

• Looking at the sentence, we can find that:

• In part A, 'teacher world' doesn't sound correct. Therefore, we can see in part C, that the word 'education' can replace 'teacher' perfectly.

• In part C, we can see that the article 'a' doesn't go with 'education'. Therefore, we can replace 'education' with 'teacher' and it will make sense

• Therefore, 'adage in the education world' and 'but a teacher who uses' are both grammatically and contextually correct.

• Therefore, A replaces C and vice-versa.

• Thus the correct answer is option 4.

YourMockTest.com — Free Study Material

The correct sentence is: A well-known adage in the education world is that technology cannot replace a teacher but a teacher who uses technology will replace one who does not.

Q8. Answer: (c) A-C

The correct answer is A- C.

Key Points

• Let us look at the given sentence in the following manner -

• The study also __ (A) the (B) of Head Start programs that use a (C) educational __ (D).

• To understand which word belongs in which blank we need to know its meaning as enlisted below -

Word	Meaning
different	distinct; separate.
effect	a change that is a result or consequence of an action or other cause.
examined	inspect (someone or something) thoroughly in order to determine their nature or condition.
approach	a way of dealing with a situation or problem.

• From the above meanings it is clear that

• the study also different is an incorrect phrase.

• As 'examined' starts with a vowel, it cannot come after the article 'a'.

• So, A and C should be interchanged to make the sentence correct.

Therefore the correct sentence is - The study also examined the effect of Head Start programs that use a different educational approach.

Q9. Answer: (a) A - B

The correct answer is A-B.

Key Points

• Let us look at the given sentence in the following manner -

In the rural __ (A), there was less (B) with traffic, although an (C) farm dog forced him to __ (D) his sprints.

• To understand which word belongs in which blank we need to know its meaning as enlisted below -

Word	Meaning
concern	something that causes worry or is regarded as important
areas	plural form of 'area' which means a region or part of a town, a country, or the world.
occasional	occurring, appearing, or done infrequently and irregularly.
practice	repeated exercise in or performance of an activity or skill so as to acquire or maintain proficiency in it.

• From the above meanings it is clear that

• the rural concern is an incorrect phrase.

• Individually the phrase 'was less areas' might sound correct. But in context of the given sentence it does not fit.

• So, A and B should be interchanged to make the sentence correct.

Therefore the correct sentence is - In the rural areas, there was less concern with traffic, although an occasional farm dog forced him to practice his sprints.

Confusion Points

• The phrase 'there was less areas with traffic' might sound conceptually correct.

• But grammatically it is wrong.

• It voids subject-verb agreement. Was is singular while areas is plural.

Q10. Answer: (c) C

The correct answer is option 3.

Key Points

YourMockTest.com — Free Study Material

Part C of the sentence i.e. 'day I had the most tastiest' is erroneous.

• In part C of the sentence, the use of the adverb 'most' before the adjective 'tastiest' is superfluous.

• The adjective 'taste' is already given in its superlative form i.e. tastiest and does not need to be preceded by 'most'.

• Hence, the correct answer is C.

• The correct sentence would be - When I went wine tasting with my friends the other day I had the tastiest wine that I have ever had.

Additional Information

Difference between adjectives and adverbs -

• Adjective - An adjective is a word that modifies or describes a noun or pronoun. Adjectives can be used to describe the qualities of someone or something independently or in comparison to something else.

• For Example -

• She wore a beautiful dress at her birthday party.

• Adverb - An adverb is a word that modifies (describes) a verb (he sings loudly), an adjective (very tall), another adverb (ended too quickly), or even a whole sentence (Fortunately, I had brought an umbrella). Adverbs often end in –ly, but some (such as fast) look exactly the same as their adjective counterparts.

• For Example -

• She was beautifully dressed at her birthday party.

Q11. Answer: (a) A

The correct answer is option 1.

Key Points

Part A of the sentence i.e. 'As it is to be superior than' is erroneous.

• Here, the preposition 'than' used after the adjective 'superior' is incorrect and it should be replaced with the preposition 'to'.

• As per English Grammar rules, the adjectives inferior, superior, senior, junior, prior etc. take the preposition 'to' not 'than'.

• For Example -

• The air hostess asked all the passengers to fasten their seat belts prior to descent.

• You can give this task to someone junior to you.

• Hence, the correct answer is A.

• The correct sentence would be - As it is to be superior to static graphics, animation is being increasingly employed in technology-based learning resources.

Additional Information

Let's understand the use of the prepositions 'to' and 'than' -

To -

• It is used to indicate the place, person, or thing that someone or something moves toward, or the direction of something.

• For Example -

• We went to the shopping mall.

• It is used to indicate a limit or an ending point.

• For Example -

• The clothes were piled up to the roof in the cupboard.

• It is used to indicate the relationship between two things.

• For Example -

• Your time is very important to us.

• It is also used to indicate a time or a period.

• For Example -

• I work from nine to five on weekdays.

Than -

• It is used used for comparing and to introduce the second part of a comparison.

• For Example -

• I like cake more than pie.

Q12. Answer: (b) B

The correct answer is option 2.

Key Points

Part B of the sentence i.e. 'depend on how individuals and' is erroneous.

• Here, the verb 'depend' is given in its base form while it should be used with an 's' at the end of it.

• As per English Grammar rules, In the simple present tense, the verb with the third-person singular subject is used with s/es at the end of it.

• For Example -

• He cooks his breakfast every morning.

• Hence, the correct answer is B.

• The correct sentence would be - The transition to a circular economy depends on how individuals and organisations learn to innovate and apply what they have learned in the real world.

Additional Information

Sentence structure of the present simple tense -

Singular subject -

• Subject + Verb in its base form + s/es + Object

• For Example -

• He cooks dinner every day.

Plural subject -

• Subject + Verb in its base form + Object

• For Example -

• They usually wake up early in the morning

Q13. Answer: (e) E

The correct answer is option 4.

Key Points

Part D of the sentence i.e. 'and creating innovation platforms for digital banking' is erroneous.

• The noun 'innovation' given before the noun 'platforms' is incorrect and it should be replaced with the adjective 'innovative'.

• Adjective - Adjectives are words that come before nouns to describe the the qualities or states of being of nouns.

• For Example -

• Your have a very beautiful collection of clothes.

• Hence, the correct answer is D.

• The correct sentence would be - This was only possible because India has made financial inclusion a priority, investing in a digital ID system called Aadhaar and creating innovative platforms for digital banking.

Additional Information

Difference between noun and adjective -

• Noun - A noun is a word that represents a person, place, thing, or idea. It can function as a subject, object, or complement in a sentence. Examples of nouns include - dog, house, book, etc.

• Adjective - An adjective, on the other hand, is a word that describes or modifies a noun or pronoun. It provides additional information about the noun by indicating its quality, size, colour, or other characteristics. Examples of adjectives include - red, beautiful, happy, etc.

To see the difference between a noun and an adjective in action, consider the following sentences -

• The dog barked at the mailman. (dog is a noun)

• The brown dog barked at the mailman. (brown is an adjective that modifies the noun dog)

In the first sentence, the noun dog is the subject of the sentence, while in the second sentence, the adjective brown provides additional information about the dog's color.

Q14. Answer: (e) E

The correct answer is 'No error'.

Key Points

• There is no error in the given sentence.

• The verb "was" in segment (C) is correct, as it refers back to the singular "the solar cooker".
• If it were referring to multiple cookers, we would use "were".
• 'to transform household energy consumption' is additional information.
• 'fabricated' is a verb which means construct or manufacture (an industrial product), especially from prepared components.
• Example:- "you will have to fabricate an exhaust system"
• The use of subject-verb agreement is absolutely correct.
• Hence, the given sentence is correct.
Hence, option 5 is the correct answer.
Confusion Points
• Amid and Amidst are two words that look very similar. Believe it or not, these words mean the same thing.
• Both mean to be in the middle of something or surrounded by something.
• Although these two words are interchangeable, the word amid is more commonly used.

Q15. Answer: (a) E

The correct answer is E.
Key Points
• The first sentence is E as it is introducing the topic by mentioning about a meeting.
• The second sentence is D as it mentions that the deputy government also attended the meeting.
• The third sentence is B as it mentions what was said at the meeting.
• The fourth sentence is C. It informs that some other issues were also discussed at the meeting.
• The last sentence is A as it is concluding the passage by mentioning the purpose behind the discussion of these issues.
• Thus the correct sequence is EDBCA.
• The first sentence is E.
Additional Information
Concern: to relate to or to worry
Regulator: a person or body that supervises a certain industry
Assessment: evaluation or judgement

Q16. Answer: (c) B

The correct answer is B.
• The first sentence is E as it is introducing the topic by mentioning about a meeting.
• The second sentence is D as it mentions that the deputy government also attended the meeting.
• The third sentence is B as it mentions what was said at the meeting.
• The fourth sentence is C. It informs that some other issues were also discussed at the meeting.
• The last sentence is A as it is concluding the passage by mentioning the purpose behind the discussion of these issues.
• Thus the correct sequence is EDBCA.
• The third sentence is B.
Concern: to relate to or to worry
Regulator: a person or body that supervises a certain industry
Assessment: evaluation or judgement

Q17. Answer: (c) C

The correct answer is C.
• The first sentence is E as it is introducing the topic by mentioning about a meeting.
• The second sentence is D as it mentions that the deputy government also attended the meeting.
• The third sentence is B as it mentions what was said at the meeting.
• The fourth sentence is C. It informs that some other issues were also discussed at the meeting.
• The last sentence is A as it is concluding the passage by mentioning the purpose behind the discussion of these issues.
• Thus the correct sequence is EDBCA.
• The fourth sentence is C.
Concern: to relate to or to worry
Regulator: a person or body that supervises a certain industry
Assessment: evaluation or judgement

YourMockTest.com — Free Study Material

Q18. Answer: (c) A

The correct answer is A.

• The first sentence is E as it is introducing the topic by mentioning about a meeting.

• The second sentence is D as it mentions that the deputy government also attended the meeting.

• The third sentence is B as it mentions what was said at the meeting.

• The fourth sentence is C. It informs that some other issues were also discussed at the meeting.

• The last sentence is A as it is concluding the passage by mentioning the purpose behind the discussion of these issues.

• Thus the correct sequence is EDBCA.

• The fifth sentence is A.

Concern: to relate to or to worry

Regulator: a person or body that supervises a certain industry

Assessment: evaluation or judgement

Q19. Answer: (d) D

The correct answer is D.

• The first sentence is E as it is introducing the topic by mentioning about a meeting.

• The second sentence is D as it mentions that the deputy government also attended the meeting.

• The third sentence is B as it mentions what was said at the meeting.

• The fourth sentence is C. It informs that some other issues were also discussed at the meeting.

• The last sentence is A as it is concluding the passage by mentioning the purpose behind the discussion of these issues.

• Thus the correct sequence is EDBCA.

• The second sentence is D.

Concern: to relate to or to worry

Regulator: a person or body that supervises a certain industry

Assessment: evaluation or judgement

Q20. Answer: (d) Only B

The solution is in Hindi. Read it online.

Q21. Answer: (b) Both A and C

The solution is in Hindi. Read it online.

Q22. Answer: (c) Only B

The solution is in Hindi. Read it online.

Q23. Answer: (e) All A, B & C

The solution is in Hindi. Read it online.

Q24. Answer: (c) Deep

The solution is in Hindi. Read it online.

Q25. Answer: (a) Comprehensive

The solution is in Hindi. Read it online.

Q26. Answer: (b) The impact of diet on overall health

The correct answer is option B.

Key Points

• The passage extensively discusses the profound effects that dietary habits have on individual health, indicating that the focus is on understanding the broader impacts of diet.

• Options A, C, D, and E mention specific aspects or types of diets, which the passage does not focus on in detail.

• Therefore, the most comprehensive and fitting answer is B, highlighting the general impact of diet on health.

Q27. Answer: (b) To incorporate various health aspects, including mental and emotional well-being

The correct answer is option B.

Key Points

• The passage mentions a holistic approach to health, suggesting that all factors, including physical, mental, and emotional,

YourMockTest.com — Free Study Material

should be considered in dietary choices.

• This comprehensive approach aligns directly with option B.

• Other options are either too specific or unrelated to the holistic theme discussed in the passage.

Q28. Answer: (c) They contribute to various aspects of health including digestion and heart health

The correct answer is option C.

Key Points

• The passage highlights the importance of a balanced diet that includes necessary nutrients like dietary fibers.

• While specific roles of fibers are not detailed in the provided text, generally, dietary fibers are known to support digestion and cardiovascular health, aligning with a statement about contributing to various health aspects.

• Options A, D, and E are incorrect based on general nutritional knowledge, and B is too narrow in scope compared to what is implied in the passage.

Q29. Answer: (c) Diets should balance carbohydrates, proteins, and fats.

The correct answer is option C.

Key Points

• Statement A: "A high-carb diet is ideal for all." This statement is false as the passage emphasizes the need for a balanced diet that includes not just carbohydrates but also proteins, fats, and other nutrients, highlighting that diet needs are individual and should be tailored.

• Statement B: "Nutritional science supports a one-size-fits-all diet approach." This statement is false; the passage clearly supports the idea that dietary needs vary among individuals, and nutritional science favors personalized diet plans based on individual health needs and lifestyle factors.

• Statement C: "Diets should balance carbohydrates, proteins, and fats." This is true and directly supported by the passage, which advocates for a balanced diet that includes a variety of nutrients to maintain overall health and support different body functions.

• Statement D: "Nutrients have no impact on mental health." This statement is false according to the passage, which links diet not only to physical health but also to mental and emotional well-being, underscoring the impact of nutrients like omega-3 fatty acids on brain health.

• Statement E: "Diet plans should exclude all fats." This statement is false; the passage indicates the importance of including healthy fats in the diet, which are vital for various bodily functions and maintaining overall health.

Q30. Answer: (c) All diets should primarily focus on weight loss.

The correct answer is option C.

Key Points

• Statement A: "Dietary habits significantly influence individual health." This statement is true as the passage discusses the various impacts of diet on different aspects of health, emphasizing that diet is a key component of maintaining good health.

• Statement B: "A balanced diet should include a variety of nutrients." This is true according to the passage, which notes the importance of a well-rounded diet incorporating different nutrients to support overall health.

• Statement C: "All diets should primarily focus on weight loss." This statement is false in the context of the passage. The passage promotes a holistic approach to dieting that considers physical, mental, and emotional health, not solely weight loss.

• Statement D: "Dietary fibers contribute to health." True, as indicated in the passage, dietary fibers play a significant role in maintaining health, supporting digestion, and other functions.

• Statement E: "A holistic diet approach is beneficial for overall well-being." This statement is true and mirrors the passage's central theme that a diet should be comprehensive and consider various health dimensions.

By analyzing the given statements with reference to the passage, it becomes clear that the only statement not aligned with the passage's emphasis on a comprehensive dietary approach is option C. It incorrectly focuses solely on weight loss, whereas the passage advocates for a broader perspective on health.

Q31. Answer: (c) 469

General solution:

Number of students studying in college E = 720

Value of Y = 720/3000 × 100 = 24%

To find the value of Y

(24% + (24 - 4)% + (X - 3)% + 23% +X%) = 100%

(64% + 2X%) = 100%

2X% = 36%

X = 18%

College A:
Number of students studying in college A = 3000 × (18/100) = 540
Number of males studying in college A = 540/3 × 2 = 360
Number of females studying in college A = (540 - 360) = 180
College B:
Number of students studying in college B = 3000 × (23/100) = 690
Number of males studying in college B = 690/23 × 13 = 390
Number of females studying in college B = (690 - 390) = 300
College C:
Number of students studying in college C = 3000 × (15/100) = 450
Number of males studying in college C = 450/9 × 5 = 250
Number of females studying in college C = (450 - 250) = 200
College D:
Number of students studying in college D = 3000 × (20/100) = 600
Number of males studying in college D = 600/5 × 3 = 360
Number of females studying in college D = (600 - 360) = 240
College E:
Number of students studying in college E = 3000 × (24/100) = 720
Number of males studying in college E = 720/5 × 4 = 576
Number of females studying in college E = (720 - 576) = 144

Name of college	Number of male students studying	Number of female students studying
College A	360	180
College B	390	300
College C	250	200
College D	360	240
College E	576	144

Solution:
Number of males studying in college A from city P = 360 × (60/100) = 216
Number of males studying in college A from city Q = (360 - 216) = 144
Number of males studying in college C from city P =250 × (80/100) = 200
Number of males studying in college C from city Q = (250 - 200) = 50
Number of females studying in college A from city P = 180 × (25/100) = 45
Number of females studying in college A from city Q = (180 - 45) = 135
Number of females studying in college C from city P = 200 × (30/100) = 60
Number of females studying in college C from city Q = 200 - 60 = 140
Required total = (144 + 50 + 135 + 140) = 469

Q32. Answer: (c) 340

General solution:
Number of students studying in college E = 720
Value of Y = 720/3000 × 100 = 24%
To find the value of Y
(24% + (24 - 4)% + (X - 3)% + 23% +X%) = 100%
(64% + 2X%) = 100%
2X% = 36%
X = 18%
College A:
Number of students studying in college A = 3000 × (18/100) = 540
Number of males studying in college A = 540/3 × 2 = 360

Number of females studying in college A = (540 - 360) = 180
College B:
Number of students studying in college B = 3000 × (23/100) = 690
Number of males studying in college B = 690/23 × 13 = 390
Number of females studying in college B = (690 - 390) = 300
College C:
Number of students studying in college C = 3000 × (15/100) = 450
Number of males studying in college C = 450/9 × 5 = 250
Number of females studying in college C = (450 - 250) = 200
College D:
Number of students studying in college D = 3000 × (20/100) = 600
Number of males studying in college D = 600/5 × 3 = 360
Number of females studying in college D = (600 - 360) = 240
College E:
Number of students studying in college E = 3000 × (24/100) = 720
Number of males studying in college E = 720/5 × 4 = 576
Number of females studying in college E = (720 - 576) = 144

Name of college	Number of male students studying	Number of female students studying
College A	360	180
College B	390	300
College C	250	200
College D	360	240
College E	576	144

Solution:
Number of males studying in college B = 390
Number of males studying in college B secured distinction = 390 × 1/3 = 130
Number of males secured first class and second class in college B = (390 - 130) = 260
Number of females studying in college B = 300
Number of females studying in college B secured distinction = 300 × 1/6 = 50
Number of females secured first class and second class in college B = (300 - 50) = 250
Total secured first class and second class = 260 + 250 = 510
Number of students secured first class = 510/3 × 2 = 340

Q33. Answer: (c) Rs. 186000

General solution:
Number of students studying in college E = 720
Value of Y = 720/3000 × 100 = 24%
To find the value of Y
(24% + (24 - 4)% + (X - 3)% + 23% +X%) = 100%
(64% + 2X%) = 100%
2X% = 36%
X = 18%
College A:
Number of students studying in college A = 3000 × (18/100) = 540
Number of males studying in college A = 540/3 × 2 = 360
Number of females studying in college A = (540 - 360) = 180
College B:
Number of students studying in college B = 3000 × (23/100) = 690
Number of males studying in college B = 690/23 × 13 = 390

Number of females studying in college B = (690 - 390) = 300
College C:
Number of students studying in college C = 3000 × (15/100) = 450
Number of males studying in college C = 450/9 × 5 = 250
Number of females studying in college C = (450 - 250) = 200
College D:
Number of students studying in college D = 3000 × (20/100) = 600
Number of males studying in college D = 600/5 × 3 = 360
Number of females studying in college D = (600 - 360) = 240
College E:
Number of students studying in college E = 3000 × (24/100) = 720
Number of males studying in college E = 720/5 × 4 = 576
Number of females studying in college E = (720 - 576) = 144

Name of college	Number of male students studying	Number of female students studying
College A	360	180
College B	390	300
College C	250	200
College D	360	240
College E	576	144

Solution:
Number of males studying in college D = 360
Number of females studying in college D = 240
Exam fees for males semester exam = Rs. 350
Exam fees for females in semester exam = Rs. 250
Total fees collected = (360 × 350 + 240 × 250) = (126000 + 60000)
Total collected = Rs. 186000

Q34. Answer: (d) 158

General solution:
Number of students studying in college E = 720
Value of Y = 720/3000 × 100 = 24%
To find the value of Y
(24% + (24 - 4)% + (X - 3)% + 23% +X%) = 100%
(64% + 2X%) = 100%
2X% = 36%
X = 18%
College A:
Number of students studying in college A = 3000 × (18/100) = 540
Number of males studying in college A = 540/3 × 2 = 360
Number of females studying in college A = (540 - 360) = 180
College B:
Number of students studying in college B = 3000 × (23/100) = 690
Number of males studying in college B = 690/23 × 13 = 390
Number of females studying in college B = (690 - 390) = 300
College C:
Number of students studying in college C = 3000 × (15/100) = 450
Number of males studying in college C = 450/9 × 5 = 250
Number of females studying in college C = (450 - 250) = 200
College D:

YourMockTest.com – Free Study Material

Number of students studying in college D = 3000 × (20/100) = 600
Number of males studying in college D = 600/5 × 3 = 360
Number of females studying in college D = (600 - 360) = 240
College E:
Number of students studying in college E = 3000 × (24/100) = 720
Number of males studying in college E = 720/5 × 4 = 576
Number of females studying in college E = (720 - 576) = 144

Name of college	Number of male students studying	Number of female students studying
College A	360	180
College B	390	300
College C	250	200
College D	360	240
College E	576	144

Solution:
1/3rd of number of males studying in college D = 360 × 1/3 = 120
1/4 th of the number of males studying in college E = 576 × 1/6 = 96
1/6 th of the number of females studying in college D = 240 × 1/6 = 40
1/8 th of the number of females studying in college E = 144 × 1/8 = 18
Required difference = (120 + 96) - (40 + 18) = (216 - 58) = 158

Q35. Answer: (b) 61 : 48

General solution:
Number of students studying in college E = 720
Value of Y = 720/3000 × 100 = 24%
To find the value of Y
(24% + (24 - 4)% + (X - 3)% + 23% +X%) = 100%
(64% + 2X%) = 100%
2X% = 36%
X = 18%
College A:
Number of students studying in college A = 3000 × (18/100) = 540
Number of males studying in college A = 540/3 × 2 = 360
Number of females studying in college A = (540 - 360) = 180
College B:
Number of students studying in college B = 3000 × (23/100) = 690
Number of males studying in college B = 690/23 × 13 = 390
Number of females studying in college B = (690 - 390) = 300
College C:
Number of students studying in college C = 3000 × (15/100) = 450
Number of males studying in college C = 450/9 × 5 = 250
Number of females studying in college C = (450 - 250) = 200
College D:
Number of students studying in college D = 3000 × (20/100) = 600
Number of males studying in college D = 600/5 × 3 = 360
Number of females studying in college D = (600 - 360) = 240
College E:
Number of students studying in college E = 3000 × (24/100) = 720
Number of males studying in college E = 720/5 × 4 = 576
Number of females studying in college E = (720 - 576) = 144

YourMockTest.com — Free Study Material

Name of college	Number of male students studying	Number of female students studying
College A	360	180
College B	390	300
College C	250	200
College D	360	240
College E	576	144

Solution:

Number of males studying in college C = 250

Number of males studying in college D = 360

Number of females studying in college A = 180

Number of females studying in college B = 300

Required ratio = (250 + 360): (180 + 300) = (610: 480) = 61 : 48

Q36. Answer: (d) 22500

Shortcut Trick

Let total members be 100%.

Remaining after Amazon Prime (20%) = 80%.

Remaining after Netflix (50% of 80%) = 40%.

Remaining after Hotstar (30% of 40%) = 40% − 12% = 28%.

28% = 6300 => 1% = 225 => 100% = 22500.

Therefore The correct answer is 22500 members.

Alternate Method

Let total members be x.

=> Amazon Prime users = 20% of x = 0.20x

=> Remaining after Amazon = x − 0.20x = 0.80x

=> Netflix users = 50% of 0.80x = 0.40x

=> Remaining after Netflix = 0.80x − 0.40x = 0.40x

=> Hotstar users = 30% of 0.40x = 0.12x

=> Remaining (Youtube) = 0.40x − 0.12x = 0.28x

=> 0.28x = 6300

=> x = 6300 ÷ 0.28 = 22500

Therefore The correct answer is 22500 members.

Additional Information

Successive Percentage Decrease

When values are deducted from the 'remaining' part, it follows a successive pattern: Final Value = Initial Value × (1 − r1/100) × (1 − r2/100) × ...

Base Change in Percentages

Always identify the base of the percentage. If it says 'of the remaining', the previous balance becomes the new 100% for that specific step.

Q37. Answer: (b) 17 years

Shortcut Trick

Emma age = 45 − 25 = 20 years.

Sophia present age = 20 + 8 = 28 years.

Sophia age 7 years ago = 28 − 7 = 21 years (which is 7 units).

Ava age 7 years ago = 9 units = 27 years → Present age = 34 years.

50% of Ava present age = 34 ÷ 2 = 17 years.

Therefore The correct answer is 17 years.

Alternate Method

Given: Ratio of Sophia and Ava (7 years ago) = 7 : 9. Emma age = Sophia − 8. Emma's father = 45 years and Emma + 25.

YourMockTest.com — Free Study Material

Formula: Age difference remains constant over time. Present age = Age (n years ago) + n.

=> Emma's father age = 45 years.

=> Emma's present age = 45 − 25 = 20 years.

=> Sophia's present age = 20 + 8 = 28 years.

=> Sophia's age 7 years ago = 28 − 7 = 21 years.

=> According to ratio 7 : 9, 7 units = 21 → 1 unit = 3.

=> Ava's age 7 years ago = 9 × 3 = 27 years.

=> Ava's present age = 27 + 7 = 34 years.

=> 50% of Ava's present age = 0.50 × 34 = 17 years.

Therefore The correct answer is 17 years.

Additional Information

Age Ratio Concept

If the ratio of ages is a : b and n years pass, the new ratio is (ax+n) : (bx+n). The absolute difference between ages always remains constant.

Percentage Calculations

50% of a value is equivalent to dividing the value by 2 or multiplying by 1/2.

Q38. Answer: (e) x = y or relationship between x and y cannot be established.

I. $2x^2 – 9x + 9 = 0$

=> $2x^2 – 3x – 6x + 9 = 0$

=> $x (2x – 3) – 3 (2x – 3) = 0$

=> $(2x – 3) (x – 3) = 0$

=> $x = 3/2, 3$

II. $2y^2 – 17y + 30 = 0$

=> $2y^2 – 12y – 5y + 30 = 0$

=> $2y (y – 6) – 5 (y – 6) = 0$

=> $(2y – 5) (y – 6) = 0$

=> $y = 5/2, 6$

Value of x	Value of y	Relation
3/2	5/2	x < y
3/2	6	x < y
3	5/2	x > y
3	6	x < y

Hence, relationship between x and y cannot be established.

Q39. Answer: (b) x < y

I. $x^2 – 10x + 24 = 0$

=> $x^2 – 6x – 4x + 24 = 0$

=> $(x – 4) (x – 6) = 0$

=> $x = 4, 6$

II. $2y^2 – 29y + 105 = 0$

=> $2y^2 – 15y – 14y + 105 = 0$

=> $(y – 7) (2y – 15) = 0$

=> $y = 7, 7.5$

Value of x	Value of y	Relation
4	7	x < y
4	7.5	x < y
6	7	x < y
6	7.5	x < y

YourMockTest.com — Free Study Material

Hence, x < y.

Q40. Answer: (a) x > y

I. $x^2 – 42x + 440 = 0$

=> $x^2 – 22x – 20x + 440 = 0$

=> $x(x – 22) – 20(x – 22) = 0$

=> $(x – 22) (x – 20) = 0$

=> $x = 22, 20$

II. $y^2 – 34y + 288 = 0$

=> $y^2 – 18y – 16y + 288 = 0$

=> $y(y – 18) – 16(y – 18) = 0$

=> $(y – 18) (y – 16) = 0$

=> $y = 18, 16$

Value of x	Value of y	Relation
22	18	x > y
22	16	x > y
20	18	x > y
20	16	x > y

Therefore x > y.

Q41. Answer: (d) x ≤ y

I. $25x^2 – 30x + 8 = 0$

=> $25x^2 – 10x – 20x + 8 = 0$

=> $(5x – 4) (5x – 2) = 0$

=> $x = 4/5, 2/5$

II. $25y^2 – 50y + 24 = 0$

=> $25y^2 – 20y – 30y + 24 = 0$

=> $(5y – 6) (5y – 4) = 0$

=> $y = 6/5, 4/5$

Value of x	Value of y	Relation
4/5	6/5	x < y
4/5	4/5	x = y
2/5	6/5	x < y
2/5	4/5	x < y

Hence, x ≤ y.

Q42. Answer: (a) x > y

I. $x^2 – 44x + 483 = 0$

=> $x^2 – 21x – 23x + 483 = 0$

=> $x (x – 21) – 23 (x – 21) = 0$

=> $(x – 21) (x – 23) = 0$

=> $x = 21, 23$

II. $y^2 – 27y + 182 = 0$

=> $y^2 – 14y – 13y + 182 = 0$

=> $y (y – 14) – 13 (y – 14) = 0$

=> $(y – 14) (y – 13) = 0$

=> $y = 14, 13$

Value of x	Value of y	Relation

YourMockTest.com — Free Study Material

21	14	x > y
21	13	x > y
23	14	x > y
23	13	x > y

Hence x > y

Q43. Answer: (d) 6√3 : 10√2

Shortcut Trick

Side of cube (a) = $\sqrt[3]{216}$ = 6 cm. Height of cuboid (h) = 6 cm.

Base area of cuboid = 480 ÷ 6 = 80 cm^2. Since ratio is 5 : 4, (5x) × (4x) = 80 => $20x^2 = 80$ => x = 2.

Dimensions of cuboid: L = 10 cm, B = 8 cm, H = 6 cm.

Ratio = (6 × √3) : √($10^2 + 8^2 + 6^2$) = 6√3 : √200 = 6√3 : 10√2.

Therefore The correct answer is 6√3 : 10√2.

Alternate Method

Given: Volume of cube = 216 cm^3, Volume of cuboid = 480 cm^3, L : B (cuboid) = 5 : 4, H (cuboid) = side of cube.

Formula Used: Volume of cube = a^3, Diagonal of cube = a√3, Volume of cuboid = l × b × h, Diagonal of cuboid = √($l^2 + b^2 + h^2$).

=> $a^3 = 216$ => a = 6 cm.

=> Height of cuboid (h) = 6 cm.

=> Let length (l) = 5x and breadth (b) = 4x.

=> 5x × 4x × 6 = 480 => $120x^2 = 480$ => $x^2 = 4$ => x = 2.

=> l = 10 cm, b = 8 cm, h = 6 cm.

=> Diagonal of cube = 6√3 cm.

=> Diagonal of cuboid = √($10^2 + 8^2 + 6^2$) = √(100 + 64 + 36) = √200 = 10√2 cm.

=> Required Ratio = 6√3 : 10√2.

Therefore The correct answer is 6√3 : 10√2.

Additional Information

Cube properties

Total Surface Area = $6a^2$; Lateral Surface Area = $4a^2$.

Cuboid properties

Total Surface Area = 2(lb + bh + hl); Volume = lbh.

Diagonal length

The longest rod that can be placed inside a room is its space diagonal.

Q44. Answer: (c) 3 L

Shortcut Trick

Milk concentration in Container 1 = 3/7 and in Container 2 = 5/11.

Resultant Milk concentration = 4/9.

Using Alligation (Milk): |5/11 − 4/9| : |3/7 − 4/9| => 1/99 : 1/63 => 7 : 11.

Total ratio parts = 7 + 11 = 18 units = 18 L Therefore 1 unit = 1 L.

Quantity of 1st mixture = 7 L. Milk in it = 7 × (3/7) = 3 L.

Therefore The correct answer is 3 L.

Alternate Method

Given: Ratio 1 = 3:4, Ratio 2 = 5:6, Final Ratio = 4:5, Total Volume = 18 L.

Formula: Quantity1 × (C1 − C_m) = Quantity2 × (C_m − C2)

=> Let Q1 and Q2 be the volumes of the two containers.

=> Milk fraction: Q1(3/7) + Q2(5/11) = (Q1 + Q2)(4/9)

=> Q1(4/9 − 3/7) = Q2(5/11 − 4/9)

=> Q1(1/63) = Q2(1/99) => Q1/Q2 = 63/99 = 7/11

=> Total units = 7 + 11 = 18 → 18 L Therefore Q1 = 7 L

=> Milk in 1st container = 7 × (3 / (3 + 4)) = 7 × 3/7 = 3 L

Therefore The correct answer is 3 L.

Additional Information

Alligation Rule

Used to find the ratio in which two ingredients at given prices/concentrations are mixed to produce a mixture of a mean price. Ratio = (Dearer − Mean) : (Mean − Cheaper).

Replacement Method

When a quantity is replaced repeatedly: Final Concentration = Initial Concentration × $(1 - x/V)^n$, where x is replaced volume and V is total volume.

Multiple Mixtures

When mixing multiple containers, the total quantity of a component (milk) is the sum of quantities from each container: Σ(Ratio × Volume).

Q45. Answer: (d) 160

General Solution:

To find the value of x

100% = (x + 10)% + 60%

x = 30%

Number of orders received in company A = 450

Number orders packed in company A = 450 × (30 + 10)/100 = 180

Number of orders shipped in company A = (450 - 180) = 270

To find the value of y

100% = (30% + y + 30%)

y = 40%

Company B:

Number of orders received in company = 600

Number of orders packed in company = 600 × (70/100) = 420

Number of orders shipped in company = (600 - 420) = 180

Company C:

Number of orders received in company = 700

Number of orders packed in company = 700 × (60 - 5)/100)) = 385

Number of orders shipped in company = (700 - 385) = 315

Company D:

Number of orders received in company = 2650 - (450 + 600 + 700 + 400) = 500

Number of orders packed in company = 500 × (65/100) = 325

Number of orders shipped in company = (500 - 325) = 175

Company E:

Number of orders received in company = 400

Number of orders shipped in company = 400 × 25/100 = 100

Number of orders packed in company = (400 - 100) = 300

Companies	Number of orders packed	Number of orders shipped
A	180	270
B	420	180
C	385	315
D	325	175
E	300	100

Solution:

Number of international orders packed in company E = 300/5 = 60

Number of national orders packed in company E = (300 - 60) = 240

Number of international shipped in company B = 180/3 = 60

Number of national orders shipped in company B = (180 - 60) = 120

Required sum = (240/3 + 120 × 2/3) = 160

Q46. Answer: (c) 5940

General Solution:

To find the value of x

100% = (x + 10)% + 60%

x = 30%

Number of orders received in company A = 450

Number orders packed in company A = 450 × (30 + 10)/100 = 180

Number of orders shipped in company A = (450 - 180) = 270

To find the value of y

100% = (30% + y + 30%)

y = 40%

Company B:

Number of orders received in company = 600

Number of orders packed in company = 600 × (70/100) = 420

Number of orders shipped in company = (600 - 420) = 180

Company C:

Number of orders received in company = 700

Number of orders packed in company = 700 × (60 - 5)/100)) = 385

Number of orders shipped in company = (700 - 385) = 315

Company D:

Number of orders received in company = 2650 - (450 + 600 + 700 + 400) = 500

Number of orders packed in company = 500 × (65/100) = 325

Number of orders shipped in company = (500 - 325) = 175

Company E:

Number of orders received in company = 400

Number of orders shipped in company = 400 × 25/100 = 100

Number of orders packed in company = (400 - 100) = 300

Companies	Number of orders packed	Number of orders shipped
A	180	270
B	420	180
C	385	315
D	325	175
E	300	100

Solution:

Number orders packed in company A = 180

Number of orders shipped in company A = 270

Cost for packing each orders = Rs. 15

Cost for shipping each orders = Rs. 30

Total amount = (180 × 1/5 × 15 + 270 × 2/3 × 30) = (540 + 5400) = (5940)

Q47. Answer: (c) 48: 37

General Solution:

To find the value of x

100% = (x + 10)% + 60%

x = 30%

Number of orders received in company A = 450

Number orders packed in company A = 450 × (30 + 10)/100 = 180

Number of orders shipped in company A = (450 - 180) = 270

YourMockTest.com — Free Study Material

To find the value of y
100% = (30% + y + 30%)
y = 40%
Company B:
Number of orders received in company = 600
Number of orders packed in company = 600 × (70/100) = 420
Number of orders shipped in company = (600 - 420) = 180
Company C:
Number of orders received in company = 700
Number of orders packed in company = 700 × (60 - 5)/100)) = 385
Number of orders shipped in company = (700 - 385) = 315
Company D:
Number of orders received in company = 2650 - (450 + 600 + 700 + 400) = 500
Number of orders packed in company = 500 × (65/100) = 325
Number of orders shipped in company = (500 - 325) = 175
Company E:
Number of orders received in company = 400
Number of orders shipped in company = 400 × 25/100 = 100
Number of orders packed in company = (400 - 100) = 300

Companies	Number of orders packed	Number of orders shipped
A	180	270
B	420	180
C	385	315
D	325	175
E	300	100

Solution:
Number of orders packed in company A = 180
Number of orders packed in company E = 300
Number of orders shipped in company A = 270
Number of orders shipped in company E = 100
Required ratio = (180 + 300): (270 + 100) = (480: 370) = 48: 37

Q48. Answer: (d) 40%

General Solution:
To find the value of x
100% = (x + 10)% + 60%
x = 30%
Number of orders received in company A = 450
Number orders packed in company A = 450 × (30 + 10)/100 = 180
Number of orders shipped in company A = (450 - 180) = 270
To find the value of y
100% = (30% + y + 30%)
y = 40%
Company B:
Number of orders received in company = 600
Number of orders packed in company = 600 × (70/100) = 420
Number of orders shipped in company = (600 - 420) = 180
Company C:
Number of orders received in company = 700

Number of orders packed in company = 700 × (60 - 5)/100)) = 385
Number of orders shipped in company = (700 - 385) = 315
Company D:
Number of orders received in company = 2650 - (450 + 600 + 700 + 400) = 500
Number of orders packed in company = 500 × (65/100) = 325
Number of orders shipped in company = (500 - 325) = 175
Company E:
Number of orders received in company = 400
Number of orders shipped in company = 400 × 25/100 = 100
Number of orders packed in company = (400 - 100) = 300

Companies	Number of orders packed	Number of orders shipped
A	180	270
B	420	180
C	385	315
D	325	175
E	300	100

Solution:
Number of orders packed in company D = 325
Number orders shipped in company D = 175
If number of orders packed increased by 20% and number of orders shipped increased by x%,
325 × 120/100 = 390
Total orders packed and shipped after increased = 635
635 - 390 = 245
To find the value of x
x = (245 - 175)/175 × 100 = 70/175 × 100 = 40%

Q49. Answer: (d) 150

General Solution:
To find the value of x
100% = (x + 10)% + 60%
x = 30%
Number of orders received in company A = 450
Number orders packed in company A = 450 × (30 + 10)/100 = 180
Number of orders shipped in company A = (450 - 180) = 270
To find the value of y
100% = (30% + y + 30%)
y = 40%
Company B:
Number of orders received in company = 600
Number of orders packed in company = 600 × (70/100) = 420
Number of orders shipped in company = (600 - 420) = 180
Company C:
Number of orders received in company = 700
Number of orders packed in company = 700 × (60 - 5)/100)) = 385
Number of orders shipped in company = (700 - 385) = 315
Company D:
Number of orders received in company = 2650 - (450 + 600 + 700 + 400) = 500
Number of orders packed in company = 500 × (65/100) = 325
Number of orders shipped in company = (500 - 325) = 175

Company E:
Number of orders received in company = 400
Number of orders shipped in company = 400 × 25/100 = 100
Number of orders packed in company = (400 - 100) = 300

Companies	Number of orders packed	Number of orders shipped
A	180	270
B	420	180
C	385	315
D	325	175
E	300	100

Solution:
Number of orders packed in company D = 325
Number of orders packed in company F = (325 + 25) = 350
Number of orders shipped in company B = 180
Number of orders shipped in company F = (180 + 20) = 200
Required difference = (350 - 200) = 150

Q50. Answer: (b) 28 : 39 : 34

Shortcut Trick
Let the shares be A = 7k, B = 13k, and C = 17k.
x = (2/3) × A, y = (1/2) × B, z = (1/3) × C.
x : y : z = (2/3 × 7) : (1/2 × 13) : (1/3 × 17) = 14/3 : 13/2 : 17/3.
Multiply by LCM 6 → 28 : 39 : 34.
Therefore The correct answer is 28 : 39 : 34.
Alternate Method
Given: Ratio of A : B : C = 7 : 13 : 17
Calculations:
=> A = 7k, B = 13k, C = 17k
=> x = A − (1/3)A = (2/3)A = (2/3) × 7k = 14k/3
=> y = B − (1/2)B = (1/2)B = (1/2) × 13k = 13k/2
=> z = C − (2/3)C = (1/3)C = (1/3) × 17k = 17k/3
=> x : y : z = (14/3) : (13/2) : (17/3)
=> Multiply by LCM(2, 3) = 6: (14/3 × 6) : (13/2 × 6) : (17/3 × 6)
=> x : y : z = 28 : 39 : 34
Therefore The correct answer is 28 : 39 : 34.
Additional Information
Ratio and Proportion
To simplify fractional ratios, multiply each term by the LCM of all denominators to obtain an integer ratio.
Compound Ratio
The compound ratio of (a : b) and (c : d) is (ac : bd), used when multiple ratios interact in a product form.

Q51. Answer: (c) 25%

Shortcut Trick
Profit of Ram = 1000 × (x ÷ 100) = 10x.
Net profit % of Shyam = 2x − x − (2x × x ÷ 100) = x − (x² ÷ 50).
Profit of Shyam = 2000 × [x − (x² ÷ 50)] ÷ 100 = 20x − 0.4x².
Equating profits: 10x = 20x − 0.4x² => 0.4x² = 10x => 0.4x = 10.
x = 10 ÷ 0.4 = 25.
Therefore The correct answer is 25%.
Alternate Method

Given: CP_(Ram) = Rs. 1000, CP_(Shyam) = Rs. 2000. Ram markup = x%. Shyam markup = 2x%, Discount = x%.
Formulas: Profit = SP − CP | SP = CP × (100 + Markup%) ÷ 100 × (100 − Discount%) ÷ 100
=> Profit of Ram = 1000 × (x ÷ 100) = 10x.
=> Selling Price of Shyam = 2000 × (100 + 2x) ÷ 100 × (100 − x) ÷ 100.
=> SP_(Shyam) = 2000 × (10000 − 100x + 200x − 2x²) ÷ 10000 = (10000 + 100x − 2x²) ÷ 5 = 2000 + 20x − 0.4x².
=> Profit of Shyam = SP − CP = (2000 + 20x − 0.4x²) − 2000 = 20x − 0.4x².
=> Since Profits are equal: 10x = 20x − 0.4x².
=> 0.4x² − 10x = 0 => x(0.4x − 10) = 0.
=> x = 10 ÷ 0.4 = 25.
Therefore The correct answer is 25%.
Additional Information
Marked Price and Markup
Markup is the amount added to the Cost Price to arrive at the Marked Price. Markup% = (Markup ÷ CP) × 100.
Successive Percentage Change
When an item is marked up by a% and then a discount of b% is given, the net profit% is given by the formula: a − b − (ab ÷ 100).

Q52. Answer: (a) 145

In the number series 8, 17, 35, 71, 145, 287, 575
We observe the relation
8 × 2 + 1 = 17
17 × 2 + 1 = 35
35 × 2 + 1 = 71
71 × 2 + 1 = 143 (wrong)
143 × 2 + 1 = 287
287 × 2 + 1 = 575
Thus, we get that 145 is the wrong number in the series

Q53. Answer: (b) 121

In the above series 210, 206, 197, 181, 156, 121, 71
210 - 2^2 = 206
206 - 3^2= 197
197 - 4^2 = 181
181 - 5^2 = 156
156 - 6^2 = 120
120 - 7^2 = 71
Thus, 121 is the wrong number.

Q54. Answer: (d) 80

The series follows the following pattern
=> 3 × 1 + 1 = 4
=> 4 × 1.5 – 1.5 = 4.5
=> 4.5 × 2 + 2 = 11
=> 11 × 2.5 – 2.5 = 25
=> 25 × 3 + 3 = 78
=> 78 × 3.5 – 3.5 = 269.5
Therefore The wrong number in the series is 80.

Q55. Answer: (d) 510

16 × 1 + 1^2 = 17
17 × 2 + 2^2 = 38
38 × 3 + 3^2 = 123
123 × 4 + 4^2 = 508
508 × 5 + 5^2 = 2565

Therefore Wrong term in given number series is 510.

Q56. Answer: (b) 214

$6 + 1^3 = 7$

$7 + 2^2 = 11$

$11 + 3^3 = 38$

$38 + 4^2 = 54$

$54 + 5^3 = 179$

$179 + 6^2 = 215$

Therefore Wrong number in given number series is 214.

Q57. Answer: (c) 12%

Shortcut Trick

For 2 years, the difference between CI and SI is given by: $D = P \times (r/100)^2$.

$\Rightarrow 72 = 5000 \times (x/100)^2$

$\Rightarrow 72 = 5000 \times (x^2 / 10000)$

$\Rightarrow 72 = x^2 / 2 \Rightarrow x^2 = 144 \Rightarrow x = 12\%$.

Therefore The correct answer is 12%.

Alternate Method

Given: Principal (P) = Rs. 5000, Time (T) = 2 years, Difference (D) = Rs. 72.

Formula Used: Difference $(D) = P(r/100)^2$

$\Rightarrow 72 = 5000 \times (x/100) \times (x/100)$

$\Rightarrow 72 = 5000 \times x^2 / 10000$

$\Rightarrow 72 = x^2 / 2$

$\Rightarrow x^2 = 72 \times 2 = 144$

$\Rightarrow x = \sqrt{144} = 12$

Therefore The correct answer is 12%.

Additional Information

CI and SI Difference for 3 years

The formula for the difference between CI and SI for 3 years is $D = P(r/100)^2 \times (3 + r/100)$.

Effective Rate Method

For 2 years, effective SI rate is 2r% and effective CI rate is $(2r + r^2/100)\%$. The difference is always $(r^2/100)\%$ of Principal.

Q58. Answer: (a) 5 hours

Shortcut Trick

Let Upstream speed be U and Downstream speed be D.

Ratio of distances D : U = 60 : 40 = 3 : 2 (Time is constant, so speed ratio = distance ratio).

Given: $10/U + 10/D = 25/12 \Rightarrow 10/(2x) + 10/(3x) = 25/12 \Rightarrow (15 + 10)/3x = 25/12 \Rightarrow 25/3x = 25/12 \Rightarrow x = 4$.

So, U = 8 kmph and D = 12 kmph.

Required Time = 24/8 + 24/12 = 3 + 2 = 5 hours.

Therefore The correct answer is 5 hr.

Alternate Method

Given:

=> Time for 40 km Upstream = Time for 60 km Downstream

$\Rightarrow 40/U = 60/D \Rightarrow D = 1.5U$

Condition 2:

$\Rightarrow 10/U + 10/D = 25/12$ hours

$\Rightarrow 10/U + 10/(1.5U) = 25/12$

$\Rightarrow 10/U + 20/(3U) = 25/12$

$\Rightarrow (30 + 20) / 3U = 25/12$

$\Rightarrow 50 / 3U = 25/12 \Rightarrow 2/U = 1/4 \Rightarrow U = 8$ kmph

$\Rightarrow D = 1.5 \times 8 = 12$ kmph

Final Calculation:

=> Required Time = 24/U + 24/D

=> Time = 24/8 + 24/12 = 3 + 2 = 5 hr

Therefore The correct answer is 5 hr.

Additional Information

Upstream and Downstream Speed

Downstream Speed (D) = Speed of boat (u) + Speed of stream (v); Upstream Speed (U) = Speed of boat (u) − Speed of stream (v).

Boat Speed in Still Water

Speed of boat in still water (u) = (D + U) ÷ 2.

Speed of Stream

Speed of the current/stream (v) = (D − U) ÷ 2.

Q59. Answer: (d) Rs. 3640

Shortcut Trick

Amit: 10 questions × Rs. 70 × 2 weeks = Rs. 1400

Vishal: (2 questions/day × 7 days) × Rs. 80 × 2 weeks = Rs. 2240

Total: Rs. 1400 + Rs. 2240 = Rs. 3640

Therefore The correct answer is Rs. 3640.

Alternate Method

Given:

Questions by Amit per week = 10; Rate = Rs. 70/question

Questions by Vishal per day = 2; Rate = Rs. 80/question

Time period = 2 weeks (14 days)

Calculations:

=> Total questions by Amit in 2 weeks = 10 × 2 = 20 questions

=> Amount for Amit = 20 × 70 = Rs. 1400

=> Total questions by Vishal in 2 weeks = 2 × 14 = 28 questions

=> Amount for Vishal = 28 × 80 = Rs. 2240

=> Total amount = 1400 + 2240 = Rs. 3640

Therefore The correct answer is Rs. 3640.

Additional Information

Unitary Method

Total Earning = (Quantity of Work done per unit time × Total Time) × Rate per unit of work.

Time Conversion

Always ensure the time units are consistent (e.g., converting weeks to days if the rate is given per day). 1 standard week = 7 days.

Q60. Answer: (c) Both the statements I and II together are needed to answer the question.

Shortcut Trick

From Statement I: 40% of Females = 120 => Total Females = 300.

From Statement II: Total Females (300) = 1.25 × (60% of Males).

300 = 1.25 × 0.6 × Males => 300 = 0.75 × Males => Total Males = 400.

Average = (300 + 400) ÷ 2 = 350. Both statements are required.

Therefore The correct answer is 350.

Alternate Method

Given: Participated Males = 60% of M; Participated Females = 40% of F.

From Statement I:

=> 40% of F = 120

=> F = (120 × 100) ÷ 40 = 300

=> Total Females = 300. (M is unknown, only M > 300 is given).

From Statement II:

=> F = 125% of (Participated Males)

=> F = 1.25 × (60% of M)

YourMockTest.com — Free Study Material

Combining I and II:

=> 300 = 1.25 × 0.60 × M

=> 300 = 0.75 × M

=> M = 300 ÷ 0.75 = 400

=> Average = (300 + 400) ÷ 2 = 350

Therefore The correct answer is 350.

Additional Information

Data Sufficiency approach

Always check if a unique value can be determined. If two variables (M and F) are present, you generally need two independent linear equations.

Percentage to Fraction Conversion

25% more means a multiplier of 1.25 or 5/4. 60% means 3/5 and 40% means 2/5.

Average Formula

The average of two quantities A and B is calculated as (A + B) ÷ 2.

Q61. Answer: (c) Either I or III

Number = 10x + y

From statement I:

(10x + y) – (10y + x) = 18

=> x – y = 2 ----(i)

From statement II:

x + y = 8 ----(ii)

From statement III:

x – y = 2 ----(iii)

By the help of equation (i) or (iii) and (ii)

=> x = 5 and y = 3

Number = 53

Therefore Either statement I or statement III is not necessary to answer the question

Q62. Answer: (e) The data in statement I alone is sufficient to answer the question, while the data in II alone is not suffi...

Calculation:

From statement I

Ratio of efficiency of A and C is 5 : 9

Ratio of time taken by A and C is 9 : 5

A takes 8 days more than C to finish the work

=> (9 – 5) units = 8 days

=> 4 units = 8 days

=> 1 unit = 2 days

Therefore A will complete the work in = 9 × 2 = 18 days

From statement II

A and B working together can complete the work in 10 days

=> 1/A + 1/B = 1/10

C is twice efficient than A

Therefore The data in statement I alone is sufficient to answer the question, while the data in II alone is not sufficient to answer the question.

Q63. Answer: (c) Both the statements I and II together are needed to answer the question.

Formula used:

Length of a train = Speed of the train × time taken to cross a pole

Length of a train = Relative Speed (S_t + S_m) × Time taken to cross a man

Calculation:

Let the Length of the Train A be L_t

Statement I

Speed of a train (S_t) = x m/s

Speed of a man (S_m) = 10 m/s

Time Taken = 10 sec

Length of the Train A (L_t) = Relative Speed (S_t + S_m) × Time taken to cross a man

Length of the Train A (L_t) = (x + 10) × 10

As you can see Speed of the train is needed to find the answer, let's check the other statement

Statement II

Speed of Train B = 2 × Speed of Train A

Speed of Train B = 2x

Time Taken to cross a Pole = 5 sec

Length of Train B = 500 m

Length of the Train = Speed of Train × Time taken to cross a pole

500 = 2x × 5

x = 500/10

x = 50 m/s

From Statement II, we get the Speed of Train A, and put it in statement I

Length of Train A (L_t) = (50 + 10) × 10 = 60 × 10

Length of Train A (L_t) = 600 m

Therefore Statement I and II together are necessary to answer the questions.

Q64. Answer: (d) 61

Shortcut Trick

In an Arithmetic Progression (AP), the Average is always the mean of the first term and the last term.

Average = (Lightest + Heaviest) ÷ 2

33 = (5 + x) ÷ 2

66 = 5 + x => x = 61

Therefore The correct answer is 61.

Alternate Method

Given: Average weight = 33 kg, Number of people = x, Lightest weight (a) = 5 kg, Heaviest weight (l) = x kg.

Formula Used: Sum of AP (S_n) = (n ÷ 2) × (a + l); Average = Sum ÷ n

=> Average = [(x ÷ 2) × (5 + x)] ÷ x

=> 33 = (5 + x) ÷ 2

=> 66 = 5 + x

=> x = 66 − 5

=> x = 61

Therefore The correct answer is 61.

Additional Information

Properties of AP Average

For any Arithmetic Progression, the Average is equivalent to the middle term (if n is odd) or the mean of the two middle terms (if n is even).

Sum of n terms in AP

S_n = n/2 × [2a + (n−1)d], where a is the first term, d is the common difference, and n is the number of terms.

Q65. Answer: (c) 12620

Shortcut Trick

Total profit in the first year = Rs. 10000, and in the second year = Rs. 8044.44.

Total profit for both years combined = 10000 + 8044.44 = Rs. 18044.44.

For each year, 5% is allocated to Charity, and 5% is added equally to their investments (2.5% each). The remaining 90% is divided in the investment ratio.

Since the initial investment ratio is 70000 : 20000 = 7 : 2, and the 5% addition is equal (2.5% of total profit each), A receives his share from the 2.5% equal distribution plus his proportion of the 90% remaining profit.

In the first year, investment is in the ratio 7 : 2. After adding 5% of profit (Rs. 500 equally, i.e., Rs. 250 each), the new investments for the second year become Rs. 70250 and Rs. 20250, which is approximately the same ratio (70.25 : 20.25 ≈ 7 : 2).

A's total share ≈ 2.5% of Total Profit + 7/9 × 90% of Total Profit = 2.5% + 70% = 72.5% of the total profit.

Total Profit of A ≈ 72.5% of 18044.44 ≈ Rs. 12620.

Therefore The correct answer is Rs. 12620.

Alternate Method

Given:

Initial capital of A = Rs. 70000, Initial capital of B = Rs. 20000

First year profit = Rs. 10000, Second year profit = Rs. 8044.44

Formulas:

Profit Distribution = Charity (5%) + Equal addition to investment (5%) + Remaining profit distributed in investment ratio (90%)

Step-by-step Solution:

=> First Year Profit Distribution:

=> Total profit = Rs. 10000

=> Charity (5%) = Rs. 500

=> Added to Investment (5%) = Rs. 500 (Rs. 250 each to A and B)

=> Remaining profit (90%) = Rs. 9000. Divided in the ratio of initial investments (70000 : 20000 = 7 : 2).

=> A's share from remaining profit = 9000 × (7 ÷ 9) = Rs. 7000

=> Total profit received by A in the 1st year = Rs. 250 (equal addition) + Rs. 7000 = Rs. 7250

=> New Investments at the start of the 2nd year: A = 70000 + 250 = Rs. 70250, B = 20000 + 250 = Rs. 20250

=> Second Year Profit Distribution:

=> Total profit = Rs. 8044.44

=> Added to Investment (5%) = 5% of 8044.44 = Rs. 402.22 (Rs. 201.11 each to A and B)

=> Remaining profit (90%) = 90% of 8044.44 = Rs. 7240

=> Remaining profit divided in the new investment ratio (70250 : 20250 = 281 : 81). Sum of ratio parts = 281 + 81 = 362.

=> A's share from remaining profit = 7240 × (281 ÷ 362) = 20 × 281 = Rs. 5620

=> Total profit received by A in the 2nd year = Rs. 201.11 + Rs. 5620 = Rs. 5821.11

=> Total Profit of A:

=> Total Profit of A = Profit of 1st Year + Profit of 2nd Year = 7250 + 5821.11 ≈ Rs. 13071.11 (without considering equal addition as part of personal withdrawal profit) or if the 5% added to investment is considered part of the total profit accumulated by A: 7250 + 5821.11 ≈ 13071.11. Let's recalculate if the 5% added to investment is NOT accumulated as profit payout, but only the 90% remaining is distributed: 1st Year = 7000, 2nd Year = 5620. Total = 7000 + 5620 = 12620.

=> In business partnership questions, the portion reinvested is part of capital and the distributed profit is from the 90% split, plus potentially the 5% equal addition. If only the remaining profit is distributed, A's profit = 7000 + 5620 = Rs. 12620.

Therefore The correct answer is Rs. 12620.

Additional Information

Partnership Profit Distribution

In a partnership, unless specified otherwise, profits are distributed in the ratio of the product of the capital invested and the time period of investment: Profit Ratio = (C1 × T1) : (C2 × T2).

Q66. Answer: (b) Hema is an immediate neighbor of the one who likes Free fire

1) Nina likes Minecraft and not more than two persons are sitting to the left of Nina. One person sits between Nina and Hema.

2) The number of persons sitting between Rani and Keshav is one less than the number of persons sitting to the right of Hema. Keshav and the person who like Pubg are not sitting at the extreme end. The person who likes Pubg is sitting to the immediate right of Keshav.

Cases 1 and 2 cannot satisfy the given conditions. That is why, Cases 1 and 2 are eliminated.

3) The person who likes Duty is sitting immediately right of Sam. This condition is not satisfied in Case 3(b). That is why Case 3(b) is eliminated.

4) Two persons sit between the person who likes Combat and Duty. The person who likes Free Fire is not an immediate neighbor of the one who likes Duty. This condition is not satisfied in Case 4. That is why Case 4 is eliminated.

The final arrangement is:

Two persons are sitting between Hema and the person who likes Free fire. Hence, Hema is an immediate neighbor of the one who likes Free fire is not true.

Q67. Answer: (d) Keshav - combat

1) Nina likes Minecraft and not more than two persons are sitting to the left of Nina. One person sits between Nina and Hema.

2) The number of persons sitting between Rani and Keshav is one less than the number of persons sitting to the right of Hema. Keshav and the person who like Pubg are not sitting at the extreme end. The person who likes Pubg is sitting to the immediate right of Keshav.

Cases 1 and 2 cannot satisfy the given conditions. That is why, Cases 1 and 2 are eliminated.

3) The person who likes Duty is sitting immediately right of Sam. This condition is not satisfied in Case 3(b). That is why Case 3(b) is eliminated.

4) Two persons sit between the person who likes Combat and Duty. The person who likes Free Fire is not an immediate neighbor of the one who likes Duty. This condition is not satisfied in Case 4. That is why Case 4 is eliminated.

The final arrangement is:

Keshav likes Combat. Hence, Keshav-Combat is the correct combination.

Q68. Answer: (b) Rani

1) Nina likes Minecraft and not more than two persons are sitting to the left of Nina. One person sits between Nina and Hema.

2) The number of persons sitting between Rani and Keshav is one less than the number of persons sitting to the right of Hema. Keshav and the person who like Pubg are not sitting at the extreme end. The person who likes Pubg is sitting to the immediate right of Keshav.

Cases 1 and 2 cannot satisfy the given conditions. That is why, Cases 1 and 2 are eliminated.

3) The person who likes Duty is sitting immediately right of Sam. This condition is not satisfied in Case 3(b). That is why Case 3(b) is eliminated.

4) Two persons sit between the person who likes Combat and Duty. The person who likes Free Fire is not an immediate neighbor of the one who likes Duty. This condition is not satisfied in Case 4. That is why Case 4 is eliminated.

The final arrangement is:

if Rani takes the place of Keshav, Keshav takes place of Tabu and Tabu takes place of Rani, the rearrangement is:

Hence, Rani is immediately right of the person who likes Minecraft.

Q69. Answer: (d) Four

1) Nina likes Minecraft and not more than two persons are sitting to the left of Nina. One person sits between Nina and Hema.

2) The number of persons sitting between Rani and Keshav is one less than the number of persons sitting to the right of Hema. Keshav and the person who like Pubg are not sitting at the extreme end. The person who likes Pubg is sitting to the immediate right of Keshav.

Cases 1 and 2 cannot satisfy the given conditions. That is why, Cases 1 and 2 are eliminated.

3) The person who likes Duty is sitting immediately right of Sam. This condition is not satisfied in Case 3(b). That is why Case 3(b) is eliminated.

4) Two persons sit between the person who likes Combat and Duty. The person who likes Free Fire is not an immediate neighbor of the one who likes Duty. This condition is not satisfied in Case 4. That is why Case 4 is eliminated.

The final arrangement is:

Hence, Four persons are sitting between the one who likes Duty and Rani.

Q70. Answer: (a) Hema

1) Nina likes Minecraft and not more than two persons are sitting to the left of Nina. One person sits between Nina and Hema.

2) The number of persons sitting between Rani and Keshav is one less than the number of persons sitting to the right of Hema. Keshav and the person who like Pubg are not sitting at the extreme end. The person who likes Pubg is sitting to the immediate right of Keshav.

Cases 1 and 2 cannot satisfy the given conditions. That is why, Cases 1 and 2 are eliminated.

3) The person who likes Duty is sitting immediately right of Sam. This condition is not satisfied in Case 3(b). That is why Case 3(b) is eliminated.

4) Two persons sit between the person who likes Combat and Duty. The person who likes Free Fire is not an immediate neighbor of the one who likes Duty. This condition is not satisfied in Case 4. That is why Case 4 is eliminated.

The final arrangement is:

Hence, Hema sits immediately to the right of the person who likes Combat.

Q71. Answer: (b) 20

Given Number	7	5	4	8	4	6	8	1	3

Operations	+2	+2	-3	-3	-3	-3	-3	+2	+2
Output	9	7	1	5	1	3	5	3	5

If we eliminate the second and third terms from the right side of the number.

Hence, the sum of prime numbers is 20(7+5+3+5).

Q72. Answer: (e) Z

Given word: "DIABETES"

The third letter is 'A', the fifth letter is 'E', the sixth letter is 'T', and the Eighth letter is 'S' from the left end.

A meaningful four-letter English word is:

1) East the direction you look towards to see the sunrise.

2) Seat means something that you sit on.

More than one word could be formed. Hence, Z is correct option.

Q73. Answer: (d) R is sitting second to the right of U.

Eight persons are sitting at the circle table. Four persons are facing inside and four outside.

1) P is sitting second to the right of Q. F is sitting third to the left of P. The neighbors of F are facing outward.

2) Three persons are sitting between R and S. F is to the immediate left of G. This condition is not satisfied in Case 2. So, Case 2 is eliminated.

3) The neighbors of T are facing the same direction. In Case 3, already three persons are facing outside. So, the immediate neighbors of T will face inside.

4) More than two persons are sitting between Q and T when counting from the left of T. This condition is not satisfied in Case 3, So, Case 3 is eliminated.

5) The neighbors of S are facing opposite directions. U and the one who is sitting immediately right of S is facing inward direction.

6) Already four persons are facing inside. So, R will face outside the center.

The final arrangement is:

Hence, R is sitting second to the right of U is the true statement.

Q74. Answer: (a) Second to the left

Eight persons are sitting at the circle table. Four persons are facing inside and four outside.

1) P is sitting second to the right of Q. F is sitting third to the left of P. The neighbors of F are facing outward.

2) Three persons are sitting between R and S. F is to the immediate left of G. This condition is not satisfied in Case 2. So, Case 2 is eliminated.

3) The neighbors of T are facing the same direction. In Case 3, already three persons are facing outside. So, the immediate neighbors of T will face inside.

4) More than two persons are sitting between Q and T when counting from the left of T. This condition is not satisfied in Case 3, So, Case 3 is eliminated.

5) The neighbors of S are facing opposite directions. U and the one who is sitting immediately right of S is facing inward direction.

6) Already four persons are facing inside. So, R will face outside the center.

The final arrangement is:

Hence, T's position is second to the left of P.

Q75. Answer: (e) R

Eight persons are sitting at the circle table. Four persons are facing inside and four outside.

1) P is sitting second to the right of Q. F is sitting third to the left of P. The neighbors of F are facing outward.

2) Three persons are sitting between R and S. F is to the immediate left of G. This condition is not satisfied in Case 2. So, Case 2 is eliminated.

3) The neighbors of T are facing the same direction. In Case 3, already three persons are facing outside. So, the immediate neighbors of T will face inside.

4) More than two persons are sitting between Q and T when counting from the left of T. This condition is not satisfied in Case 3, So, Case 3 is eliminated.

5) The neighbors of S are facing opposite directions. U and the one who is sitting immediately right of S is facing inward direction.

6) Already four persons are facing inside. So, R will face outside the center.

The final arrangement is:

Hence, R sits exactly between G and Q(and is also their neighbor).

YourMockTest.com — Free Study Material

Q76. Answer: (a) Five

Eight persons are sitting at the circle table. Four persons are facing inside and four outside.

1) P is sitting second to the right of Q. F is sitting third to the left of P. The neighbors of F are facing outward.

2) Three persons are sitting between R and S. F is to the immediate left of G. This condition is not satisfied in Case 2. So, Case 2 is eliminated.

3) The neighbors of T are facing the same direction. In Case 3, already three persons are facing outside. So, the immediate neighbors of T will face inside.

4) More than two persons are sitting between Q and T when counting from the left of T. This condition is not satisfied in Case 3, So, Case 3 is eliminated.

5) The neighbors of S are facing opposite directions. U and the one who is sitting immediately right of S is facing inward direction.

6) Already four persons are facing inside. So, R will face outside the center.

The final arrangement is:

Hence, Five persons are seated between F and R.

Q77. Answer: (a) F

Eight persons are sitting at the circle table. Four persons are facing inside and four outside.

1) P is sitting second to the right of Q. F is sitting third to the left of P. The neighbors of F are facing outward.

2) Three persons are sitting between R and S. F is to the immediate left of G. This condition is not satisfied in Case 2. So, Case 2 is eliminated.

3) The neighbors of T are facing the same direction. In Case 3, already three persons are facing outside. So, the immediate neighbors of T will face inside.

4) More than two persons are sitting between Q and T when counting from the left of T. This condition is not satisfied in Case 3, So, Case 3 is eliminated.

5) The neighbors of S are facing opposite directions. U and the one who is sitting immediately right of S is facing inward direction.

6) Already four persons are facing inside. So, R will face outside the center.

The final arrangement is:

Hence, F sits second to the left of S.

Q78. Answer: (c) Only II

Given Statement: $T \geq L \geq N < I = V \leq M \leq Q \leq B$

Conclusions:

I. $N > V \rightarrow$ False ($N < I = V$. So, $N < V$)

II. $B \geq I \rightarrow$ True ($I = V \leq M \leq Q \leq B$)

Hence, Only II follows.

Q79. Answer: (e) Neither I nor II

GivenStatement: $Y > O > W = I \geq S > N = X \leq P$

Conclusions:

I. $P > N \rightarrow$ False ($N = X \leq P$. So, $N \leq P$)

II. $O \geq S \rightarrow$ False ($O > W = I \geq S$. So, $O > S$)

Hence, Neither I nor II is true.

Q80. Answer: (e) Either I or II

GivenStatement: $T < Y < I = U \geq P > Q = M < R$

Conclusions:

I. $I < R \rightarrow$ False ($I = U \geq P > Q = M < R$.Relation between I and R cannot be inferred)

II. $R \leq I \rightarrow$ False ($I = U \geq P > Q = M < R$. Relation between I and R cannot be inferred)

Both the variables in the conclusions are the same. One conclusion is opposite to the other. Both the conclusions are wrong individually. Therefore, it is a Either or Case.

Hence, Either I or II follows.

Q81. Answer: (b) Only III

1) There is one box between Box P and the one with a Yellow color. The box which has Red is immediately below the box which has a yellow color. There is one box between the boxes with a Red color and Box Q.

Case 1	Case 2	Case 3	Case 4	Case 5					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P		P							Yellow
		Q		P					Red
	Yellow		Yellow	Q		P		P	
	Red		Red		Yellow	Q		Q	
					Red		Yellow		
Q							Red		

Case 6	Case 7	Case 8	Case 9	Case 10					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
				Q					
	Yellow				Yellow	Q			
	Red		Yellow		Red		Yellow	Q	
P			Red	P			Red		Yellow
Q		P				P			Red
		Q						P	

2) The one which has Green color is immediately above the one which has Violet but immediately below Box T.

Case 1	Case 2	Case 3	Case 4(a)	Case 4(b)	Case 5						
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P		P		T		T					Yellow
		Q		P	Green		Green	T		T	Red
	Yellow		Yellow	Q	Violet	P	Violet	P	Green	P	Green
T	Red	T	Red		Yellow	Q		Q	Violet	Q	Violet
	Green		Green		Red		Yellow		Yellow		
Q	Violet		Violet				Red		Red		

Case 6	Case 7	Case 8	Case 9	Case 10					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
				Q				T	
	Yellow				Yellow	Q			Green
T	Red		Yellow	T	Red		Yellow	Q	Violet
P	Green	T	Red	P	Green	T	Red		Yellow
Q	Violet	P	Green		Violet	P	Green		Red
		Q	Violet				Violet	P	

3) Box Q does not have a Violet color. There are as many boxes above one with White color as the below S. S is below white. Cases 1, 3, 4(b), 5, 6, 7, and 10 are not satisfying the given condition. That is why they are eliminated.

Case 2(a)	Case 2(b)	Case 4(a)	Case 8	Case 9					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P	White	P		T	White	Q	White		White

YourMockTest.com — Free Study Material

Q		Q	White		Green		Yellow	Q	
	Yellow		Yellow	P	Violet	T	Red		Yellow
T	Red	T	Red	Q		P	Green	T	Red
	Green	S	Green		Yellow		Violet	P	Green
S	Violet		Violet	S	Red	S		S	Violet

4) Three boxes are between Box U and the one which has Black color. Cases 2(a), Case 2(b), Case 4(a), and Case 9 are not satisfying the given condition. That is why they are eliminated.

Box	Color
Q	White
U	Yellow
T	Red
P	Green
	Violet
S	Black

The final arrangement is:

Box	Color
Q	White
U	Yellow
T	Red
P	Green
R	Violet
S	Black

Box T has a Red color. The one that has Black is not adjacent to Box Q. Hence, Only III (Two boxes are above the one that has the Red color.) is true.

Q82. Answer: (c) Two

1) There is one box between Box P and the one with a Yellow color. The box which has Red is immediately below the box which has a yellow color. There is one box between the boxes with a Red color and Box Q.

Case 1	Case 2	Case 3	Case 4	Case 5					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P		P							Yellow
		Q		P					Red
	Yellow		Yellow	Q		P		P	
	Red		Red		Yellow	Q		Q	
					Red		Yellow		
Q							Red		

Case 6	Case 7	Case 8	Case 9	Case 10					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
				Q					
	Yellow				Yellow	Q			

YourMockTest.com — Free Study Material

	Red		Yellow		Red		Yellow	Q	
P			Red	P			Red		Yellow
Q		P				P			Red
		Q						P	

2) The one which has Green color is immediately above the one which has Violet but immediately below Box T.

Case 1	**Case 2**	**Case 3**	**Case 4(a)**	**Case 4(b)**	**Case 5**						
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P		P		T		T					Yellow
		Q		P	Green		Green	T		T	Red
	Yellow		Yellow	Q	Violet	P	Violet	P	Green	P	Green
T	Red	T	Red		Yellow	Q		Q	Violet	Q	Violet
	Green		Green		Red		Yellow		Yellow		
Q	Violet		Violet				Red		Red		

Case 6	**Case 7**	**Case 8**	**Case 9**	**Case 10**					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
				Q				T	
	Yellow				Yellow	Q			Green
T	Red		Yellow	T	Red		Yellow	Q	Violet
P	Green	T	Red	P	Green	T	Red		Yellow
Q	Violet	P	Green		Violet	P	Green		Red
		Q	Violet				Violet	P	

3) Box Q does not have a Violet color. There are as many boxes above one with White color as the below Box S. Box S is below white. Cases 1, 3, 4(b), 5, 6, 7, and 10 are not satisfying the given condition. That is why they are eliminated.

Case 2(a)	**Case 2(b)**	**Case 4(a)**	**Case 8**	**Case 9**					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P	White	P		T	White	Q	White		White
Q		Q	White		Green		Yellow	Q	
	Yellow		Yellow	P	Violet	T	Red		Yellow
T	Red	T	Red	Q		P	Green	T	Red
	Green	S	Green		Yellow		Violet	P	Green
S	Violet		Violet	S	Red	S		S	Violet

4) Three boxes are between Box U and the one which has Black color. Cases 2(a), Case 2(b), Case 4(a), and Case 9 are not satisfying the given condition. That is why they are eliminated.

Box	**Color**
Q	White
U	Yellow
T	Red
P	Green

YourMockTest.com — Free Study Material

	Violet
S	Black

The final arrangement is:

Box	Color
Q	White
U	Yellow
T	Red
P	Green
R	Violet
S	Black

Hence, Two boxes are between the one that has Red color and Box S.

Q83. Answer: (e) Four

1) There is one box between Box P and the one with a Yellow color. The box which has Red is immediately below the box which has a yellow color. There is one box between the boxes with a Red color and Box Q.

Case 1	Case 2	Case 3	Case 4	Case 5					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P		P							Yellow
		Q		P					Red
	Yellow		Yellow	Q		P		P	
	Red		Red		Yellow	Q		Q	
					Red		Yellow		
Q							Red		

Case 6	Case 7	Case 8	Case 9	Case 10					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
				Q					
	Yellow				Yellow	Q			
	Red		Yellow		Red		Yellow	Q	
P			Red	P			Red		Yellow
Q		P				P			Red
		Q						P	

2) The one which has Green color is immediately above the one which has Violet but immediately below Box T.

Case 1	Case 2	Case 3	Case 4(a)	Case 4(b)	Case 5						
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P		P		T		T					Yellow
		Q		P	Green		Green	T		T	Red
	Yellow		Yellow	Q	Violet	P	Violet	P	Green	P	Green
T	Red	T	Red		Yellow	Q		Q	Violet	Q	Violet
	Green		Green		Red		Yellow		Yellow		

YourMockTest.com — Free Study Material

Q	Violet		Violet				Red		Red		

Case 6	**Case 7**	**Case 8**	**Case 9**	**Case 10**					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
				Q				T	
	Yellow				Yellow	Q			Green
T	Red		Yellow	T	Red		Yellow	Q	Violet
P	Green	T	Red	P	Green	T	Red		Yellow
Q	Violet	P	Green		Violet	P	Green		Red
		Q	Violet				Violet	P	

3) Box Q does not have a Violet color. There are as many boxes above one with White color as the below Box S. Box S is below white. Cases 1, 3, 4(b), 5, 6, 7, and 10 are not satisfying the given condition. That is why they are eliminated.

Case 2(a)	**Case 2(b)**	**Case 4(a)**	**Case 8**	**Case 9**					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P	White	P		T	White	Q	White		White
Q		Q	White		Green		Yellow	Q	
	Yellow		Yellow	P	Violet	T	Red		Yellow
T	Red	T	Red	Q		P	Green	T	Red
	Green	S	Green		Yellow		Violet	P	Green
S	Violet		Violet	S	Red	S		S	Violet

4) Three boxes are between Box U and the one which has Black color. Cases 2(a), Case 2(b), Case 4(a), and Case 9 are not satisfying the given condition. That is why they are eliminated.

Box	**Color**
Q	White
U	Yellow
T	Red
P	Green
	Violet
S	Black

The final arrangement is:

Box	**Color**
Q	White
U	Yellow
T	Red
P	Green
R	Violet
S	Black

Hence, Four boxes are kept above the box of the one that has the Violet color.

YourMockTest.com — Free Study Material

Q84. Answer: (a) Q-White

1) There is one box between Box P and the one with a Yellow color. The box which has Red is immediately below the box which has a yellow color. There is one box between the boxes with a Red color and Box Q.

Case 1	Case 2	Case 3	Case 4	Case 5					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P		P							Yellow
		Q		P					Red
	Yellow		Yellow	Q		P		P	
	Red		Red		Yellow	Q		Q	
					Red		Yellow		
Q							Red		

Case 6	Case 7	Case 8	Case 9	Case 10					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
				Q					
	Yellow				Yellow	Q			
	Red		Yellow		Red		Yellow	Q	
P			Red	P			Red		Yellow
Q		P				P			Red
		Q						P	

2) The one which has Green color is immediately above the one which has Violet but immediately below Box T.

Case 1	Case 2	Case 3	Case 4(a)	Case 4(b)	Case 5						
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P		P		T		T					Yellow
		Q		P	Green		Green	T		T	Red
	Yellow		Yellow	Q	Violet	P	Violet	P	Green	P	Green
T	Red	T	Red		Yellow	Q		Q	Violet	Q	Violet
	Green		Green		Red		Yellow		Yellow		
Q	Violet		Violet				Red		Red		

Case 6	Case 7	Case 8	Case 9	Case 10					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
				Q				T	
	Yellow				Yellow	Q			Green
T	Red		Yellow	T	Red		Yellow	Q	Violet
P	Green	T	Red	P	Green	T	Red		Yellow
Q	Violet	P	Green		Violet	P	Green		Red
		Q	Violet				Violet	P	

3) Box Q does not have a Violet color. There are as many boxes above one with White color as the below Box S. Box S is below white. Cases 1, 3, 4(b), 5, 6, 7, and 10 are not satisfying the given condition. That is why they are eliminated.

Case 2(a)	Case 2(b)	Case 4(a)	Case 8	Case 9					

YourMockTest.com — Free Study Material

Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P	White	P		T	White	Q	White		White
Q		Q	White		Green		Yellow	Q	
	Yellow		Yellow	P	Violet	T	Red		Yellow
T	Red	T	Red	Q		P	Green	T	Red
	Green	S	Green		Yellow		Violet	P	Green
S	Violet		Violet	S	Red	S		S	Violet

4) Three boxes are between Box U and the one which has Black color. Cases 2(a), Case 2(b), Case 4(a), and Case 9 are not satisfying the given condition. That is why they are eliminated.

Box	Color
Q	White
U	Yellow
T	Red
P	Green
	Violet
S	Black

The final arrangement is:

Box	Color
Q	White
U	Yellow
T	Red
P	Green
R	Violet
S	Black

Box Q is White color. Hence, Q-White is true.

Q85. Answer: (b) The one who has black color

1) There is one box between Box P and the one with a Yellow color. The box which has Red is immediately below the box which has a yellow color. There is one box between the boxes with a Red color and Box Q.

Case 1	Case 2	Case 3	Case 4	Case 5					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P		P							Yellow
		Q		P					Red
	Yellow		Yellow	Q		P		P	
	Red		Red		Yellow	Q		Q	
					Red		Yellow		
Q							Red		

Case 6	Case 7	Case 8	Case 9	Case 10					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
				Q					

YourMockTest.com — Free Study Material

	Yellow				Yellow	Q			
	Red		Yellow		Red		Yellow	Q	
P			Red	P			Red		Yellow
Q		P				P			Red
		Q						P	

2) The one which has Green color is immediately above the one which has Violet but immediately below Box T.

Case 1	**Case 2**	**Case 3**	**Case 4(a)**	**Case 4(b)**	**Case 5**						
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P		P		T		T					Yellow
		Q		P	Green		Green	T		T	Red
	Yellow		Yellow	Q	Violet	P	Violet	P	Green	P	Green
T	Red	T	Red		Yellow	Q		Q	Violet	Q	Violet
	Green		Green		Red		Yellow		Yellow		
Q	Violet		Violet				Red		Red		

Case 6	**Case 7**	**Case 8**	**Case 9**	**Case 10**					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
				Q				T	
	Yellow				Yellow	Q			Green
T	Red		Yellow	T	Red		Yellow	Q	Violet
P	Green	T	Red	P	Green	T	Red		Yellow
Q	Violet	P	Green		Violet	P	Green		Red
		Q	Violet				Violet	P	

3) Box Q does not have a Violet color. There are as many boxes above one with White color as the below Box S. Box S is below white. Cases 1, 3, 4(b), 5, 6, 7, and 10 are not satisfying the given condition. That is why they are eliminated.

Case 2(a)	**Case 2(b)**	**Case 4(a)**	**Case 8**	**Case 9**					
Box	Color	Box	Color	Box	Color	Box	Color	Box	Color
P	White	P		T	White	Q	White		White
Q		Q	White		Green		Yellow	Q	
	Yellow		Yellow	P	Violet	T	Red		Yellow
T	Red	T	Red	Q		P	Green	T	Red
	Green	S	Green		Yellow		Violet	P	Green
S	Violet		Violet	S	Red	S		S	Violet

4) Three boxes are between Box U and the one which has Black color. Cases 2(a), Case 2(b), Case 4(a), and Case 9 are not satisfying the given condition. That is why they are eliminated.

Box	**Color**
Q	White
U	Yellow
T	Red

YourMockTest.com — Free Study Material

P	Green
	Violet
S	Black

The final arrangement is:

Box	Color
Q	White
U	Yellow
T	Red
P	Green
R	Violet
S	Black

Hence, the one who has the Black color(S) lives in the bottommost position.

Q86. Answer: (e) Both I and II follows

The least possible Venn diagram for the given statement is as follows:

Conclusion:

I. Some Headlight is not Tubelight. → True (Some Headlight that is part of the Lamp is not Tubelight.)

II. Some Bulb is not Lamp → True (Some Bulb that is part of Tubelight is not Lamp.)

Hence, Both I and II follow.

Q87. Answer: (c) Neither I nor II follows

The least possible Venn diagram for the given statement is as follows:

Conclusions:

I. Some Fridge is not Fan. → False (It could be that all Fridge are Fan and still some portion of Fan is not Fridge.)

II. Some Cooler being Fridge is a possibility. → False (As it is given that Only AC is Cooler. That is why, All or some Cooler cannot be Fridge.)

Hence, Neither I nor II follows.

Q88. Answer: (d) Only II follows

The least possible Venn diagram for the given statement is as follows:

Conclusion:

I. Some Scientists are doctors. → False (It is given that Some Doctors are not Scientists but we cannot say that some scientists are doctors.)

The possible diagram could be this also:

II. Some Lawyers being Pilots is a possibility. → True (No direct relation between Lawyers and Pilots can be inferred. So, Some Lawyers being Pilots is a possibility.)

Hence, Only II follows.

Q89. Answer: (b) None

Given Word: BETRAYAL

B	E	T	R	A	Y	A	L
2	5	20	18	1	25	1	12

Forward Pair: None

Backward Pair: None

Hence, No pairs of letters are there in the word “BETRAYAL” each of which has as many letters between them as in the English alphabetical series.

YourMockTest.com — Free Study Material

Q90. Answer: (c) Six

1) Seven persons are sitting between W and Q. W sits at the extreme end of the row. C is sitting to the immediate right of Q.

2) The number of persons sitting between W and C is double the number of persons sitting between C and P. K is sitting fifth to the left of P. In Case 1, Eight persons are sitting between W and C. So, four persons would be sitting between C and P(Either from the left or right of C). However, the condition that K is sitting fifth to the left of P cannot be fulfilled in Case 1. So, Case 1 is eliminated.

3) Three persons are sitting between T and K. T and P are not immediate neighbors

4) Two persons are sitting between C and F. F is the immediate neighbor of M. Two persons are sitting to the left of T. F is not an immediate neighbor of P and Q.

5) F is the immediate neighbor of M. Not more than two persons are sitting between Q and M.

The final arrangement is:

Hence, Six persons are sitting between W and C.

Q91. Answer: (b) the one who is an immediate neighbor of F.

1) Seven persons are sitting between W and Q. W sits at the extreme end of the row. C is sitting to the immediate right of Q.

2) The number of persons sitting between W and C is double the number of persons sitting between C and P. K is sitting fifth to the left of P. In Case 1, Eight persons are sitting between W and C. So, four persons would be sitting between C and P(Either from the left or right of C). However, the condition that K is sitting fifth to the left of P cannot be fulfilled in Case 1. So, Case 1 is eliminated.

3) Three persons are sitting between T and K. T and P are not immediate neighbors

4) Two persons are sitting between C and F. F is the immediate neighbor of M. Two persons are sitting to the left of T. F is not an immediate neighbor of P and Q.

5) F is the immediate neighbor of M. Not more than two persons are sitting between Q and M.

The final arrangement is:

Q is sitting ninth from the right end and M is sitting third to the right of Q. Hence, the one who is an immediate neighbor of F(M) sits third to the right of the ninth person from the right end.

Q92. Answer: (d) 23

1) Seven persons are sitting between W and Q. W sits at the extreme end of the row. C is sitting to the immediate right of Q.

2) The number of persons sitting between W and C is double the number of persons sitting between C and P. K is sitting fifth to the left of P. In Case 1, Eight persons are sitting between W and C. So, four persons would be sitting between C and P(Either from the left or right of C). However, the condition that K is sitting fifth to the left of P cannot be fulfilled in Case 1. So, Case 1 is eliminated.

3) Three persons are sitting between T and K. T and P are not immediate neighbors

4) Two persons are sitting between C and F. F is the immediate neighbor of M. Two persons are sitting to the left of T. F is not an immediate neighbor of P and Q.

5) F is the immediate neighbor of M. Not more than two persons are sitting between Q and M.

The final arrangement is:

Hence, Twenty-three(23) persons are sitting in a row.

Q93. Answer: (d) Gia

1) Romi lives on Floor 4 of Flat A. Suman lives two floors above Dia and both live in the same flat. Two floors are between the Kia and Dia floors.

	Case 1	**Case 2**	**Case 3**	**Case 4**				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kia	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman	Romi	Suman
3	Suman			Suman				
2						Dia		Dia
1	Dia			Dia				

2) Kia, who lives two floors above Gia in the same flat.

	Case 1	**Case 2**	**Case 3**	**Case 4**				

Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kia	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman	Romi	Suman
3	Suman			Suman		Gia	Gia	
2		Gia		Gia		Dia		Dia
1	Dia			Dia				

3) Bhumi lives west of Puspa on the odd floor number. Neha does not live in the same flat as Bhumi not on the same floor as Kia.

Cases 2 and 3 are eliminated as it does not follow the given conditions.

	Case 1(a)	**Case 1(b)**	**Case 4**			
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Bhumi	Pushpa	Bhumi	Puspa	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman
3	Suman	Neha	Suman		Gia	Neha
2		Gia		Gia		Dia
1	Dia		Dia	Neha	Bhumi	Pushpa

4) Amar does not live on Flat A. Amar does not live adjacent to the floors of Gia. Case 1(a) and Case 1(b) are eliminated as it does not satisfy the given conditions.

Floor	**Flat A**	**Flat B**
5	Kia	Amar
4	Romi	Suman
3	Gia	Neha
2		Dia
1	Bhumi	Pushpa

The final arrangement is:

Floor	**Flat A**	**Flat B**
5	Kia	Amar
4	Romi	Suman
3	Gia	Neha
2	Mahi	Dia
1	Bhumi	Pushpa

All except Gia live in Flat B. Gia is living in Flat A. Hence, Gia is the odd one out.

Q94. Answer: (e) Three

1) Romi lives on Floor 4 of Flat A. Suman lives two floors above Dia and both live in the same flat. Two floors are between the Kia and Dia floors.

	Case 1	**Case 2**	**Case 3**	**Case 4**				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kia	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman	Romi	Suman
3	Suman			Suman				
2						Dia		Dia

YourMockTest.com — Free Study Material

1	Dia			Dia				

2) Kia, who lives two floors above Gia in the same flat.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kia	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman	Romi	Suman
3	Suman			Suman		Gia	Gia	
2		Gia		Gia		Dia		Dia
1	Dia			Dia				

3) Bhumi lives west of Puspa on the odd floor number. Neha does not live in the same flat as Bhumi not on the same floor as Kia.

Cases 2 and 3 are eliminated as it does not follow the given conditions.

	Case 1(a)	Case 1(b)	Case 4			
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Bhumi	Pushpa	Bhumi	Puspa	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman
3	Suman	Neha	Suman		Gia	Neha
2		Gia		Gia		Dia
1	Dia		Dia	Neha	Bhumi	Pushpa

4) Amar does not live on Flat A. Amar does not live adjacent to the floors of Gia. Case 1(a) and Case 1(b) are eliminated as it does not satisfy the given conditions.

Floor	Flat A	Flat B
5	Kia	Amar
4	Romi	Suman
3	Gia	Neha
2		Dia
1	Bhumi	Pushpa

The final arrangement is:

Floor	Flat A	Flat B
5	Kia	Amar
4	Romi	Suman
3	Gia	Neha
2	Mahi	Dia
1	Bhumi	Pushpa

Hence, Three floors are there in between Bhumi and Kia.

Q95. Answer: (a) Mahi

1) Romi lives on Floor 4 of Flat A. Suman lives two floors above Dia and both live in the same flat. Two floors are between the Kia and Dia floors.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kia	Kia	

YourMockTest.com — Free Study Material

4	Romi	Kia	Romi	Kia	Romi	Suman	Romi	Suman
3	Suman			Suman				
2						Dia		Dia
1	Dia			Dia				

2) Kia, who lives two floors above Gia in the same flat.

	Case 1	**Case 2**	**Case 3**	**Case 4**				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kia	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman	Romi	Suman
3	Suman			Suman		Gia	Gia	
2		Gia		Gia		Dia		Dia
1	Dia			Dia				

3) Bhumi lives west of Puspa on the odd floor number. Neha does not live in the same flat as Bhumi not on the same floor as Kia. Cases 2 and 3 are eliminated as it does not follow the given conditions.

	Case 1(a)	**Case 1(b)**	**Case 4**			
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Bhumi	Pushpa	Bhumi	Puspa	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman
3	Suman	Neha	Suman		Gia	Neha
2		Gia		Gia		Dia
1	Dia		Dia	Neha	Bhumi	Pushpa

4) Amar does not live on Flat A. Amar does not live adjacent to the floors of Gia. Case 1(a) and Case 1(b) are eliminated as it does not satisfy the given conditions.

Floor	**Flat A**	**Flat B**
5	Kia	Amar
4	Romi	Suman
3	Gia	Neha
2		Dia
1	Bhumi	Pushpa

The final arrangement is:

Floor	**Flat A**	**Flat B**
5	Kia	Amar
4	Romi	Suman
3	Gia	Neha
2	Mahi	Dia
1	Bhumi	Pushpa

All are related to the person living on the Floor immediately below the floor in which they live but in a different flat. Puspa is living immediately below the floor of Mahi but in a different flat. Hence, Mahi is related to Pushpa.

YourMockTest.com — Free Study Material

Q96. Answer: (d) Floor 2 of Flat A

1) Romi lives on Floor 4 of Flat A. Suman lives two floors above Dia and both live in the same flat. Two floors are between the Kia and Dia floors.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kia	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman	Romi	Suman
3	Suman			Suman				
2						Dia		Dia
1	Dia			Dia				

2) Kia, who lives two floors above Gia in the same flat.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kia	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman	Romi	Suman
3	Suman			Suman		Gia	Gia	
2		Gia		Gia		Dia		Dia
1	Dia			Dia				

3) Bhumi lives west of Puspa on the odd floor number. Neha does not live in the same flat as Bhumi not on the same floor as Kia.

Cases 2 and 3 are eliminated as it does not follow the given conditions.

	Case 1(a)	Case 1(b)	Case 4			
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Bhumi	Pushpa	Bhumi	Puspa	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman
3	Suman	Neha	Suman		Gia	Neha
2		Gia		Gia		Dia
1	Dia		Dia	Neha	Bhumi	Pushpa

4) Amar does not live on Flat A. Amar does not live adjacent to the floors of Gia. Case 1(a) and Case 1(b) are eliminated as it does not satisfy the given conditions.

Floor	Flat A	Flat B
5	Kia	Amar
4	Romi	Suman
3	Gia	Neha
2		Dia
1	Bhumi	Pushpa

The final arrangement is:

Floor	Flat A	Flat B
5	Kia	Amar
4	Romi	Suman
3	Gia	Neha

YourMockTest.com — Free Study Material

2	Mahi	Dia
1	Bhumi	Pushpa

Hence, Mahi lives on Floor 2 of Flat A.

Q97. Answer: (b) Suman

1) Romi lives on Floor 4 of Flat A. Suman lives two floors above Dia and both live in the same flat. Two floors are between the Kia and Dia floors.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kia	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman	Romi	Suman
3	Suman			Suman				
2						Dia		Dia
1	Dia			Dia				

2) Kia, who lives two floors above Gia in the same flat.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kia	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman	Romi	Suman
3	Suman			Suman		Gia	Gia	
2		Gia		Gia		Dia		Dia
1	Dia			Dia				

3) Bhumi lives west of Puspa on the odd floor number. Neha does not live in the same flat as Bhumi not on the same floor as Kia.

Cases 2 and 3 are eliminated as it does not follow the given conditions.

	Case 1(a)	Case 1(b)	Case 4			
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Bhumi	Pushpa	Bhumi	Puspa	Kia	
4	Romi	Kia	Romi	Kia	Romi	Suman
3	Suman	Neha	Suman		Gia	Neha
2		Gia		Gia		Dia
1	Dia		Dia	Neha	Bhumi	Pushpa

4) Amar does not live on Flat A. Amar does not live adjacent to the floors of Gia. Case 1(a) and Case 1(b) are eliminated as it does not satisfy the given conditions.

Floor	Flat A	Flat B
5	Kia	Amar
4	Romi	Suman
3	Gia	Neha
2		Dia
1	Bhumi	Pushpa

The final arrangement is:

Floor	Flat A	Flat B

YourMockTest.com — Free Study Material

5	Kia	Amar
4	Romi	Suman
3	Gia	Neha
2	Mahi	Dia
1	Bhumi	Pushpa

Hence, Suman lives to the east of Romi.

Q98. Answer: (a) South West

1) Car T starts from point A and travels towards the south for 10 KM and reaches point B. From B it takes a left turn and travels for 15 KM to reach point C. From Point C it takes a left turn and travels for 8 KM to reach Point D.

2) From D it turns left and travels 20 KM to reach a point E. From E it turns towards the left and reaches point F after traveling 11 KM. From F it takes a left turn and travels 10 KM to reach a point G.

3) From G it takes a left turn and travels 7 KM to reach a point H. From H it takes a left turn and travels 3 KM to reach its final destination.

According to the information given in the question we can draw the below figure:

Hence, F is in South West direction from B.

Q99. Answer: (d) √221

1) Car T starts from point A and travels towards the south for 10 KM and reaches point B. From B it takes a left turn and travels for 15 KM to reach point C. From Point C it takes a left turn and travels for 8 KM to reach Point D.

2) From D it turns left and travels 20 KM to reach a point E. From E it turns towards the left and reaches point F after traveling 11 KM. From F it takes a left turn and travels 10 KM to reach a point G.

3) From G it takes a left turn and travels 7 KM to reach a point H. From H it takes a left turn and travels 3 KM to reach its final destination.

According to the information given in the question we can draw the below figure:

$(EG)^2 = \sqrt{\{(EF)2 + (FG)2\}}$

$= \sqrt{\{(11)2 + (10)2\}}$

$= \sqrt{(121+100)}$

$= \sqrt{221}$

Hence, the shortest distance between E and G is √221.

Q100. Answer: (d) North East

1) Car T starts from point A and travels towards the south for 10 KM and reaches point B. From B it takes a left turn and travels for 15 KM to reach point C. From Point C it takes a left turn and travels for 8 KM to reach Point D.

2) From D it turns left and travels 20 KM to reach a point E. From E it turns towards the left and reaches point F after traveling 11 KM. From F it takes a left turn and travels 10 KM to reach a point G.

3) From G it takes a left turn and travels 7 KM to reach a point H. From H it takes a left turn and travels 3 KM to reach its final destination.

According to the information given in the question we can draw the below figure:

Hence, Point D is in North East direction from point G.

More previous year papers and mock tests: **www.yourmocktest.com/pyq**

YourMockTest.com – Free Study Material