SBI PO Prelims Memory Based Paper (Held On: 8 March 2025 Shift 3) (Previous Year Paper)

SBI Probationary Officer (PO) • 2025 • 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-8-march-2025-shift…

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

ENGLISH LANGUAGE

Q1. Which of the phrases given below the sentence should replace the word/phrase that is underlined in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, mark 'No correction required' as the answer.

The man's and his wife's fight disrupted the sleep of the people early in the morning.

(a) Man's and his wife's fight
(b) The man and his wife's fight
(c) The man's and his wife fight
(d) The man and his wife fight
(e) No correction required

Q2. Which of the phrases given below the sentence should replace the word/phrase that is underlined in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, mark 'No correction required' as the answer.

I am sorry to say this but neither my brother nor my friends is going to attend your wedding.

(a) neither my brother or my friends
(b) either my brother nor my friends
(c) not my brother neither my friends are
(d) neither my brother nor my friends are
(e) No correction required

Q3. Which of the phrases given below the sentence should replace the word/phrase that is underlined in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, mark 'No correction required' as the answer.

When the final results came out, it was obvious that Ramesh was better of the two brothers.

(a) was the best of the two brothers
(b) was the better of the two brothers
(c) was the good of the two brothers
(d) were better of the two brothers
(e) No correction required

Directions

Directions: In the following passage, some words have been deleted. Select the most appropriate option to fill in each blank.

Rice and millet are two of the most important staple crops in the world. However, recent studies have shown a significant decline in their (A) _____. This decline in production can be attributed to various factors, including climate change, soil degradation, and water scarcity. To address these challenges, countries must come together and work towards sustainable agriculture practices. It is crucial to (B) ____ innovative solutions to enhance crop yield without harming the environment. Collaborative efforts and sharing of resources can lead to (C) ____ results. Additionally, educating farmers about modern farming techniques and providing them with the necessary tools and support is paramount. Such initiatives not only help in improving crop production but also (D) ____ farmers' livelihoods. Governments, NGOs, and the private sector must (E) ____ hands to create policies and programs that are focused on long-term sustainability. By doing so, we can ensure that future generations have access to

sufficient food supplies. Ultimately, it is a shared responsibility to (F) _____ our planet while meeting the food demands of a growing population.

Q4. Which of the following is the most appropriate option to fill in the blank labelled as (A)?

(a) abundance
(b) production
(c) consumption
(d) distribution
(e) import

Q5. Which of the following is the most appropriate option to fill in the blank labelled as (B)?

(a) acknowledge
(b) discover
(c) initiate
(d) implement
(e) develop

Q6. Which of the following is the most appropriate option to fill in the blank labelled as (C)?

(a) tangible
(b) consistent
(c) variable
(d) mixed
(e) negative

Q7. Which of the following is the most appropriate option to fill in the blank labelled as (D)?

(a) facilitate
(b) impact
(c) diminish
(d) worsen
(e) secure

Q8. Which of the following is the most appropriate option to fill in the blank labelled as (E)?

(a) hold
(b) shake
(c) join
(d) combine
(e) clap

Q9. Which of the following is the most appropriate option to fill in the blank labelled as (F)?

(a) nurture
(b) exploit
(c) degrade
(d) abandon
(e) isolate

Q10. Directions: In the following sentence, four words given in bold are marked as A, B, C, and D, which are possible pairs to be interchanged. Choose the pair(s) of words that need to be interchanged to make the sentence grammatically correct and meaningful. If no interchange is required, mark option 5 i.e., "No interchange required" as your answer.

Leveraging India's widespread (A) dividend demands a focus on mitigate (B) healthcare to preventive (C) the economic and productivity challenges posed by demographic (D) chronic diseases.

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

YourMockTest.com — Free Study Material

Q11. Directions: In the following sentence, four words given in bold are marked as A, B, C, and D, which are possible pairs to be interchanged. Choose the pair(s) of words that need to be interchanged to make the sentence grammatically correct and meaningful. If no interchange is required, mark option 5 i.e., "No interchange required" as your answer.

The demographic dividend (A) offers economic growth opportunities, harness (B) on investments in health, education, and skill development to contingent (C) the working-age population's potential (D).

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

Q12. Directions: In the following sentence, four words given in bold are marked as A, B, C, and D, which are possible pairs to be interchanged. Choose the pair(s) of words that need to be interchanged to make the sentence grammatically correct and meaningful. If no interchange is required, mark option 5 i.e., "No interchange required" as your answer.

Reality shows genuine (A) emotions for profit, distorting (B) perceptions of the real world, and urging (C) youth to seek exploit (D) human connection amidst the chaos.

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

Q13. Directions: In the following sentence, four words given in bold are marked as A, B, C, and D, which are possible pairs to be interchanged. Choose the pair(s) of words that need to be interchanged to make the sentence grammatically correct and meaningful. If no interchange is required, mark option 5 i.e., "No interchange required" as your answer.

Minimalism advocates intelligent choices, prioritizing (A) living spaces, and decluttering (B) necessities over content (C), leading to a more extravagance (D) and eco-friendly lifestyle.

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

Directions

Directions: Given below is a set of five sentences that, when properly sequenced, form a coherent paragraph. Arrange the sentences in the correct sequence and answer the questions that follow.

A. Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination.

B. Safety remains a top priority for those visiting Chernobyl.

C. The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations.

D. The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay.

E. A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time.

Q14. Which of the following is the introductory sentence after rearrangement?

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

YourMockTest.com — Free Study Material

Q15. Which of the following is the second sentence after rearrangement?

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

Q16. Which of the following is the third sentence after rearrangement?

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

Q17. Which of the following is the fourth sentence after rearrangement?

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

Q18. Which of the following is the last sentence after rearrangement?

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

Directions

Directions: A passage is given which is divided into five paragraphs. Read the passage carefully to answer the given questions. Each question will have five alternatives as its answer, choose the correct option as your answer.

Company X, a burgeoning name in the children's market, has recently released its quarterly sales analysis, revealing an interesting diversification strategy. Originally recognized as a toymaker, the company has successfully expanded its product line to include a surprising range of items. Notably, the sales of children's earrings and other jewellery have seen a significant swell, contributing substantially to the company's revenue. This unexpected growth highlights Company X's ability to tap into new market segments. Furthermore, the company has made significant strides in the apparel sector, with its line of themed clothing for children proving particularly popular. The analysis indicates a consistent increase in sales, especially during festive seasons and school holidays. This diversification into apparel has not only broadened Company X's customer base but also provided a stable revenue stream, mitigating the seasonal fluctuations inherent in the toy industry. The company's foray into the gift market, offering curated gift boxes for various occasions, has also been met with considerable success. These boxes, combining toys, accessories, and apparel, have become a preferred choice for parents seeking convenient and comprehensive gift solutions. The analysis suggests that this segment holds considerable potential for future growth, particularly with the increasing trend of personalized gifting However, the analysis also reveals certain challenges. The company faces stiff competition from established players in the apparel and jewellery sectors, and maintaining a competitive edge requires continuous innovation and marketing efforts. Moreover, the report indicates that the company needs to expand its distribution space to cater to the growing demand. Current warehouse and logistical capacities are nearing their limits, potentially hindering future expansion. Despite these challenges, the overall outlook for Company X remains positive. The firm's ability to _____, coupled with its strong brand recognition among its target audience, positions it for continued growth. The company plans to invest in expanding its online presence and exploring new international markets. Future growth strategies will focus on leveraging the success of its diversified product lines and optimizing its supply chain to ensure efficient delivery and customer satisfaction. The company’s strategic shift to include jewellery, apparel, and gifts shows a well thought out plan to combat any single product market fluctuations.

Q19. According to the passage, which segment held considerable potential for future growth?

(a) Curated gift boxes
(b) Children’s earrings
(c) Themed clothing

YourMockTest.com — Free Study Material

(d) Toys
(e) Seasonal items

Q20. According to the passage, which of the following statements is correct?
A) The company has always focused on apparel and jewellery.
B) Children's earrings and other jewellery have become a significant part of the company's revenue.
C) The themed clothing line has not been successful for Company X.
(a) Only A
(b) Only B
(c) Only C
(d) A and B
(e) B and C

Q21. According to the passage, which of the following statements is incorrect?
A) Company X's sales have been stable throughout the year.
B) Company X has achieved brand recognition among its target audience.
C) The company needs to improve its distribution capabilities.
(a) Only A
(b) Only B
(c) Only C
(d) A and C
(e) B and C

Q22. According to the passage, which of the following statements is correct?
A) Company X's warehouse and logistics capacities are currently more than sufficient.
B) The company has made significant strides during festive seasons and school holidays.
C) The themed clothing line has proven popular with children.
(a) Only A
(b) Only B
(c) Only C
(d) B and C
(e) A and C

Q23. According to the passage, which of the following statements is incorrect?
A) Company X has expanded into new international markets.
B) The curated gift boxes are preferred by parents for their convenience.
C) Company X originally focused on making toys.
(a) Only A
(b) Only B
(c) Only C
(d) A and B
(e) B and C

Q24. It can be inferred from the passage that:
(a) Company X's success is solely attributed to its toy line.
(b) The company's focus on a single product line would likely result in revenue fluctuations.
(c) There is no significant competition in the children's jewellery sector.
(d) Themed clothing did not contribute to revenue growth.
(e) All future growth will come from the international market.

YourMockTest.com — Free Study Material

Q25. What will fit in the blank taken from the passage: "The firm's ability to _____, coupled with its strong brand recognition among its target audience, positions it for continued growth."?

(a) stabilize and identify
(b) reduce and localize
(c) adapt and diversify
(d) innovate and stagnate
(e) develop and quantify

Q26. Which of the following words is similar in meaning to "swell" in the context of the passage?

(a) decrease
(b) surge
(c) stabilize
(d) compress
(e) diminish

Directions

Directions: A passage is given which is divided into five paragraphs. Read the passage carefully to answer the given questions. Each question will have five alternatives as its answer, choose the correct option as your answer.

Company X, a burgeoning name in the children's market, has recently released its quarterly sales analysis, revealing an interesting diversification strategy. Originally recognized as a toymaker, the company has successfully expanded its product line to include a surprising range of items. Notably, the sales of children's earrings and other jewellery have seen a significant swell, contributing substantially to the company's revenue. This unexpected growth highlights Company X's ability to tap into new market segments. Furthermore, the company has made significant strides in the apparel sector, with its line of themed clothing for children proving particularly popular. The analysis indicates a consistent increase in sales, especially during festive seasons and school holidays. This diversification into apparel has not only broadened Company X's customer base but also provided a stable revenue stream, mitigating the seasonal fluctuations inherent in the toy industry. The company's foray into the gift market, offering curated gift boxes for various occasions, has also been met with considerable success. These boxes, combining toys, accessories, and apparel, have become a preferred choice for parents seeking convenient and comprehensive gift solutions. The analysis suggests that this segment holds considerable potential for future growth, particularly with the increasing trend of personalized gifting However, the analysis also reveals certain challenges. The company faces stiff competition from established players in the apparel and jewellery sectors, and maintaining a competitive edge requires continuous innovation and marketing efforts. Moreover, the report indicates that the company needs to expand its distribution space to cater to the growing demand. Current warehouse and logistical capacities are nearing their limits, potentially hindering future expansion. Despite these challenges, the overall outlook for Company X remains positive. The firm's ability to _____, coupled with its strong brand recognition among its target audience, positions it for continued growth. The company plans to invest in expanding its online presence and exploring new international markets. Future growth strategies will focus on leveraging the success of its diversified product lines and optimizing its supply chain to ensure efficient delivery and customer satisfaction. The company’s strategic shift to include jewellery, apparel, and gifts shows a well thought out plan to combat any single product market fluctuations.

Q27. Which of the following words is similar in meaning to "space" in the context of the passage?

(a) capacity
(b) deficiency
(c) concession
(d) limitation
(e) interval

Q28. Which of the following words is similar in meaning to "firm" in the context of the passage?

(a) unstable
(b) soft
(c) resolute
(d) temporary
(e) company

YourMockTest.com — Free Study Material

Q29. Directions: In the following questions, a sentence is given with five words marked as (A), (B), (C), (D) and (E). These words may or may not be placed in their places. Four options with different arrangements of these words are given. Mark the option with the correct arrangement as the answer. If no change is required, mark 'No arrangement required' as your answer

The travel bus(A) said that traveling by way(B) was the cheapest faster(C), but we agent(D) by plane because it was went(E)

(a) ABDCE
(b) ACBED
(c) DABCE
(d) DABEC
(e) No rearrangement

Q30. Directions: In the following questions, a sentence is given with five words marked as (A), (B), (C), (D) and (E). These words may or may not be placed in their places. Four options with different arrangements of these words are given. Mark the option will the correct arrangement as the answer. If no change is required, mark 'No arrangement required' as your answer

I am house(A) a big friends(B) next week at my inviting(C) and I am party(D) all my close having(E)

(a) ABDCE
(b) ACBDE
(c) EDACB
(d) EDBAC
(e) No rearrangement

Q31. Directions: In the following questions, a sentence is given with five words marked as (A), (B), (C), (D) and (E). These words may or may not be placed in their places. Four options with different arrangements of these words are given. Mark the option with the correct arrangement as the answer. If no change is required, mark 'No arrangement required' as your answer.

A head(A) is a bunch(B) bird with a wood-pecker(C) of small(D) feathers on its red(E).

(a) CDBEA
(b) ABCDE
(c) CDEAB
(d) ACDBE
(e) No rearrangement

Q32. Directions: In the following questions, a sentence is given with five words marked as (A), (B), (C), (D) and (E). These words may or may not be placed in their places. Four options with different arrangements of these words are given. Mark the option with the correct arrangement as the answer. If no change is required, mark 'No arrangement required' as your answer.

Grew(A) created the with(B) from the lower part, earth(C) plants on it and God(D) it populated(E) animals.

(a) ABDCE
(b) ACBDE
(c) DCAEB
(d) DCEAB
(e) No rearrangements

Q33. Directions: Find out the most effective word from the given options to fill the blanks of the following question.

1. Most doctors will _____ their patients to obtain regular check-ups so that they can avoid serious illnesses.
2. The purpose of most commercials is to _____ consumers to buy a particular product or service.

(a) Exhort
(b) Discourage
(c) Restrain
(d) Inhibit
(e) Curb

YourMockTest.com — Free Study Material

Q34. Directions: Find out the most effective word from the given options to fill the blanks of the following question.

1. Her idea about eating plastic fruit is totally _____.
2. My teacher is really good about ignoring _____ comments from the clowns in her class.

(a) Sensible
(b) Appreciable
(c) Inane
(d) Audible
(e) Visible

Q35. Directions: Find out the most effective word from the given options to fill the blanks of the following question.

1. The devilish _____ laughed after he conned an old lady out of her savings.
2. The district attorney filed charges against the _____ narcotics officer for collusion with the drug traffickers.

(a) Decent
(b) Rogue
(c) Ethical
(d) Scrupulous
(e) Honest

Q36. Directions: In each of the questions below, five sentences are given that may or may not contain an error. Choose the one that is grammatically or contextually incorrect and meaningless. If all the sentences are correct, mark 'All are correct' as your answer.

(a) The data shows a significant increase in customer satisfaction.
(b) The company's new policy affects all employees immediately.
(c) There is less people attending the lecture than expected.
(d) She runs more quickly than anyone else on the team.
(e) All are correct.

Q37. Directions: In each of the questions below, five sentences are given that may or may not contain an error. Choose the one that is grammatically or contextually incorrect and meaningless. If all the sentences are correct, mark 'All are correct' as your answer.

(a) The committee members meet every Wednesday to discuss new proposals.
(b) The information you provided are very helpful for our research.
(c) He has a natural talent for drawing and painting.
(d) The weather tomorrow is expected to be sunny with a chance of rain in the afternoon.
(e) All are correct.

Q38. Directions: In each of the questions below, five sentences are given that may or may not contain an error. Choose the one that is grammatically or contextually incorrect and meaningless. If all the sentences are correct, mark 'All are correct' as your answer.

(a) Her singing is absolutely beautiful.
(b) The student were excited about the upcoming holidays.
(c) The book on the table belongs to John.
(d) They have decided to sell their house and move abroad.
(e) All are correct.

Q39. Directions: In each of the questions below, five sentences are given that may or may not contain an error. Choose the one that is grammatically or contextually incorrect and meaningless. If all the sentences are correct, mark 'All are correct as your answer'.

(a) The experiment yielded unexpected results, which were analyzed further.
(b) John and Sarah is going to the concert together.
(c) The shop offers a variety of organic products.
(d) She always finishes her work before the deadline.
(e) All are correct.

YourMockTest.com — Free Study Material

Q40. Directions: In each of the questions below, five sentences are given that may or may not contain an error. Choose the one that is grammatically or contextually incorrect and meaningless. If all the sentences are correct, mark 'All are correct as your answer'.

(a) He quickly realized that he had made a mistake.
(b) She enjoys hiking, swimming, and to ride horses.
(c) The presentation was well-received by the audience.
(d) Their teamwork and cooperation led to success.
(e) All are correct.

QUANTITATIVE APTITUDE

Directions

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

Three companies, A, B, and C, manufacture and sell two types of vehicles: Cars and Buses. The number of Buses sold by company C is 20 less than that of company A. The total number of Buses sold by all three companies is 245. The total number of Buses and Cars sold by company A is 275. The number of Cars sold by company C is equal to the number of Cars sold by company B, which is 120. The ratio of the number of Cars sold by company A and C is 23:15.

Q41. If Company A's Cars have a 20% higher fuel efficiency than Company B's Cars, and Company B's Cars have a 10% higher fuel efficiency than Company C's Cars, what is the approximate percentage difference in fuel efficiency between Company A's Cars and Company C's Cars?

(a) 28%
(b) 30%
(c) 32%
(d) 34%
(e) 36%

Q42. If Company A decides to increase the selling price of each Car by 15% and each Bus by 10%, and the original selling price of a Car was Rs. 500,000 and a Bus was Rs. 800,000, what is the total increase in revenue for Company A?

(a) Rs. 20,440,000
(b) Rs. 21,560,000
(c) Rs. 22,780,000
(d) Rs. 23,900,000
(e) Rs. 21,080,000

Q43. What is the difference between the total number of vehicles sold by Company A and the total number of vehicles sold by Company B and C combined?

(a) 101
(b) 123
(c) 147
(d) 169
(e) 119

Q44. There are three vessels P, Q and R, Vessel P and Q filled with mixture of milk and Water in the ratio of 5: 4 and 5: 3 respectively. 25% of mixture from vessel P taken out and mixed in vessel R, which contains 45 L pure milk. If in resulting mixture milk is 250% more than water in vessel R and initial quantity of mixture in vessel Q is 20 l less than that of mixture in vessel P, then find the quantity of milk in vessel Q?

(a) 100 L
(b) 110 L
(c) 150 L
(d) 180 L
(e) 103 L

YourMockTest.com — Free Study Material

Q45. The selling price of the Toy car is Rs.850. The ratio of the marked price to the cost price of the Toy car is 10 : 9 respectively and the ratio of the marked price to the cost price of toy bus is 11: 9 respectively. If the ratio of the cost price of the toy car to the toy bus is 2: 1 respectively and the discount offered for the toy car is 15%, then what is the marked price of the toy bus?

(a) 250
(b) 400
(c) 550
(d) 275
(e) 300

Q46. Two persons A and 'B' started the business with an initial investment of Rs. 2,000 and Rs. 3,000 respectively. 'A' invested Rs. 1,000 additionally after every 4 months and B invested Rs. 1,000 additionally after every 6 months. At the end of the year A and B separated their profit after the deduction of Rs. x from charity. If the total amount separated is Rs. 26000 and Total share given by A including charity amount is Rs. 15000. Find the value of x.

(a) Rs. 3200
(b) Rs. 3600
(c) Rs. 3000
(d) Rs. 2000
(e) Rs. 2400

Directions

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

The bar graph given below shows the number of male employees working in five different companies and the table shows the percentage of females out of total employees working in a company.

Total employees = Males + Females



Companies	% of Female Employees
A	40%
B	45%
C	55%
D	60%
E	50%

Q47. Average employees working in D and F together are 275, while female employees in both companies together is 270. Find male employees in C is how much percentage more or less than that on F.

(a) 75% More
(b) 67.5% Less

(c) 62.5% More
(d) 68.75% More
(e) None of these

Q48. Find the difference between male employees in A and B together and female employees in D and E together.
(a) 275
(b) 225
(c) 155
(d) 285
(e) 145

Q49. In A, 60% of total employees aged above 40 years, out of which half are females, find number of males aged ≤ 40 years.
(a) 140
(b) 40
(c) 180
(d) 120
(e) 60

Q50. If 30% of the male employees in Company C are promoted to senior positions, and 35% of the female employees in Company A are given additional responsibilities, and then 40% of the total employees (males and females combined) in Company E are given a performance bonus, what is the total number of employees in these three companies who did not receive any promotion, responsibility, or bonus?
(a) 1085
(b) 1079
(c) 1143
(d) 1205
(e) 994

Q51. If the number of male employees in Company A increases by 25%, the number of male employees in Company B decreases by 20%, and the number of male employees in Company C increases by 10%, what will be the new ratio of the total number of employees in Company A to Company B to Company C?
(a) 25:20:33
(b) 12:15:8
(c) 28:29:11
(d) 19:13:17
(e) 16:17:26

Q52. Investments of A, B and C are Rs. 4500, Rs. 5500 and Rs. 6000 respectively. Started a business after y months and (y + 3) months A and B withdrawn respectively and C continued till the end of the year. The profit share of A, B and C are 63: 110: 144. The total profit is Rs. 79250 and 20% were given to charity. Find the profit share of A is how many times the y.
(a) 2000
(b) 1800
(c) 1600
(d) 1400
(e) 1200

Q53. Person A invested Rs.1500 in scheme P at 11.25% per annum rate of simple interest for 4 years and invested Rs.1200 in scheme Q at 25% per annum rate of simple interest for 'X' years. The interest received from both schemes is equal. If he invests Rs. 2000 in another scheme R at 4X% per annum rate of simple interest for 2 years then, find interest earned by him in scheme R.
(a) 380 Rs.
(b) 330 Rs.
(c) 360 Rs.
(d) 350 Rs.

YourMockTest.com — Free Study Material

(e) 390 Rs.

Q54. The total time taken by the boat to cover 72 km upstream and 180 km downstream is 16 hours. The total time taken by the same boat to cover 108 km upstream and 126 km downstream is 16 hours. If the sum of the upstream speed and downstream speed of the boat is 30 kmph, then find the speed of the stream.

(a) 2 kmph
(b) 5 kmph
(c) 3 kmph
(d) 4 kmph
(e) 1.5 kmph

Q55. The ratio of the age of P five years ago to the age of Q five years hence is 2: 3. The ratio of the present age of Q to the present age of R is 11: 15. If the sum of the present age of P and R is 120, If the age of P y years after and the age of Q 5 years after are in the ratio 1: 1. Find the value of y.

(a) 20
(b) 18
(c) 15
(d) 12
(e) 10

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

9, 10, 22, 70, 280, 1405

(a) 9
(b) 10
(c) 70
(d) 22
(e) 280

Q57. Find the wrong number in the following series.

144, 2197, 196, 3375, 256, 4903

(a) 4903
(b) 3375
(c) 256
(d) 144
(e) None of these

Q58. In the following number series, a wrong number is given. Find out the wrong number.

49, 110, 174, 244, 323, 412, 520

(a) 520
(b) 110
(c) 174
(d) 412
(e) None of these

Q59. Income of A and B are x and y respectively. A spends 25% of the income and B spends 33.333% of the income and the savings of A and B are Rs. 9000 and Rs. 10000 respectively. If the income of A and B is increased by 50% and 40% respectively then the expenditure percentage remains the same. Find the difference between the new savings of A and B.

(a) Rs. 1500
(b) Rs. 750
(c) Rs. 1000
(d) Rs. 500
(e) Rs. 1250

YourMockTest.com – Free Study Material

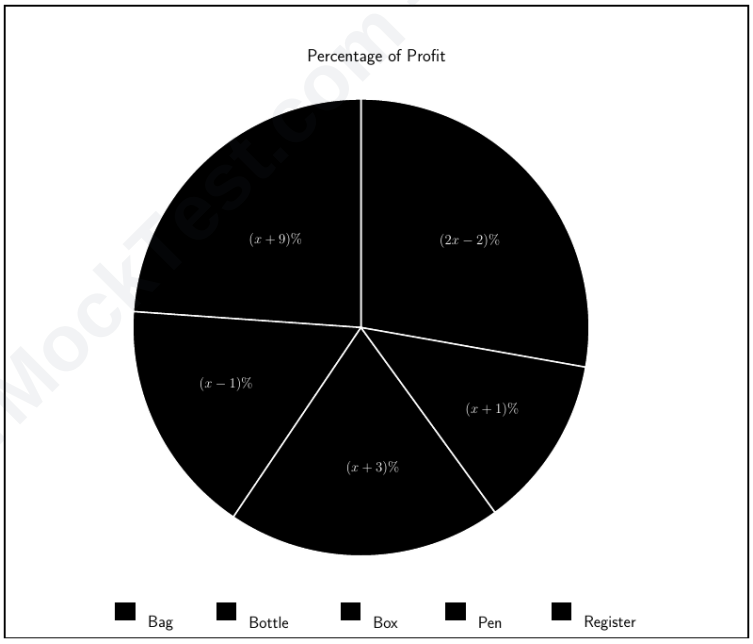
Q60. A can complete the work in 8 days and B can complete the same work in 12 days and C can complete the same work in 6 days. If B and C worked for x days and the remaining work completed by A in (x + 2) days. Find the how much percentage of work completed if A alone worked for (x + 4) days.

(a) 95%
(b) 90%
(c) 75%
(d) 100%
(e) 80%

Directions

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

The pie chart below shows the percentage of total profit earned by a shopkeeper earned from each item.



Note: The shopkeeper's total profit across all items is Rs. 25,000.

Q61. If the shopkeeper decides to reinvest 45% of the profit earned from bags and 60% of the profit earned from registers into purchasing new inventory, what is the total amount reinvested from these two items?

(a) Rs. 5,550
(b) Rs. 6,150
(c) Rs. 6,300
(d) Rs. 6,450
(e) Rs. 6,750

Q62. If the cost price of all registers was Rs. 19,000, and the shopkeeper had initially marked up the price by 40% before applying a discount to reach the final selling price, what was the approximate percentage discount applied to the marked price?

(a) 6%
(b) 7%
(c) 9%
(d) 10%
(e) 11%

Q63. If the shopkeeper introduces a new item, "Notebook," and the profit percentage for the notebook is (0.5x + 5)%, what percentage of the total profit does the notebook represent, and what is the new percentage of profit from the pen if the total percentage of profit is now distributed among 6 items?

(a) 12.5%, 12.25%
(b) 12.5%, 11.67%

(c) 13%, 12.16%
(d) 13%, 11.5%
(e) None of these

Q64. If the shopkeeper decided to donate 15% of the profit from pens and 20% of the profit from bottles to a local charity, and then used 30% of the remaining profit from pens to purchase a new display stand, how much profit from pens remains after these actions?

(a) Rs. 1,932.5
(b) Rs. 2,082.5
(c) Rs. 2,021.5
(d) Rs. 2,149.5
(e) Rs. 1,194.5

Q65. The shopkeeper decides to increase the selling price of Box by 20% and decrease the selling price of Pen by 10%. If the cost price of Box is Rs. 15,000 and the cost price of Pen is Rs. 20,000, what will be the new total profit earned by the shopkeeper after these changes?

(a) Rs. 24,630
(b) Rs. 27,380
(c) Rs. 26,550
(d) Rs. 25,460
(e) Rs. 28,505

Q66. It is also known that 20% of the bottles sold were found to be defective and had to be sold at a 15% loss compared to their original selling price. The total number of bottles sold is 500 and the cost price per bottle is Rs. 50. The shopkeeper originally sold all bottles at a 20% profit on the cost price.

Find the net profit earned from bottles after accounting for defective items.

(a) Rs. 4,020
(b) Rs. 3,100
(c) Rs. 3,080
(d) Rs. 3,250
(e) Rs. 3,310

Q67. The speed of car A is y kmph less than that of B. The time taken by car A to cover the 120 km distance is 1 hour more than the time taken by car B to cover the same distance. When car B increases his speed by 10 kmph, both the persons are 160 km apart and moving in opposite directions, then they meet after 2 hours. Find the speed of car A. (Note: Speed of car A and car B are less than 100 kmph)

(a) 36 kmph
(b) 40 kmph
(c) 30 kmph
(d) 25 kmph
(e) 45 kmph

Q68. In a class with a certain number of students if one new student weighing 30 kg is added, then the average weight of the class is increased by 2 kg. If 2 new student having an average weight of 27 kg is added, then the average weight of the class increases by 3kg over the original average. What is the original average weight (in kg) of the class?

(a) 15 kg
(b) 12 kg
(c) 14 kg
(d) 10 kg
(e) 8 kg

Q69. The total surface area of the cylinder is 960 cm^2. The height of the cylinder is x cm and its radius is (x - 4) cm. The height of the cylinder is equal to the breadth of the rectangle. If the curved surface area of the cylinder is 492 more than the perimeter of the rectangle. Find the area of the rectangle.(Use $\pi = 3$)

(a) 270 cm^2
(b) 360 cm^2

YourMockTest.com — Free Study Material

(c) 330 cm²
(d) 320 cm²
(e) None of these

Q70. There are three vessels 'Y' 'Z' and 'T' such that each contain a mixture of honey and water in the ratio of 7 : 3, 3 : 2 and 5 : 3 respectively. If (x + 20) ml, (x-30) ml and 2x ml mixture from 'Y', 'Z' and 'T' is mixed and the ratio of honey to water in the resultant mixture becomes 20 : 11 respectively then find the value of '2.5X'?

(a) 100
(b) 120
(c) 150
(d) 180
(e) 200

REASONING ABILITY

Directions

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

Six persons E, J, M, O, R and X born in same year but on three different months such that March, April and May on two different dates, i.e., either 9 or 26 and lives on different cities which are Jaipur, Lucknow, Kolkata, Mumbai, Patna and Delhi but not necessarily in same order. Only one person born between X and O. Person who lives in Mumbai born immediately after O. J lives in a city which start with the same alphabetical letter. More than three person born between E and the person who lives in Delhi. Only three person born between R and the person who lives in Patna. Person who lives in Kolkata born before M but not immediately before him. X born in a month which have odd number of days but not on even date of a month.

Q71. Who among them lives in Mumbai ?

(a) X
(b) R
(c) M
(d) J
(e) E

Q72. How many persons born between J and R ?

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

Q73. Who was born just before the person who born on 9th May ?

(a) M
(b) R
(c) J
(d) O
(e) X

Q74. Find the odd one out.

(a) X
(b) R
(c) J
(d) E
(e) O

YourMockTest.com — Free Study Material

Q75. Which of the following statement(s) is / are correct ?

(a) X born in May month.
(b) R born after M.
(c) O born on 9th April.
(d) J born in the same month with E.
(e) More than one option.

Directions

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

Eight persons O, P, Q, R, S, T, U and V are sitting around a circular table. Some of them are facing towards the centre (inward direction) while some are facing away from the centre (outward direction). No three consecutive person facing the same direction.

As many person sits between S and O as many person sits between S and Q, who sits third to the left of S. T and Q faces in same direction but faces opposite direction of P. The immediate neighbour of Q faces in opposite direction. R and P sits opposite to each other and faces in opposite direction. Only two person sits between U and V. The number of person facing away from centre is less than that of facing towards the centre. R sits second to the left of U. S and V sits immediate left to each other. R is not the neighbour of O.

Q76. Which of following sits adjacent to O ?

(a) PT
(b) QR
(c) SV
(d) PU
(e) UQ

Q77. How many person(s) sits between O and S when counted from clockwise direction of O ?

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

Q78. Find odd one out.

(a) S
(b) P
(c) O
(d) T
(e) Q

Q79. Who sits opposite to U ?

(a) T
(b) Q
(c) R
(d) S
(e) O

Q80. Who sits immediately left to S ?

(a) T
(b) V
(c) P
(d) R
(e) O

Directions

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

YourMockTest.com — Free Study Material

There are six persons A, K, M, R, T and Y lives in a family of three generations which have two couples. M is the brother - in - law of husband of A's daughter - in - law. Y is a male person. T is daughter - in - law of grandparent of K, who is the only niece of R's brother - in - law. There is no single parents of any child.

Q81. Which of the following statement is correct ?

(a) T is the son of A.
(b) R is the wife of Y.
(c) Y is the father of R.
(d) M is the brother of R.
(e) K is the daughter of A.

Q82. How M is related to R ?

(a) Sister - in - law
(b) Brother
(c) Father
(d) Uncle
(e) Brother - in - law

Q83. Who is the mother of K ?

(a) T
(b) A
(c) R
(d) M
(e) None of these

Directions

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

Seven boxes contain seven different fruits which are Apples, Bananas, Blueberries, Grapes, Kiwis, Oranges and Pomegranates which are placed one above other from bottom to top but not necessarily in same order. Top most box numbered 7 and bottom most box numbered 1.

The box which contains Blueberries placed three boxes above the box of Pomegranates, which is below the box of Bananas. Only one box placed between the boxes of Grapes and Apples. The box which contains Blueberries placed below the box of Grapes. The box which contains Oranges placed on even position below sixth number box. The box which contains Kiwis placed either on top or on bottom. Less than three boxes placed above the box of Apples.

Q84. Which box placed at top position ?

(a) Apples Box
(b) Pomegranates Box
(c) Bananas Box
(d) Oranges Box
(e) Grapes Box

Q85. How many boxes are placed between boxes of Oranges and Blueberries ?

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

Q86. Which box placed immediately above the box of Banana ?

(a) Blueberries Box
(b) Apples Box
(c) Kiwis Box
(d) Oranges Box
(e) Pomegranates Box

YourMockTest.com — Free Study Material

Q87. If Box of Kiwis change its position with box of Banana, then how many boxes are below the box of Kiwis ?

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

Q88. As many boxes above the box of Apple as many boxes below the box of _ ?

(a) Bananas
(b) Pomegranates
(c) Kiwis
(d) Oranges
(e) Grapes

Q89. How many pairs of letters are there in the word “TRANSMISSION” which have as many letters between them as in the English alphabetical series (both in forward and backward direction)?

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

Directions

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

Seven friends A, E, F, L, M, P and R lives on separate floors of a seven floor apartment and each person likes seven different colours which are Green, Pink, Red, Yellow, Blue, White and Violet but not necessarily in the same order. Ground floor is number one and so on till the topmost floor is numbered seven. R and P likes Red colour and Blue Colour but not necessarily in the same order.

The person who likes Pink colour lives on an odd number floor but neither on top nor on bottom. Only three person lives between R and F, who does not lives on top floor. P lives below A but not immediately below. The person who likes white colour lives immediately either above or below the floor of R. E lives three places below F. L likes Yellow colour. The person who like Red colour lives above the floor of the person who likes Pink colour. A doesn’t like Green colour. The number of persons lives above M is two more than that of lives below L. As many person lives above R as many persons lives below F. R and P likes Red colour and Blue colour but not in the same order.

Q90. Which of the following statement(s) is / are incorrect ?

(a) A likes Violet colour.
(b) M likes White colour.
(c) P lives above R.
(d) R does not lives on ground floor.
(e) E likes Green colour.

Q91. How many persons lives between A and M ?

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

Q92. Find the odd one out.

(a) M
(b) E
(c) L
(d) F
(e) A

YourMockTest.com — Free Study Material

Q93. Who likes White colour ?

(a) P
(b) A
(c) M
(d) F
(e) E

Q94. Who lives on topmost floor?

(a) L
(b) A
(c) P
(d) M
(e) None of these

Q95. Fourletter clusters have been given, out of which three are alike in some manner, while one is different. Choose the odd one.

(a) GCE
(b) PLN
(c) SJL
(d) JFH
(e) None of the Above

Directions

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

Eleven person B, G, I, K, N, R, S, T, V, X and Z lives in three different states which are Sikkim, Goa and Bihar but not necessarily in the same order. Not less than two and more than five person lives in a particular state. R and X lives in different cities but not in Goa. Either G or B lives in Goa or Sikkim. T lives with only one other person. Persons living in Bihar is one more than persons living in Goa. G doesn't lives with Z in the same city. V lives in the state having maximum number of persons live. I lives in Bihar. S lives in the state which have even number of persons live. B lives with V. Neither R nor N lives in Bihar.

Q96. Which of the following statement(s) is / are incorrect?

A) T lives in Goa.
B) S lives with R in the same city.
C) K and I lives in Goa.

(a) Only A
(b) Only B
(c) Both A and B
(d) All of these
(e) None of these

Q97. Which of the following statement(s) is / are correct ?

(a) Z and I lives in same city.
(b) V lives in Bihar.
(c) T does not lives with X.
(d) Bihar has maximum number of persons living.
(e) All of these

Q98. Find the odd one out.

(a) X
(b) V
(c) I
(d) S
(e) Z

YourMockTest.com — Free Study Material

Q99. Who lives with T in the same city ?

(a) R
(b) S
(c) K
(d) X
(e) Z

Q100. Which city has lowest density ?

(a) Goa
(b) Sikkim
(c) Bihar
(d) Both 1 and 2
(e) Both 2 and 3

ANSWER KEY

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

SOLUTIONS

Q1. Answer: (b) The man and his wife's fight

The correct answer is The man and his wife's fight.

Key Points

The use of an apostrophe is used to form possessive nouns.

• For example: Eminem's cap, Virat's bat, etc.

• When there are two nouns, as given in the question, always use the apostrophe at the last name only.

• Don't use the apostrophe at the first name.

• The use of "The" is necessary here. "The" is a definite article that is used before singular and plural nouns when the noun is specific or particular.

• Thus, the correct answer is: The man and his wife's fight disrupted the sleep of the people early in the morning.

Additional Information

The use of an apostrophe is incorrect when it is used with objects.

• For example: Table's leg (incorrect)

• However, an apostrophe is used with time, weight, distance, amount or personified nouns.

• For example:

A meter's length
A night's journey
Nature's laws

Week's holiday

Q2. Answer: (d) neither my brother nor my friends are

The correct answer is neither my brother nor my friends are.

Key Points

Neither...nor is correlative conjunction.

• Correlative conjunctions are always used in pairs.

• In the case of neither...nor, the verb must always agree with the subject which is closest.

• For example: Neither my friends nor I am coming to the party.

• Thus, the correct answer is: I am sorry to say this but neither my brother nor my friends are going to attend your wedding.

Additional Information

Some examples of other correlative conjunctions
Both...and
Either...or
Hardly...when
If...then
Not only...but also
Rather...than
Scarcely...when
Whether...or
No sooner...than

Q3. Answer: (b) was the better of the two brothers

The correct answer is was the better of the two brothers.

Key Points

When one is chosen out of two, we use a comparative degree.

• In phrases like the question, the comparative degree is preceded by "the" and followed by "of".

• For example: Cristiano is the better of the two players.

• Thus, the correct answer is: When the final results came out, it was obvious that Ramesh was the better of the two brothers.

Additional Information

When one is chosen out of more than two, we use a superlative degree.

• The superlative degree is preceded by "the" and followed by "of", just like the comparative degree.

• For example: Cristiano is the best of all the players.

Q4. Answer: (b) production

The solution is in Hindi. Read it online.

Q5. Answer: (e) develop

The solution is in Hindi. Read it online.

Q6. Answer: (a) tangible

The solution is in Hindi. Read it online.

Q7. Answer: (e) secure

The solution is in Hindi. Read it online.

Q8. Answer: (c) join

The solution is in Hindi. Read it online.

YourMockTest.com — Free Study Material

Q9. Answer: (a) nurture

The solution is in Hindi. Read it online.

Q10. Answer: (c) A-D and B-C

The solution is in Hindi. Read it online.

Q11. Answer: (b) B-C

The solution is in Hindi. Read it online.

Q12. Answer: (a) D-A

The solution is in Hindi. Read it online.

Q13. Answer: (d) B-A and D-C

The solution is in Hindi. Read it online.

Q14. Answer: (a) C

The correct answer is Option 1.

Key Points

• The paragraph begins by introducing the idea of visiting sites associated with death, disaster, and suffering becoming more popular, with Chernobyl being a prominent destination.

• Sentence C is the first sentence as it introduces the topic:

• "The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations."

• Sentence E follows as it describes what a visit to Chernobyl entails:

• "A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time."

• Sentence D is the third sentence because it provides more detail about what visitors see:

• "The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay."

• Sentence A is the fourth as it highlights the information provided to visitors:

• "Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination."

• The final sentence, B, emphasizes the importance of safety:

• "Safety remains a top priority for those visiting Chernobyl."

• The correct sequence is CEDAB.

Coherent paragraph after rearrangement:

"The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations. A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time. The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay. Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination. Safety remains a top priority for those visiting Chernobyl."

Q15. Answer: (e) E

The correct answer is Option 5.

Key Points

• The paragraph begins by introducing the idea of visiting sites associated with death, disaster, and suffering becoming more popular, with Chernobyl being a prominent destination.

• Sentence C is the first sentence as it introduces the topic:

• "The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations."

• Sentence E follows as it describes what a visit to Chernobyl entails:

• "A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time."

• Sentence D is the third sentence because it provides more detail about what visitors see:

• "The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay."

• Sentence A is the fourth as it highlights the information provided to visitors:

• "Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination."

YourMockTest.com — Free Study Material

• The final sentence, B, emphasizes the importance of safety:

• "Safety remains a top priority for those visiting Chernobyl."

• The correct sequence is CEDAB.

Coherent paragraph after rearrangement:

"The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations. A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time. The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay. Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination. Safety remains a top priority for those visiting Chernobyl."

Q16. Answer: (a) D

The correct answer is Option 1.

Key Points

• The paragraph begins by introducing the idea of visiting sites associated with death, disaster, and suffering becoming more popular, with Chernobyl being a prominent destination.

• Sentence C is the first sentence as it introduces the topic:

• "The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations."

• Sentence E follows as it describes what a visit to Chernobyl entails:

• "A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time."

• Sentence D is the third sentence because it provides more detail about what visitors see:

• "The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay."

• Sentence A is the fourth as it highlights the information provided to visitors:

• "Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination."

• The final sentence, B, emphasizes the importance of safety:

• "Safety remains a top priority for those visiting Chernobyl."

• The correct sequence is CEDAB.

Coherent paragraph after rearrangement:

"The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations. A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time. The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay. Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination. Safety remains a top priority for those visiting Chernobyl."

Q17. Answer: (d) A

The correct answer is Option 4.

Key Points

• The paragraph begins by introducing the idea of visiting sites associated with death, disaster, and suffering becoming more popular, with Chernobyl being a prominent destination.

• Sentence C is the first sentence as it introduces the topic:

• "The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations."

• Sentence E follows as it describes what a visit to Chernobyl entails:

• "A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time."

• Sentence D is the third sentence because it provides more detail about what visitors see:

• "The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay."

• Sentence A is the fourth as it highlights the information provided to visitors:

• "Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination."

• The final sentence, B, emphasizes the importance of safety:

• "Safety remains a top priority for those visiting Chernobyl."

• The correct sequence is CEDAB.

Coherent paragraph after rearrangement:

"The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations. A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time. The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay. Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination. Safety remains a top priority for those visiting Chernobyl."

Q18. Answer: (b) B

The correct answer is Option 2.

Key Points

• The paragraph begins by introducing the idea of visiting sites associated with death, disaster, and suffering becoming more popular, with Chernobyl being a prominent destination.

• Sentence C is the first sentence as it introduces the topic:

• "The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations."

• Sentence E follows as it describes what a visit to Chernobyl entails:

• "A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time."

• Sentence D is the third sentence because it provides more detail about what visitors see:

• "The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay."

• Sentence A is the fourth as it highlights the information provided to visitors:

• "Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination."

• The final sentence, B, emphasizes the importance of safety:

• "Safety remains a top priority for those visiting Chernobyl."

• The correct sequence is CEDAB.

Coherent paragraph after rearrangement:

"The practice of visiting sites associated with death, disaster, and suffering has seen a rise in popularity over the years, with Chernobyl being one of the most prominent destinations. A visit to Chernobyl provides an eerie yet fascinating look into a place frozen in time. The nearby town of Pripyat, once home to nearly 50,000 people, stands as a ghost town, its buildings abandoned and left to decay. Visitors are often briefed on the heroic efforts of the “liquidators,” the brave men and women who worked tirelessly to contain the radioactive contamination. Safety remains a top priority for those visiting Chernobyl."

Q19. Answer: (a) Curated gift boxes

The correct answer is Option 1.

Key Points

• The passage mentions that the curated gift boxes have been met with considerable success.

• These boxes combine toys, accessories, and apparel, making them a preferred choice for parents.

• The analysis suggests that this segment holds considerable potential for future growth, particularly with the increasing trend of personalized gifting.

Therefore, the correct answer is Option 1.

Additional Information

• Children’s earrings: Although they have seen significant growth, the passage specifically highlights the curated gift boxes as having greater future potential.

• Themed clothing: This segment is popular but not specifically mentioned as holding the most future growth potential.

• Toys: Originally the company's main product, but the focus has shifted to more diversified products, including curated gift boxes.

• Seasonal items: The passage mentions sales increase during festive seasons, but it does not focus on them for future growth.

Q20. Answer: (b) Only B

The correct answer is Option 2.

Key Points

• Statement A: The company has always focused on apparel and jewellery.

• This statement is incorrect as the passage mentions that the company was originally recognized as a toymaker and has only recently diversified into apparel and jewellery.

• Statement B: Children's earrings and other jewellery have become a significant part of the company’s revenue.

• This statement is correct as the passage states that the sales of children's earrings and other jewellery have seen a significant swell, contributing substantially to the company's revenue.

• Statement C: The themed clothing line has not been successful for Company X.

• This statement is incorrect as the passage mentions that the company's line of themed clothing for children has proven particularly popular.

Therefore, the correct answer is: Only B.

Q21. Answer: (a) Only A

The correct answer is Option 1.

Key Points

• Statement A: Company X's sales have been stable throughout the year.

• This statement is incorrect since the passage mentions that sales have seen a consistent increase, especially during festive seasons and school holidays, implying that sales are not stable throughout the year.

• Statement B: Company X has achieved brand recognition among its target audience.

• This statement is correct as the passage mentions the company has strong brand recognition among its target audience.

• Statement C: The company needs to improve its distribution capabilities.

• This statement is correct as the passage indicates the company's current warehouse and logistical capacities are nearing their limits.

Therefore, the correct answer is: Only A.

Q22. Answer: (d) B and C

The correct answer is Option 4.

Key Points

• Statement A: Company X's warehouse and logistics capacities are currently more than sufficient.

• This statement is incorrect as the passage states that the current warehouse and logistical capacities are nearing their limits.

• Statement B: The company has made significant strides during festive seasons and school holidays.

• This statement is correct as the analysis indicates a consistent increase in sales, especially during festive seasons and school holidays.

• Statement C: The themed clothing line has proven popular with children.

• This statement is correct as it is mentioned that the company's line of themed clothing for children is particularly popular.

Therefore, the correct answer is: B and C.

Q23. Answer: (a) Only A

The correct answer is Option 1.

Key Points

• Statement A: Company X has expanded into new international markets.

• This statement is incorrect as the passage indicates that Company X plans to explore new international markets but has not confirmed expansion into them yet.

• Statement B: The curated gift boxes are preferred by parents for their convenience.

• This statement is correct as mentioned in the passage, the gift boxes have become a preferred choice for parents due to their convenience.

• Statement C: Company X originally focused on making toys.

• This statement is correct as the passage refers to Company X being originally recognized as a toymaker.

Therefore, the correct answer is: Only A.

Q24. Answer: (b) The company’s focus on a single product line would likely result in revenue fluctuations.

The correct answer is 'Option 2'.

Key Points

• A) Company X's success is solely attributed to its toy line.

• This cannot be inferred from the passage. The passage indicates that Company X has diversified its product lines beyond toys, contributing to overall success.

• B) The company’s focus on a single product line would likely result in revenue fluctuations.

• This can be inferred from the passage. The passage mentions that diversification into other products has provided a stable revenue stream, mitigating seasonal fluctuations often seen in the toy industry.

• C) There is no significant competition in the children’s jewellery sector.

• This cannot be inferred from the passage. The passage mentions that the company faces stiff competition in the jewellery sector.

• D) Themed clothing did not contribute to revenue growth.

• This cannot be inferred from the passage. The passage states that themed clothing for children has proven particularly popular and contributed to revenue growth.

• E) All future growth will come from the international market.

• This cannot be inferred from the passage. While the passage mentions exploring new international markets, it also discusses expanding the online presence and optimizing supply chains as other growth strategies.

Therefore, the correct answer is Option 2.

Additional Information

• Only A: Incorrect because A cannot be inferred from the passage.

• Only B: Correct because B can be inferred from the passage.

• All A, B, and C: Incorrect because A and C cannot be inferred from the passage.

• Only C: Incorrect because C cannot be inferred from the passage.

Q25. Answer: (c) adapt and diversify

The solution is in Hindi. Read it online.

Q26. Answer: (b) surge

The solution is in Hindi. Read it online.

Q27. Answer: (a) capacity

The correct answer is Option 1.

Key Points

• In the passage, the phrase "expand its distribution space" refers to increasing the company's warehousing and logistical capacity to meet growing demand.

• Here, "space" denotes capacity or room for expansion, particularly in terms of storage and distribution infrastructure.

• "Expansion" is the closest in meaning because it reflects the idea of increasing available capacity to support future growth.

• Thus, Option 1 best matches the contextual meaning of "space" in the passage.

Therefore, the correct answer is Expansion.

Additional Information

• Option 2: "Deficiency" – Means a lack or shortage, which does not convey the idea of storage or distribution capacity.

• Option 3: "Concession" – Means a compromise or something granted, which is unrelated to the context.

• Option 4: "Limitation" – Means a restriction or constraint. Although limited space is mentioned, this is not the meaning of the word "space" itself.

• Option 5: "Interval" – Means a period of time or a gap between events, which is unrelated to the context of warehousing and logistics.

Q28. Answer: (e) company

The solution is in Hindi. Read it online.

Q29. Answer: (d) DABEC

The correct answer is DABEC.

Key Points Let's consider A, B, C, D, and E to be five blanks, with A being the first B second, and so on.

• The first blank requires a noun and that too a 'living noun' that can speak. Therefore, 'agent' is the correct answer here.

• The second blank requires a noun which is the way of transportation. Therefore, 'bus' is the correct answer here.

• The third blank requires a noun and an adjective will be grammatically incorrect here. so, 'way' is the correct answer here.

• The fourth blank requires a verb as in describing the action. Therefore 'went' is the correct answer.

• The fifth blank requires an adjective describing 'characteristic of the way of transport'. Therefore, 'faster' is the correct answer and seems to be grammatically correct.

Therefore, the correct answer is,

The travel agent said that traveling by bus was the cheapest way, but we went by plane because it was faster

Q30. Answer: (c) EDACB

The correct answer is EDACB.

Key Points

Let's consider A, B, C, D, and E to be five blanks, with A being the first B second, and so on.

• The first blank requires a verb as a house is an inanimate object and 'I am house ' is incorrect. Therefore, 'having' is the correct answer here.

• The second blank requires a noun as in ' big what?'- party. Therefore, 'party' is the correct answer here.

• The third blank requires a noun that will denote a place of the party. so, 'house' is the correct answer here.

• The fourth blank requires a verb as in describing the action. Therefore 'inviting' is the correct answer.

• The fifth blank requires a noun for which the adjective 'close' is used. Therefore, 'friends' is the correct answer and seems to be grammatically correct.

Therefore, the correct answer is,

I am having a big party next week at my house and I am inviting all my close friends

Q31. Answer: (a) CDBEA

The correct answer is CDBEA.

Key Points

Let's consider A, B, C, D, and E to be five blanks, with A being the first B second, and so on.

• The first blank requires a noun that too a name of a bird which is mentioned later in the sentence. Therefore, 'woodpecker is the correct answer here

• The second blank requires an adjective which is modifying the noun 'bird'. Therefore, 'small' is the correct answer here.

• The third blank requires a noun that is used for 'feathers' later in the sentence. Therefore, 'bunch' is the correct answer here.

• The fourth blank requires an adjective which is showing the characteristics of the 'feathers'. Therefore 'red' is the correct answer.

• The fifth blank requires a noun to show the place where the bird has feathers. Therefore, 'head' is the correct answer

Therefore, the correct answer is,

A woodpecker is a small bird with a bunch of red feathers on its head.

Q32. Answer: (c) DCAEB

The correct answer is DCAEB.

Key Points

Let's consider A, B, C, D, and E to be five blanks, with A being the first B second, and so on.

• The first blank and the second blank requires two nouns that have specific meanings and are one of a kind because the preposition 'the' is used before them. Therefore in the first blank 'God' and in the second blank 'earth' is the correct answer.

• The third blank requires a verb, which describes the action taking place on the noun 'plants'. Therefore, 'grew' is the correct answer here.

• The fourth blank requires an adjective that describes the noun earth further. Therefore 'populated' is the correct answer.

• The fifth blank requires a preposition and 'with' seems to be grammatically correct here. Therefore, 'with' is the correct answer

Therefore, the correct answer is,

God created the earth from the lower part, grew plants on it, and populated it with animals.

Q33. Answer: (a) Exhort

The correct answer is 'Exhort.'

Key Points

• Exhort means to strongly encourage or urge someone to do something.

• In the first sentence, filling the blank with 'exhort' would imply doctors strongly encourage their patients for regular checkups.

• In the second sentence, filling the blank with 'exhort' would imply that the purpose of commercials is to encourage customers to buy products.

• Therefore, the most appropriate word to be filled in the blank is 'exhort'.

Hence, the correct answer is option 1.

Complete Sentences:

1. Most doctors will exhort their patients to obtain regular check-ups so that they can avoid serious illnesses.

2. The purpose of most commercials is to exhort consumers to buy a particular product or service.

Additional Information

• Let us explore the other options:

• Discourage means to stop somebody from doing something.

• Restrain means to keep someone or something under control or within limits.

• Inhibit means to prevent or prohibit someone from doing something.

• Curb means to limit or control something.

Q34. Answer: (c) Inane

The correct answer is 'Inane.'

Key Points

• Inane means lacking sense, silly.

• In the first sentence, filling the blank with 'inane' would imply that eating plastic fruit is silly or foolish.

• In the second sentence, filling the blank with 'inane' would imply ignoring silly people or their comments.

• Therefore, the most appropriate word to be filled in the blank is 'inane'.

Hence, the correct answer is option 3.

Complete Sentences:

1. Her idea about eating plastic fruit is totally inane.

2. My teacher is really good about ignoring inane comments from the clowns in our class.

Additional Information

• Let us explore the other options:

• Sensible means (used about people and their behaviour) able to make good judgements based on reason and experience.

• Appreciable means large or important enough to be noticed.

• Audible means able to be heard.

• Visible means able to be seen.

Q35. Answer: (b) Rogue

The correct answer is 'Rogue.'

Key Points

• Rogue means a dishonest or unprincipled individual.

• In the first sentence, filling the blank with 'rogue' would imply the dishonesty of a man who mislead or cheated an old lady.

• In the second sentence, filling the blank with 'rogue' would imply the dishonesty of a narcotics officer.

• Therefore, the most appropriate word to be filled in the blank is 'rogue'.

Hence, the correct answer is option 2.

Complete Sentences:

1. The devilish rogue laughed after he conned the widow out of her savings.

2. The district attorney filed charges against the rogue narcotics officer for collusion with the drug traffickers.

Additional Information

• Let us explore the other options:

• Decent means honest and fair; treating people with respect.

• Ethical means morally good or correct.

• Scrupulous means careful to do what is right or honest.

• Honest means not lying to people or stealing.

Q36. Answer: (c) There is less people attending the lecture than expected.

The correct answer is option 3.

Key Points

To answer this question, let's break down each sentence to identify the grammatically and contextually correct ones:

• 1) The data shows a significant increase in customer satisfaction.

• This sentence describes the data indicating an increase in customer satisfaction.

• This sentence is grammatically and contextually correct.

• 2) The company's new policy affects all employees immediately.

• This sentence explains the impact of a company's new policy.

• This sentence is grammatically and contextually correct.

• 3) There is less people attending the lecture than expected.

• This sentence discusses the attendance at a lecture.

• The sentence is erroneous because "less" should be "fewer" when referring to countable nouns like "people."

• The correct sentence would be: "There are fewer people attending the lecture than expected."

• 4) She runs more quickly than anyone else on the team.

YourMockTest.com — Free Study Material

• This sentence compares someone's running speed to others on the team.
• This sentence is grammatically and contextually correct.
• So, out of the given sentences, only sentence 3 is erroneous.
• Therefore, the correct answer is "option 3."

Q37. Answer: (b) The information you provided are very helpful for our research.

The correct answer is option 2.
Key Points
To answer this question, let's break down each sentence to identify the grammatically and contextually correct ones:
• 1. The committee members meet every Wednesday to discuss new proposals.
• This sentence describes the regular meetings of the committee members.
• This sentence is grammatically and contextually correct.
• 2. The information you provided are very helpful for our research.
• This sentence describes the usefulness of the information provided.
• The sentence is erroneous because "information" is an uncountable noun and should be followed by "is" instead of "are".
• The correct sentence would be: "The information you provided is very helpful for our research."
• 3. He has a natural talent for drawing and painting.
• This sentence describes someone's natural talent.
• This sentence is grammatically and contextually correct.
• 4. The weather tomorrow is expected to be sunny with a chance of rain in the afternoon.
• This sentence describes a weather forecast.
• This sentence is grammatically and contextually correct.
• 5. All are correct.
So, out of the given sentences, only sentence 2 is erroneous.
Therefore, the correct answer is "option 2."

Q38. Answer: (b) The student were excited about the upcoming holidays.

The correct answer is option 2.
Key Points
To answer this question, let's break down each sentence to identify the grammatically and contextually correct ones:
• 1) Her singing is absolutely beautiful.
• This sentence describes the quality of someone's singing.
• This sentence is grammatically and contextually correct.
• 2) The student were excited about the upcoming holidays.
• This sentence describes students' excitement about holidays.
• This sentence is erroneous because "student" should be plural ("students") to agree with the verb "were."
• The correct sentence would be: "The students were excited about the upcoming holidays."
• 3) The book on the table belongs to John.
• This sentence indicates possession of a book.
• This sentence is grammatically and contextually correct.
• 4) They have decided to sell their house and move abroad.
• This sentence describes a decision to sell a house and relocate.
• This sentence is grammatically and contextually correct.
So, out of the given sentences, option 2 is grammatically incorrect.

Q39. Answer: (b) John and Sarah is going to the concert together.

The correct answer is option 2.
Key Points
To answer this question, let's break down each sentence to identify the grammatically and contextually correct ones:
• 1) The experiment yielded unexpected results, which were analyzed further.
• This sentence describes the outcome of an experiment and subsequent actions.
• This sentence is grammatically and contextually correct.
• 2) John and Sarah is going to the concert together.

• This sentence describes two people going to a concert.
• The sentence is erroneous because the subject "John and Sarah" is plural and should be followed by "are" instead of "is."
• The correct sentence would be: "John and Sarah are going to the concert together."
• 3) The shop offers a variety of organic products.
• This sentence describes a shop's offerings.
• This sentence is grammatically and contextually correct.
• 4) She always finishes her work before the deadline.
• This sentence describes someone's punctuality with work.
• This sentence is grammatically and contextually correct.
• So, out of the given sentences, only sentence 2 is erroneous.
• Therefore, the correct answer is "option 2."

Q40. Answer: (b) She enjoys hiking, swimming, and to ride horses.

The correct answer is option 2.

Key Points

To answer this question, let's break down each sentence to identify the grammatically and contextually correct ones:

• 1) He quickly realized that he had made a mistake.
• This sentence describes a person's realization of their error.
• This sentence is grammatically and contextually correct.
• 2) She enjoys hiking, swimming, and to ride horses.
• This sentence lists activities that someone enjoys.
• The sentence is erroneous because the structure of the list is inconsistent. "To ride horses" should be changed to "riding horses" to match "hiking" and "swimming."
• The correct sentence would be: "She enjoys hiking, swimming, and riding horses."
• 3) The presentation was well-received by the audience.
• This sentence describes the positive reception of a presentation.
• This sentence is grammatically and contextually correct.
• 4) Their teamwork and cooperation led to success.
• This sentence discusses the outcome of teamwork and cooperation.
• This sentence is grammatically and contextually correct.
• 5) All are correct.
• This option implies that all the given sentences are correct.
• This option is incorrect because sentence 2 contains an error.

Q41. Answer: (c) 32%

General Solution:

Let:

AC : Number of Cars sold by Company A

AB : Number of Buses sold by Company A

BC : Number of Cars sold by Company B

BB : Number of Buses sold by Company B

CC : Number of Cars sold by Company C

CB : Number of Buses sold by Company C

1. The number of Buses sold by Company C is 20 less than that of Company A:

CB = AB - 20

2. The total number of Buses sold by all three companies is 245:

AB + BB + CB = 245

3. The total number of Buses and Cars sold by Company A is 275:

AC + AB = 275

4. The number of Cars sold by Company C is equal to the number of Cars sold by Company B, which is 120:

CC = BC = 120

5. The ratio of the number of Cars sold by Company A and C is 23:15:

AC / CC = 23 / 15
Since CC = 120:
AC / 120 = 23 / 15
AC = (23 / 15) × 120 = 184
1. From Equation 3:
AC + AB = 275
184 + AB = 275
AB = 91
2. From Equation 1:
CB = AB - 20 = 91 - 20 = 71
3. From Equation 2:
AB + BB + CB = 245
91 + BB + 71 = 245
BB = 245 - 162 = 83
Thus,

Company	Cars Sold	Buses Sold	Total Vehicles Sold
A	184	91	275
B	120	83	203
C	120	71	191

Calculations:
C_C : Fuel efficiency of Company C's Cars in km/l or any unit.
B_C : Fuel efficiency of Company B's Cars.
A_C : Fuel efficiency of Company A's Cars.
Company B's Cars have a 10% higher fuel efficiency than Company C's Cars:
BC = CC + 0.10 × CC = 1.10 × CC
2. Company A's Cars have a 20% higher fuel efficiency than Company B's Cars:
AC = BC + 0.20 × BC = 1.20 × BC
We know BC = 1.10 × CC. Substitute this into the equation for AC:
AC = 1.20 × BC = 1.20 × 1.10 × CC = 1.32 × CC
So, the fuel efficiency of Company A's Cars is 1.32 × the fuel efficiency of Company C's Cars.
The percentage difference between Company A's Cars and Company C's Cars is:
Percentage Difference = (1.32 - 1) × 100 = 0.32 × 100 = 32%
Thus, the approximate percentage difference in fuel efficiency between Company A's Cars and Company C's Cars is 32%.

Q42. Answer: (e) Rs. 21,080,000

General Solution:
Let:
AC : Number of Cars sold by Company A
AB : Number of Buses sold by Company A
BC : Number of Cars sold by Company B
BB : Number of Buses sold by Company B
CC : Number of Cars sold by Company C
CB : Number of Buses sold by Company C
1. The number of Buses sold by Company C is 20 less than that of Company A:
CB = AB - 20
2. The total number of Buses sold by all three companies is 245:
AB + BB + CB = 245
3. The total number of Buses and Cars sold by Company A is 275:
AC + AB = 275
4. The number of Cars sold by Company C is equal to the number of Cars sold by Company B, which is 120:

YourMockTest.com — Free Study Material

CC = BC = 120

5. The ratio of the number of Cars sold by Company A and C is 23:15:

AC / CC = 23 / 15

Since CC = 120:

AC / 120 = 23 / 15

AC = (23 / 15) × 120 = 184

1. From Equation 3:

AC + AB = 275

184 + AB = 275

AB = 91

2. From Equation 1:

CB = AB - 20 = 91 - 20 = 71

3. From Equation 2:

AB + BB + CB = 245

91 + BB + 71 = 245

BB = 245 - 162 = 83

Thus,

Company	Cars Sold	Buses Sold	Total Vehicles Sold
A	184	91	275
B	120	83	203
C	120	71	191

Calculations:

Original price of a Car: Rs. 500,000

Original price of a Bus: Rs. 800,000

Increase in price of a Car by 15%:

New price of a Car = 500,000 + 0.15 × 500,000 = 500,000 + 75,000 = 575,000

Increase in price of a Bus by 10%:

New price of a Bus = 800,000 + 0.10 × 800,000 = 800,000 + 80,000 = 880,000

Original revenue from Cars = 184 × 500,000 = 92,000,000

Original revenue from Buses = 91 × 800,000 = 72,800,000

Total original revenue:

92,000,000 + 72,800,000 = 164,800,000

New revenue from Cars = 184 × 575,000 = 105,800,000

New revenue from Buses = 91 × 880,000 = 80,080,000

Total new revenue:

105,800,000 + 80,080,000 = 185,880,000

Total increase in revenue = New revenue - Original revenue

Total increase in revenue = 185,880,000 - 164,800,000 = 21,080,000

Thus, the total increase in revenue for Company A is Rs. 21,080,000.

Q43. Answer: (e) 119

General Solution:

Let:

A_C : Number of Cars sold by Company A

A_B : Number of Buses sold by Company A

B_C : Number of Cars sold by Company B

B_B : Number of Buses sold by Company B

C_C : Number of Cars sold by Company C

C_B : Number of Buses sold by Company C

1. The number of Buses sold by Company C is 20 less than that of Company A:

YourMockTest.com — Free Study Material

C_B = A_B - 20
2. The total number of Buses sold by all three companies is 245:
A_B + B_B + C_B = 245
3. The total number of Buses and Cars sold by Company A is 275:
A_C + A_B = 275
4. The number of Cars sold by Company C is equal to the number of Cars sold by Company B, which is 120:
C_C = B_C = 120
5. The ratio of the number of Cars sold by Company A and C is 23:15:
A_C/ C_C = 23 / 15
Since C_C = 120:
A_C / 120 = 23 / 15
A_C = (23 / 15) × 120 = 184
1. From Equation 3:
A_C + A_B = 275
184 + A_B = 275
A_B = 91
2. From Equation 1:
C_B = A_B - 20 = 91 - 20 = 71
3. From Equation 2:
A_B + B_B + C_B = 245
91 + B_B + 71 = 245
B_B = 245 - 162 = 83
Thus,

Company	Cars Sold	Buses Sold	Total Vehicles Sold
A	184	91	275
B	120	83	203
C	120	71	191

Calculations:
Total vehicles sold by Company A = 275
Total vehicles sold by Company B = 203
Total vehicles sold by Company C = 191
Total vehicles sold by B and C combined = 203 + 191 = 394
Difference = 394 − 275 = 119.
Thus, the correct answer is 119.

Q44. Answer: (a) 100 L

Shortcut Trick
In vessel R, milk is 250% more than water → Milk : Water = 350 : 100 = 7 : 2.
Let 25% of P be 9x → Milk = 5x, Water = 4x. In R: (45 + 5x) / 4x = 7 / 2.
=> 90 + 10x = 28x → 18x = 90 → x = 5.
25% of P = 9 × 5 = 45 L → Total P = 180 L. Q = 180 − 20 = 160 L.
Milk in Q = (5/8) × 160 = 100 L.
Therefore The correct answer is 100 L.
Alternate Method
Given: Ratio in P = 5:4, Ratio in Q = 5:3, Milk in R = 45 L, Milk = 3.5 × Water in R.
Step 1: Calculate quantities from P to R
=> Let 25% of mixture P = 9x. Milk = 5x, Water = 4x.
=> In vessel R, Total Milk = 45 + 5x, Total Water = 4x.
=> Given: Milk = Water + 250% of Water => Milk = 3.5 × Water.
=> 45 + 5x = 3.5 × 4x => 45 + 5x = 14x.

=> 9x = 45 => x = 5.

Step 2: Find total quantity of P and Q

=> 25% of P = 9 × 5 = 45 L => Total P = 45 × 4 = 180 L.

=> Total Q = Total P − 20 = 180 − 20 = 160 L.

Step 3: Find Milk in Q

=> Ratio of Milk : Water in Q = 5 : 3 (Total parts = 8).

=> Milk in Q = (5 / 8) × 160 = 100 L.

Therefore The correct answer is 100 L.

Additional Information

Mixture Ratio Preservation

When any quantity of a mixture is taken out, the ratio of ingredients in the removed part and the remaining part stays the same as the initial ratio.

Percentage to Ratio Conversion

A value 250% more than x is x + 2.5x = 3.5x. In ratio form, 3.5 : 1 is same as 7 : 2.

Alligation Application

Used to find the mean proportion or the ratio in which two mixtures are mixed. Rule: (Quantity 1 / Quantity 2) = (C2 − M) / (M − C1).

Q45. Answer: (c) 550

Shortcut Trick

Ratio of Marked Price (MP) to Selling Price (SP) for Toy Car based on 15% discount is 100 : 85 or 20 : 17.

Given SP of Toy Car = 850, so 17 units = 850 => 1 unit = 50.

MP of Toy Car = 20 × 50 = 1000.

From MP:CP ratio (10:9), CP of Toy Car = 900.

Using CP Car : CP Bus (2:1), CP of Toy Bus = 900 ÷ 2 = 450.

Using MP:CP ratio for Bus (11:9), 9 units = 450 => 11 units = 550.

Therefore The correct answer is 550.

Alternate Method

Given: SP_(Car) = 850, MP_(Car):CP_(Car) = 10:9, MP_(Bus):CP_(Bus) = 11:9, CP_(Car):CP_(Bus) = 2:1, Discount_(Car) = 15%.

Formulas: SP = MP × (100 − Discount%) ÷ 100 | MP = (SP × 100) ÷ (100 − Discount%).

=> MP of Toy Car = (850 × 100) ÷ (100 − 15) = 85000 ÷ 85 = 1000.

=> Since MP_(Car) : CP_(Car) = 10 : 9, then 10 units = 1000 => CP of Toy Car = 900.

=> Given CP_(Car) : CP_(Bus) = 2 : 1, then 2 units = 900 => CP of Toy Bus = 450.

=> Given MP_(Bus) : CP_(Bus) = 11 : 9, then 9 units = 450 => 1 unit = 50.

=> MP of Toy Bus = 11 × 50 = 550.

Therefore The correct answer is 550.

Additional Information

Marked Price and Discount

Discount is always calculated on the Marked Price (MP). SP = MP − Discount.

Ratio and Proportion in CP/SP

When common terms (like CP) are shared between two ratios, they must be scaled to a common value to compare different articles.

Q46. Answer: (c) Rs. 3000

Shortcut Trick

Ratio of Profit = Ratio of (Investment × Time).

Equivalent capital for 1 month for A = (2000 × 4) + (3000 × 4) + (4000 × 4) = 8000 + 12000 + 16000 = 36000.

Equivalent capital for 1 month for B = (3000 × 6) + (4000 × 6) = 18000 + 24000 = 42000.

Profit ratio A : B = 36000 : 42000 = 6 : 7.

Total separated amount = 26000 => A share + B share = 26000.

Total share of A including charity = A share + x = 15000. Since A share = (6/13) × 26000 = 12000, then x = 15000 − 12000 = 3000.

Therefore The correct answer is Rs. 3000.

Alternate Method

Formulas: Profit Ratio = (Capital1 × Time1) : (Capital2 × Time2) | Total Profit = Amount Separated + Charity (x).

=> Total investment of A = (2000 × 4) + (2000+1000) × 4 + (3000+1000) × 4 = 8000 + 12000 + 16000 = Rs. 36,000.

=> Total investment of B = (3000 × 6) + (3000+1000) × 6 = 18000 + 24000 = Rs. 42,000.

=> Ratio of profits A : B = 36000 : 42000 = 6 : 7.

=> Total amount separated = Rs. 26,000.

=> Profit share of A = (6 / (6 + 7)) × 26000 = (6 / 13) × 26000 = Rs. 12,000.

=> Given: Share given by A including charity (x) = Rs. 15,000.

=> x = 15000 − 12000 = Rs. 3,000.

Therefore The correct answer is Rs. 3000.

Additional Information

Partnership Rules

In a partnership, profit is distributed based on the product of Capital and Time. If investments change periodically, calculate the weighted sum.

Charity Deduction

If an amount x is deducted for charity from the total profit, the remaining profit is distributed among partners in their investment ratio.

Q47. Answer: (d) 68.75% More

General Solution:

The total employees in a company = Males + Females.

From the given data, we can calculate the total employees for each company using the percentage of female employees.

Formula: Total Employees = Males / (1 - Percentage of Females)

Company A:

Males = 240

Percentage of Females = 40%

Total Employees = 240 / (1 - 0.40) = 240 / 0.60 = 400

Females = 400 - 240 = 160

Company B:

Males = 275

Percentage of Females = 45%

Total Employees = 275 / (1 - 0.45) = 275 / 0.55 = 500

Females = 500 - 275 = 225

Company C:

Males = 270

Percentage of Females = 55%

Total Employees =270 / (1 - 0.55) = 270 / 0.45 = 600

Females = 600 - 270 = 330

Company D:

Males = 120

Percentage of Females = 60%

Total Employees =120 / (1 - 0.60) = 120 / 0.40 = 300

Females = 300 - 120 = 180

Company E:

Males = 180

Percentage of Females = 50%

Total Employees =180 / (1 - 0.50) = 180 / 0.50 = 360

Females = 360 - 180 = 180

Calculations:

Average employees in D and F = 275

Total employees in D and F = 275 × 2 = 550

From Step 1, total employees in D = 300
So, total employees in F = 550 - 300 = 250
Total female employees in D and F = 270
From Step 1, female employees in D = 180
So, female employees in F = 270 - 180 = 90
Total employees in F = 250
Female employees in F = 90
Male employees in F = 250 - 90 = 160
Male employees in C = 270
Male employees in F = 160
Difference = 270 -160 = 110
Percentage difference = 110 / 160 × 100 = 68.75%
Thus, the Male employees in C are 68.75% more than male employees in F.

Q48. Answer: (c) 155

General Solution:
The total employees in a company = Males + Females.
From the given data, we can calculate the total employees for each company using the percentage of female employees.
Formula: Total Employees = Males / (1 - Percentage of Females)
Company A:
Males = 240
Percentage of Females = 40%
Total Employees = 240 / (1 - 0.40) = 240 / 0.60 = 400
Females = 400 - 240 = 160
Company B:
Males = 275
Percentage of Females = 45%
Total Employees = 275 / (1 - 0.45) = 275 / 0.55 = 500
Females = 500 - 275 = 225
Company C:
Males = 270
Percentage of Females = 55%
Total Employees =270 / (1 - 0.55) = 270 / 0.45 = 600
Females = 600 - 270 = 330
Company D:
Males = 120
Percentage of Females = 60%
Total Employees =120 / (1 - 0.60) = 120 / 0.40 = 300
Females = 300 - 120 = 180
Company E:
Males = 180
Percentage of Females = 50%
Total Employees =180 / (1 - 0.50) = 180 / 0.50 = 360
Females = 360 - 180 = 180
Calculations:
Male Employees in A and B Together:
240 (A) + 275 (B) = 515
Female Employees in D and E Together:
180 (D) + 180 (E) = 360
Difference:
515 - 360 = 155
Thus, the difference is 155.

Q49. Answer: (d) 120

General Solution:

The total employees in a company = Males + Females.

From the given data, we can calculate the total employees for each company using the percentage of female employees.

Formula: Total Employees = Males / (1 - Percentage of Females)

Company A:

Males = 240

Percentage of Females = 40%

Total Employees = 240 / (1 - 0.40) = 240 / 0.60 = 400

Females = 400 - 240 = 160

Company B:

Males = 275

Percentage of Females = 45%

Total Employees = 275 / (1 - 0.45) = 275 / 0.55 = 500

Females = 500 - 275 = 225

Company C:

Males = 270

Percentage of Females = 55%

Total Employees =270 / (1 - 0.55) = 270 / 0.45 = 600

Females = 600 - 270 = 330

Company D:

Males = 120

Percentage of Females = 60%

Total Employees =120 / (1 - 0.60) = 120 / 0.40 = 300

Females = 300 - 120 = 180

Company E:

Males = 180

Percentage of Females = 50%

Total Employees =180 / (1 - 0.50) = 180 / 0.50 = 360

Females = 360 - 180 = 180

Calculations:

60% of total employees in Company A are aged above 40 years.

Number of employees aged above 40 = 60% × 400 = 240

Half of the employees aged above 40 are females.

Number of females aged above 40 = 240 / 2 = 120

Total employees aged above 40 = 240

Females aged above 40 = 120

Males aged above 40 = 240 - 120 = 120

Or

Males aged ≤ 40 = 240 - 120 = 120

Thus, the number of males aged ≤ 40 years in Company A is 120.

Q50. Answer: (b) 1079

General Solution:

The total employees in a company = Males + Females.

From the given data, we can calculate the total employees for each company using the percentage of female employees.

Formula: Total Employees = Males / (1 - Percentage of Females)

Company A:

Males = 240

Percentage of Females = 40%

Total Employees = 240 / (1 - 0.40) = 240 / 0.60 = 400

Females = 400 - 240 = 160

YourMockTest.com — Free Study Material

Company B:
Males = 275
Percentage of Females = 45%
Total Employees = 275 / (1 - 0.45) = 275 / 0.55 = 500
Females = 500 - 275 = 225
Company C:
Males = 270
Percentage of Females = 55%
Total Employees =270 / (1 - 0.55) = 270 / 0.45 = 600
Females = 600 - 270 = 330
Company D:
Males = 120
Percentage of Females = 60%
Total Employees =120 / (1 - 0.60) = 120 / 0.40 = 300
Females = 300 - 120 = 180
Company E:
Males = 180
Percentage of Females = 50%
Total Employees =180 / (1 - 0.50) = 180 / 0.50 = 360
Females = 360 - 180 = 180
Calculations:
Let's calculate the number of employees receiving benefits:
Company C (Promotions):
Male employees in C: 270
Promoted males: 30% of 270 = 0.30 × 270 = 81
Company A (Responsibilities):
Female employees in A: 160
Females with responsibilities: 35% of 160 = 0.35 × 160 = 56
Company E (Bonuses):
Total employees in E: 360
Employees with bonuses: 40% of 360 = 0.40 × 360 = 144
Now, let's calculate the number of employees NOT receiving benefits:
Company C:
Total employees in C: 600
Employees without promotions: 600 - 81 = 519
Company A:
Total employees in A: 400
Employees without responsibilities: 400 - 56 = 344
Company E:
Total employees in E: 360
Employees without bonuses: 360 - 144 = 216
So,
Total employees without benefits: 519 (C) + 344 (A) + 216 (E) = 1079
Therefore, the total number of employees in these three companies who did not receive any promotion, responsibility, or bonus is 1079.

Q51. Answer: (a) 25:20:33

General Solution:
The total employees in a company = Males + Females.
From the given data, we can calculate the total employees for each company using the percentage of female employees.
Formula: Total Employees = Males / (1 - Percentage of Females)
Company A:

Males = 240
Percentage of Females = 40%
Total Employees = 240 / (1 - 0.40) = 240 / 0.60 = 400
Females = 400 - 240 = 160
Company B:
Males = 275
Percentage of Females = 45%
Total Employees = 275 / (1 - 0.45) = 275 / 0.55 = 500
Females = 500 - 275 = 225
Company C:
Males = 270
Percentage of Females = 55%
Total Employees =270 / (1 - 0.55) = 270 / 0.45 = 600
Females = 600 - 270 = 330
Company D:
Males = 120
Percentage of Females = 60%
Total Employees =120 / (1 - 0.60) = 120 / 0.40 = 300
Females = 300 - 120 = 180
Company E:
Males = 180
Percentage of Females = 50%
Total Employees =180 / (1 - 0.50) = 180 / 0.50 = 360
Females = 360 - 180 = 180
Calculations:
Company A:
Original males = 240
Increase by 25% = 240 × 1.25 = 300
Company B:
Original males = 275
Decrease by 20% = 275 × 0.80 = 220
Company C:
Original males = 270
Increase by 10% = 270 × 1.10 = 297
Company A:
Percentage of females = 40%
Total employees = 300 / (1 - 0.40) = 300 / 0.60 = 500
Company B:
Percentage of females = 45%
Total employees = 220 / (1 - 0.45) = 220 / 0.55 = 400
Company C:
Percentage of females = 55%
Total employees = 297 / (1 - 0.55) = 297 / 0.45 = 660
Total employees in A : B : C = 500 : 400 : 660 = 25 : 20 : 33
Thus, the new ratio is 25:20:33.

Q52. Answer: (b) 1800

Shortcut Trick
Ratio of Profit share = (Investment_A × Time_A) : (Investment_B × Time_B) : (Investment_C × Time_C).
From A and B's profit ratio: (4500 × y) : (5500 × (y + 3)) = 63 : 110.
9y : 11(y + 3) = 63 : 110 => 9y ÷ (11y + 33) = 63 ÷ 110 => y ÷ (y + 3) = 7 ÷ 10.
10y = 7y + 21 => 3y = 21 => y = 7.

Total Profit = 79250, Charity = 20%, Remaining = 80% of 79250 = 63400.

Profit share of A = [63 ÷ (63 + 110 + 144)] × 63400 = (63 ÷ 317) × 63400 = 12600. Required ratio = 12600 ÷ 7 = 1800.

Therefore The correct answer is 1800.

Alternate Method

Given → Investments: A = 4500, B = 5500, C = 6000. Time: A = y, B = y + 3, C = 12. Profit Ratio = 63 : 110 : 144. Total Profit = 79250.

Formulas: Profit Share = Investment × Time | Remaining Profit = Total × (100 − Charity%) ÷ 100.

=> Calculate y using A and C: (4500 × y) ÷ (6000 × 12) = 63 ÷ 144.

=> 4500y ÷ 72000 = 63 ÷ 144 => y ÷ 16 = 63 ÷ 144 => y = (63 × 16) ÷ 144 = 7.

=> Net Profit after charity = 79250 × 0.8 = 63400.

=> Profit of A = [63 ÷ (63 + 110 + 144)] × 63400 = (63 ÷ 317) × 63400 = 63 × 200 = 12600.

=> Required value = Profit of A ÷ y = 12600 ÷ 7 = 1800.

Therefore The correct answer is 1800.

Additional Information

Partnership Basics

In a partnership, profits are distributed in the ratio of the product of Investment and Time period. Profit Share = Capital × Time.

Effective Profit

When a portion of profit is donated to charity or kept as a reserve, the remaining profit is distributed among partners based on their investment-time ratios.

Q53. Answer: (c) 360 Rs.

Shortcut Trick

Interest from Scheme P = 1500 × 11.25% × 4 = 1500 × 45% = Rs. 675.

Interest from Scheme Q = 1200 × 25% × X = 300X.

Equating both: 300X = 675 => X = 2.25 years.

Rate for Scheme R = 4X% = 4 × 2.25 = 9%.

Interest from Scheme R = 2000 × 9% × 2 = Rs. 360.

Therefore The correct answer is 360 Rs.

Alternate Method

Given: Principal P1 = Rs. 1500, R1 = 11.25%, T1 = 4 years; Principal P2 = Rs. 1200, R2 = 25%, T2 = X years; Principal P3 = Rs. 2000, R3 = 4X%, T3 = 2 years.

Formula Used: Simple Interest (SI) = (P × R × T) ÷ 100

=> SI_P = (1500 × 11.25 × 4) ÷ 100 = 15 × 45 = Rs. 675

=> SI_Q = (1200 × 25 × X) ÷ 100 = 12 × 25 × X = 300X

=> Since SI_P = SI_Q, 300X = 675 => X = 675 ÷ 300 = 2.25

=> For Scheme R: Rate = 4X% = 4 × 2.25 = 9%

=> Interest in Scheme R = (2000 × 9 × 2) ÷ 100 = 20 × 18 = Rs. 360

Therefore The correct answer is 360 Rs.

Additional Information

Simple Interest Property

Simple Interest is calculated only on the Principal amount. It remains constant for every year if the rate and principal are unchanged.

Effective Rate of Interest

The total interest percentage over a period is the product of Rate (R) and Time (T). Total Interest = (R × T)% of Principal.

Comparison of Interests

When interests are equal, P1R1T1 = P2R2T2. This relation can be used to find any missing variable directly.

Q54. Answer: (c) 3 kmph

Shortcut Trick

Let Upstream speed be U and Downstream speed be D.

Given U + D = 30. Using trial values from the sum: If U = 9 and D = 21 (since 9+21=30):

Case 1: 72/9 + 180/21 = 8 + 8.57 ≠ 16. If U = 12 and D = 18: 72/12 + 180/18 = 6 + 10 = 16 hours (Satisfied).

Case 2: 108/12 + 126/18 = 9 + 7 = 16 hours (Satisfied). U = 12 kmph, D = 18 kmph.

Speed of stream = (D − U) ÷ 2 = (18 − 12) ÷ 2 = 3 kmph.
Therefore The correct answer is 3 kmph.
Alternate Method
Given:
Distance Upstream1 = 72 km, Distance Downstream1 = 180 km, Time1 = 16 hours
Distance Upstream2 = 108 km, Distance Downstream2 = 126 km, Time2 = 16 hours
Formula Used: Time = Distance ÷ Speed; Stream Speed = (D − U) ÷ 2
=> 72/U + 180/D = 16 ---- (i)
=> 108/U + 126/D = 16 ---- (ii)
=> Since both equal 16: 72/U + 180/D = 108/U + 126/D
=> 180/D − 126/D = 108/U − 72/U
=> 54/D = 36/U => D/U = 54/36 = 3/2
=> Let D = 3k and U = 2k. Given U + D = 30 => 5k = 30 => k = 6
=> D = 18 kmph, U = 12 kmph
=> Speed of stream = (18 − 12) ÷ 2 = 6 ÷ 2 = 3 kmph
Therefore The correct answer is 3 kmph.
Additional Information
Boat Speed in Still Water
It is the average of downstream and upstream speeds: B = (D + U) ÷ 2.
Speed of Stream
It is half the difference between downstream and upstream speeds: S = (D − U) ÷ 2.
Relative Speed in Water
Downstream Speed (D) = Speed of Boat (B) + Speed of Stream (S); Upstream Speed (U) = B − S.

Q55. Answer: (c) 15

Shortcut Trick
Let Q's present age be 11x and R's present age be 15x.
From (P − 5) : (11x + 5) = 2 : 3 => P = (22x + 10)/3 + 5.
Using P + R = 120 => (22x + 25)/3 + 15x = 120 => 67x = 335 => x = 5.
P = 45 years, Q = 55 years. Since (P + y) : (Q + 5) = 1 : 1 => 45 + y = 60.
Therefore The correct answer is 15 years.
Alternate Method
Given: Ratio (P − 5) : (Q + 5) = 2 : 3, Q : R = 11 : 15, P + R = 120.
=> Let Q = 11x and R = 15x.
=> (P − 5) / (11x + 5) = 2 / 3
=> 3P − 15 = 22x + 10 => 3P − 22x = 25 --- (Eq. 1)
=> P + 15x = 120 => P = 120 − 15x --- (Eq. 2)
=> Substitute Eq. 2 in Eq. 1: 3(120 − 15x) − 22x = 25
=> 360 − 45x − 22x = 25 => 335 = 67x => x = 5.
=> Present Age of Q = 11 × 5 = 55 years.
=> Present Age of P = 120 − 15(5) = 45 years.
=> (P + y) / (Q + 5) = 1 / 1 => 45 + y = 55 + 5
=> 45 + y = 60 => y = 15.
Therefore The correct answer is 15.
Additional Information
Ratio of Ages
If the ratio of ages is a:b, we assume ages as ax and bx. The difference between ages remains constant over time.
Linear Equations in Ages
Age n years ago = (Present Age − n). Age n years hence = (Present Age + n).
Proportion Rule
If two quantities are in ratio 1:1, it implies they are equal to each other.

Q56. Answer: (c) 70

Considering the given series

9, 10, 22, 70, 280, 1405

The logic of the given series can be explained as

9 × 1 + 1 = 10

10 × 2 + 2 = 22

22 × 3 + 3 = 69

69 × 4 + 4= 280

280 × 5 + 5 = 1405

Therefore Wrong term in given number series is 70.

Q57. Answer: (a) 4903

GIVEN:

144, 2197, 196, 3375, 256, 4903

CALCULATION:

=> $17^3 = 4913$

=> So, 4903 is the wrong term.

Q58. Answer: (d) 412

Considering the given series

49, 110, 174, 244, 323, 412, 520

The logic of the given series can be explained as

49	110	174	244	323	414	520
+61	+64	+70	+79	+91	+106	
	+3	+6	+9	+12	+15	

Therefore Wrong term in given number series is 412.

Q59. Answer: (d) Rs. 500

Shortcut Trick

Initial Savings: A = Rs. 9000 (75% of x), B = Rs. 10000 (66.67% of y).

New Savings: Since expenditure percentage remains same, savings percentage also remains same.

New Savings of A = 9000 × 1.5 = Rs. 13500 | New Savings of B = 10000 × 1.4 = Rs. 14000.

Difference = 14000 − 13500 = Rs. 500.

Therefore The correct answer is Rs. 500.

Alternate Method

Given:

Savings of A = 75% of x = Rs. 9000 => x = 9000 ÷ 0.75 = Rs. 12000

Savings of B = 66.67% of y = Rs. 10000 => y = 10000 ÷ (2/3) = Rs. 15000

New Calculations:

=> New Income A = 12000 × 150% = Rs. 18000

=> New Expenditure A = 25% of 18000 = Rs. 4500

=> New Savings A = 18000 − 4500 = Rs. 13500

=> New Income B = 15000 × 140% = Rs. 21000

=> New Expenditure B = 33.333% of 21000 = 1/3 × 21000 = Rs. 7000

=> New Savings B = 21000 − 7000 = Rs. 14000

=> Difference = 14000 − 13500 = Rs. 500

Therefore The correct answer is Rs. 500.

Additional Information

Income, Expenditure and Savings Relationship

The basic formula is Income = Expenditure + Savings. If the expenditure percentage remains constant, savings will grow at the same rate as income.

YourMockTest.com — Free Study Material

Percentage to Fraction Conversion

Useful conversions: 25% = 1/4, 75% = 3/4, 33.333% = 1/3, and 66.666% = 2/3.

Q60. Answer: (c) 75%

Shortcut Trick

Total Work (LCM of 8, 12, 6) = 24 units.

Efficiencies: A = 3, B = 2, C = 4. Combined B+C = 6.

Work Equation: (B+C)×x + A×(x+2) = 24 => 6x + 3(x+2) = 24 => 9x = 18 => x = 2.

Work by A in (x+4) = 6 days: 3 × 6 = 18 units.

Percentage = (18/24) × 100 = 75%.

Therefore The correct answer is 75%.

Alternate Method

Given: Time taken by A = 8 days, B = 12 days, C = 6 days.

Formula Used: Total Work = Efficiency × Time; Efficiency = Total Work ÷ Time.

Person	Days	Total Work	Efficiency
A	8	24	3
B	12	2	
C	6	4	

Calculations:

=> Work done by B and C in x days = (2 + 4) × x = 6x units.

=> Work done by A in (x + 2) days = 3 × (x + 2) = 3x + 6 units.

=> Total Work: 6x + 3x + 6 = 24

=> 9x = 18 => x = 2.

=> If A alone works for (x + 4) days = (2 + 4) = 6 days.

=> Work done by A in 6 days = 3 × 6 = 18 units.

=> Percentage of work completed = (18 ÷ 24) × 100

=> Percentage = 0.75 × 100 = 75%.

Therefore The correct answer is 75%.

Additional Information

Efficiency and Time Relationship

Efficiency is inversely proportional to the time taken to complete the work (E prop. to 1/T).

Remaining Work Calculation

Remaining Work = Total Work − Work already completed by previous group of workers.

Combined Efficiency

When people work together, their individual efficiencies are added to find the total rate of work (E_(Total) = E1 + E2 + ...).

Q61. Answer: (e) Rs. 6,750

General Solution:

Determine the value of 'x':

The sum of the percentages of profit from all items must equal 100%.

Therefore: (2x - 2) + (x + 1) + (x + 3) + (x - 1) + (x + 9) = 100

6x + 10 = 100

6x = 90

x = 15

Now, let's calculate the percentage of profit earned from each item:

Bag: (2 × 15 - 2)% = 28%

Bottle: (15 + 1)% = 16%

Box: (15 + 3)% = 18%

Pen: (15 - 1)% = 14%

Register: (15 + 9)% = 24%

Now, let's calculate the actual profit (in Rupees) earned from each item:

Bag: 28% of Rs. 25,000 = 0.28 × 25,000 = Rs. 7,000
Bottle: 16% of Rs. 25,000 = 0.16 × 25,000 = Rs. 4,000
Box: 18% of Rs. 25,000 = 0.18 × 25,000 = Rs. 4,500
Pen: 14% of Rs. 25,000 = 0.14 × 25,000 = Rs. 3,500
Register: 24% of Rs. 25,000 = 0.24 × 25,000 = Rs. 6,000
Calculations:
Profit from bags = Rs. 7,000
Percentage reinvested = 45%
Amount reinvested = (45/100) × 7,000 = Rs. 3,150
Profit from registers = Rs. 6,000
Percentage reinvested = 60%
Amount reinvested = (60/100) × 6,000 = Rs. 3,600
Total reinvested = 3,150 + 3,600 = Rs. 6,750
Thus, the correct answer is Rs. 6,750

Q62. Answer: (a) 6%

General Solution:
Determine the value of 'x':
The sum of the percentages of profit from all items must equal 100%.
Therefore: (2x - 2) + (x + 1) + (x + 3) + (x - 1) + (x + 9) = 100
6x + 10 = 100
6x = 90
x = 15
Now, let's calculate the percentage of profit earned from each item:
Bag: (2 × 15 - 2)% = 28%
Bottle: (15 + 1)% = 16%
Box: (15 + 3)% = 18%
Pen: (15 - 1)% = 14%
Register: (15 + 9)% = 24%
Now, let's calculate the actual profit (in Rupees) earned from each item:
Bag: 28% of Rs. 25,000 = 0.28 × 25,000 = Rs. 7,000
Bottle: 16% of Rs. 25,000 = 0.16 × 25,000 = Rs. 4,000
Box: 18% of Rs. 25,000 = 0.18 × 25,000 = Rs. 4,500
Pen: 14% of Rs. 25,000 = 0.14 × 25,000 = Rs. 3,500
Register: 24% of Rs. 25,000 = 0.24 × 25,000 = Rs. 6,000
Calculations:
We are given:
The cost price CP of all registers = Rs. 19,000
Profit earned on registers = Rs. 6,000
The total selling price SP of all registers = CP + Profit = Rs. 19,000 + Rs. 6,000 = Rs. 25,000
The marked price MP of all registers is 40% above the cost price
Since the marked price is 40% more than the cost price, we calculate:
MP = CP + 40% of CP
MP = 19000 + (40 / 100 × 19000)
MP = 19000 + 7600 = 26600
The discount is given on the marked price to reach the selling price.
So, the discount amount is:
Discount = MP − SP = 26600 − 25000 = 1600
Now, the discount percentage is:
Discount % = Discount / Marked Price × 100 = 1600 / 26600 × 100 ≈ 6.02%
Thus, the approximate percentage discount applied to the marked price is 6%.

YourMockTest.com — Free Study Material

Q63. Answer: (a) 12.5%, 12.25%

General Solution:

Determine the value of 'x':

The sum of the percentages of profit from all items must equal 100%.

Therefore: (2x - 2) + (x + 1) + (x + 3) + (x - 1) + (x + 9) = 100

6x + 10 = 100

6x = 90

x = 15

Now, let's calculate the percentage of profit earned from each item:

Bag: (2 × 15 - 2)% = 28%

Bottle: (15 + 1)% = 16%

Box: (15 + 3)% = 18%

Pen: (15 - 1)% = 14%

Register: (15 + 9)% = 24%

Now, let's calculate the actual profit (in Rupees) earned from each item:

Bag: 28% of Rs. 25,000 = 0.28 × 25,000 = Rs. 7,000

Bottle: 16% of Rs. 25,000 = 0.16 × 25,000 = Rs. 4,000

Box: 18% of Rs. 25,000 = 0.18 × 25,000 = Rs. 4,500

Pen: 14% of Rs. 25,000 = 0.14 × 25,000 = Rs. 3,500

Register: 24% of Rs. 25,000 = 0.24 × 25,000 = Rs. 6,000

Calculations:

Given that the profit percentage for the Notebook is:

(0.5x + 5)%

Substituting x = 15 from the general solution:

0.5 × 15 + 5 = 7.5 + 5 = 12.5%

Thus, the Notebook represents 12.5% of the total profit.

Now, the total profit percentage must still sum to 100%, but we have added the Notebook while keeping the total profit constant.

The original sum of the profit percentages was 100% from 5 items. Now, the Notebook takes 12.5%, meaning the remaining 87.5% must be redistributed among the previous five items in the same proportion.

The adjusted percentage for each previous item is calculated as:

New Percentage = Old Percentage / 100 × 87.5

Bag: 28 / 100 × 87.5 = 24.5%

Bottle: 16 / 100 × 87.5 = 14%

Box: 18 / 100 × 87.5 = 15.75%

Pen: 14 / 100 × 87.5 = 12.25%

Register: 24 / 100 × 87.5 = 21%

Thus, the new percentage of profit from the Pen is 12.25%.

Thus,

Notebook represents 12.5% of the total profit.

New profit percentage of the Pen: 12.25%.

Q64. Answer: (b) Rs. 2,082.5

General Solution:

Determine the value of 'x':

The sum of the percentages of profit from all items must equal 100%.

Therefore: (2x - 2) + (x + 1) + (x + 3) + (x - 1) + (x + 9) = 100

6x + 10 = 100

6x = 90

x = 15

Now, let's calculate the percentage of profit earned from each item:

Bag: (2 × 15 - 2)% = 28%

Bottle: (15 + 1)% = 16%

Box: (15 + 3)% = 18%
Pen: (15 - 1)% = 14%
Register: (15 + 9)% = 24%
Now, let's calculate the actual profit (in Rupees) earned from each item:
Bag: 28% of Rs. 25,000 = 0.28 × 25,000 = Rs. 7,000
Bottle: 16% of Rs. 25,000 = 0.16 × 25,000 = Rs. 4,000
Box: 18% of Rs. 25,000 = 0.18 × 25,000 = Rs. 4,500
Pen: 14% of Rs. 25,000 = 0.14 × 25,000 = Rs. 3,500
Register: 24% of Rs. 25,000 = 0.24 × 25,000 = Rs. 6,000
Calculations:
Profit from pens = Rs. 3,500
15% donation from pens = 15 / 100 × 3,500 = 525
Profit from bottles = Rs. 4,000
20% donation from bottles = 20 / 100 × 4,000 = 800
Remaining profit after donation = 3,500 − 525 = 2,975
30% of remaining profit from pens = 30 / 100 × 2,975 = 892.5
Final remaining profit = 2,975 − 892.5 = 2,082.5
Thus, the correct answer is Rs. 2,082.50

Q65. Answer: (c) Rs. 26,550

General Solution:
Determine the value of 'x':
The sum of the percentages of profit from all items must equal 100%.
Therefore: (2x - 2) + (x + 1) + (x + 3) + (x - 1) + (x + 9) = 100
6x + 10 = 100
6x = 90
x = 15
Now, let's calculate the percentage of profit earned from each item:
Bag: (2 × 15 - 2)% = 28%
Bottle: (15 + 1)% = 16%
Box: (15 + 3)% = 18%
Pen: (15 - 1)% = 14%
Register: (15 + 9)% = 24%
Now, let's calculate the actual profit (in Rupees) earned from each item:
Bag: 28% of Rs. 25,000 = 0.28 × 25,000 = Rs. 7,000
Bottle: 16% of Rs. 25,000 = 0.16 × 25,000 = Rs. 4,000
Box: 18% of Rs. 25,000 = 0.18 × 25,000 = Rs. 4,500
Pen: 14% of Rs. 25,000 = 0.14 × 25,000 = Rs. 3,500
Register: 24% of Rs. 25,000 = 0.24 × 25,000 = Rs. 6,000
Calculations:
From the general solution:
Profit on Box = Rs. 4,500
Profit on Pen = Rs. 3,500
Selling Price of Box:
Cost Price (CP) of Box = Rs. 15,000
Profit = Rs. 4,500
Selling Price (SP) of Box = CP + Profit = 15,000 + 4,500 = Rs. 19,500
Selling Price of Pen:
Cost Price CP of Pen = Rs. 20,000
Profit = Rs. 3,500
Selling Price (SP) of Pen = CP + Profit = 20,000 + 3,500 = Rs. 23,500
Box: Selling price increases by 20%

New SP of Box = 19,500 × 1.20 = Rs. 23,400
Pen: Selling price decreases by 10%
New SP of Pen = 23,500 × 0.90 = Rs. 21,150
New Profit on Box:
New SP of Box = Rs. 23,400
CP of Box = Rs. 15,000
New Profit = 23,400 15,000 = Rs. 8,400
New Profit on Pen:
New SP of Pen = Rs. 21,150
CP of Pen = Rs. 20,000
New Profit = 21,150 - 20,000 = Rs. 1,150
From the general solution, the original profits on other items are:
Bag = Rs. 7,000
Bottle = Rs. 4,000
Register = Rs. 6,000
New profits:
Box = Rs. 8,400
Pen = Rs. 1,150
Total new profit = 7,000 + 4,000 + 8,400 + 1,150 + 6,000 = Rs. 26,550
Thus, the new total profit earned by the shopkeeper is Rs. 26,550.

Q66. Answer: (d) Rs. 3,250

General Solution:
Determine the value of 'x':
The sum of the percentages of profit from all items must equal 100%.
Therefore: (2x - 2) + (x + 1) + (x + 3) + (x - 1) + (x + 9) = 100
6x + 10 = 100
6x = 90
x = 15
Now, let's calculate the percentage of profit earned from each item:
Bag: (2 × 15 - 2)% = 28%
Bottle: (15 + 1)% = 16%
Box: (15 + 3)% = 18%
Pen: (15 - 1)% = 14%
Register: (15 + 9)% = 24%
Now, let's calculate the actual profit (in Rupees) earned from each item:
Bag: 28% of Rs. 25,000 = 0.28 × 25,000 = Rs. 7,000
Bottle: 16% of Rs. 25,000 = 0.16 × 25,000 = Rs. 4,000
Box: 18% of Rs. 25,000 = 0.18 × 25,000 = Rs. 4,500
Pen: 14% of Rs. 25,000 = 0.14 × 25,000 = Rs. 3,500
Register: 24% of Rs. 25,000 = 0.24 × 25,000 = Rs. 6,000
Calculations:
We are given:
Total bottles sold = 500
Cost price per bottle = Rs. 50
Originally, all bottles were sold at a 20% profit.
Selling price per bottle = Cost price + 20% profit = 50 + 20 / 100 × 50 = 50 + 10 = 60
20% of bottles are defective
20 / 100 × 500 = 100 defective bottles
These defective bottles were sold at a 15% loss.
Selling price per defective bottle = Cost price − 15% loss = 50 − 15 / 100 × 50 = 50 − 7.5 = 42.5
Total loss from defective bottles:

Total loss = 50 − 42.5 × 100 = 7.5 × 100 = 750

We initially had a profit of Rs. 4,000 from bottles.

Net profit = Initial profit − Loss from defective bottles = 4,000 − 750 = 3,250

Thus, the net profit earned from bottles after accounting for defective items is Rs. 3,250.

Q67. Answer: (c) 30 kmph

Shortcut Trick

Let speed of Car A be S_A and Car B be S_B.

From the second condition: Total Distance = (Relative Speed) × Time

=> 160 = [S_A + (S_B + 10)] × 2 => S_A + S_B = 70 kmph.

Using the first condition (distance 120 km, 1 hr difference): Try values that sum to 70.

If S_A = 30 and S_B = 40: (120/30) − (120/40) = 4 − 3 = 1 hour. This satisfies all conditions.

Therefore The correct answer is 30 kmph.

Alternate Method

Given: Distance = 120 km, Time difference = 1 hr, Distance apart = 160 km, Meeting time = 2 hr.

Case 1: Movement in opposite directions

=> Relative Speed = S_A + (S_B + 10)

=> 160 / 2 = S_A + S_B + 10

=> 80 = S_A + S_B + 10 => S_A + S_B = 70 --- (i)

Case 2: Time difference for 120 km

=> (120 / S_A) − (120 / S_B) = 1

=> 120 × (S_B − S_A) = S_A × S_B

Substitute S_B = 70 − S_A from (i):

=> 120 × (70 − S_A − S_A) = S_A(70 − S_A)

=> 120(70 − 2S_A) = 70S_A − S_A^2

=> 8400 − 240S_A = 70S_A − S_A^2

=> S_A^2 − 310S_A + 8400 = 0

=> (S_A − 30)(S_A − 280) = 0

=> Since speed < 100 kmph, S_A = 30 kmph.

Therefore The correct answer is 30 kmph.

Additional Information

Relative Speed

When two objects move in opposite directions, relative speed is the sum of their individual speeds (u + v). When moving in the same direction, it is the difference (u − v).

Time, Speed, and Distance Relation

For a constant distance, time is inversely proportional to speed. T1/T2 = S2/S1.

Meeting Time Formula

Meeting Time = (Initial distance between objects) ÷ (Relative Speed).

Q68. Answer: (b) 12 kg

Shortcut Trick

Let n be the number of students and A be the original average.

Case 1: 30 − A = 2(n + 1) => 30 − A = 2n + 2 => 2n + A = 28

Case 2: 54 − 2A = 3(n + 2) => 54 − 2A = 3n + 6 => 3n + 2A = 48

Multiply Case 1 by 2: 4n + 2A = 56. Subtract Case 2: (4n − 3n) = 56 − 48 => n = 8.

Substitute n = 8 in Case 1: 2(8) + A = 28 => 16 + A = 28 => A = 12 kg.

Therefore The correct answer is 12 kg.

Alternate Method

Given: Original average = A, Total students = n.

Formula: Total Weight = Average × Number of students.

=> Case 1: (nA + 30) = (n + 1)(A + 2)

=> nA + 30 = nA + 2n + A + 2 => 2n + A = 28 ... (i)

=> Case 2: (nA + 2 × 27) = (n + 2)(A + 3)

=> nA + 54 = nA + 3n + 2A + 6 => 3n + 2A = 48 ... (ii)

=> From (i), A = 28 − 2n. Substitute in (ii):

=> 3n + 2(28 − 2n) = 48 => 3n + 56 − 4n = 48

=> −n = −8 => n = 8 students

=> A = 28 − 2(8) = 28 − 16 = 12 kg

Therefore The correct answer is 12 kg.

Additional Information

Net Deviation Method

In average problems, the sum of deviations from the original average is equal to the total increase or decrease in weight across all members (Net Deviation = Change in Average × New Total Count).

Weighted Average

When two groups are combined, the new average A_w = (n1A1 + n2A2) ÷ (n1 + n2).

Q69. Answer: (b) 360 cm²

Shortcut Trick

Using Total Surface Area (TSA) formula: 2πr(r + h) = 960 with π = 3.

=> 2 × 3 × (x − 4)(x − 4 + x) = 960 => (x − 4)(2x − 4) = 160.

=> (x − 4)(x − 2) = 80. By inspection, if x = 12, then 8 × 10 = 80.

Breadth (b) = x = 12 cm. CSA = 2 × 3 × 8 × 12 = 576 cm2.

Perimeter (P) = 576 − 492 = 84 cm. 2(L + 12) = 84 => L = 30 cm.

Area = 30 × 12 = 360 cm2.

Therefore The correct answer is 360 cm2.

Alternate Method

Given: TSA = 960 cm2, π = 3, Height (h) = x, Radius (r) = x − 4, Breadth (b) = x.

Formula Used: TSA = 2πr(h + r); CSA = 2πrh; Perimeter = 2(L + b); Area = L × b.

=> 2 × 3 × (x − 4)(x + x − 4) = 960

=> 6 × (x − 4)(2x − 4) = 960

=> (x − 4) × 2(x − 2) = 160

=> x2 − 6x + 8 = 80 => x2 − 6x − 72 = 0

=> (x − 12)(x + 6) = 0 => x = 12 cm (as x > 0)

=> Radius (r) = 12 − 4 = 8 cm; Height (h) = 12 cm; Breadth (b) = 12 cm

=> CSA of Cylinder = 2 × 3 × 8 × 12 = 576 cm2

=> Perimeter of Rectangle = CSA − 492 = 576 − 492 = 84 cm

=> 2(L + 12) = 84 => L + 12 = 42 => L = 30 cm

=> Area of Rectangle = 30 × 12 = 360 cm2

Therefore The correct answer is 360 cm2.

Additional Information

Cylinder Formulas

Curved Surface Area = 2πrh. Total Surface Area = 2πr(h + r). Volume = πr2h.

Rectangle Properties

Perimeter = 2(Length + Breadth). Area = Length × Breadth. Diagonal = √(L2 + B2).

Quadratic Roots Shortcut

For ax2 + bx + c = 0, find two numbers that multiply to ac and add to b, then change signs and divide by a.

Q70. Answer: (e) 200

Shortcut Trick

Equate the sum of individual honey parts to the total honey in the final mixture.

Total Honey = (7/10)×(x+20) + (3/5)×(x−30) + (5/8)×(2x)

Total Water = (3/10)×(x+20) + (2/5)×(x−30) + (3/8)×(2x)

Ratio 20:11 => 11×Honey = 20×Water. Solving gives x = 80.

Calculate 2.5x = 2.5 × 80 = 200 ml.

YourMockTest.com — Free Study Material

Therefore The correct answer is 200 ml.

Alternate Method

Given: Ratio of Honey : Water in Y = 7:3, Z = 3:2, T = 5:3. Final Ratio = 20:11.

=> Honey from Y = 0.7(x + 20) = 0.7x + 14

=> Honey from Z = 0.6(x − 30) = 0.6x − 18

=> Honey from T = (5/8) × 2x = 1.25x

=> Total Honey = 0.7x + 14 + 0.6x − 18 + 1.25x = 2.55x − 4

=> Total Mixture = (x + 20) + (x − 30) + 2x = 4x − 10

=> (Total Honey) / (Total Mixture) = 20 / (20 + 11) = 20/31

=> (2.55x − 4) / (4x − 10) = 20 / 31

=> 31(2.55x − 4) = 20(4x − 10)

=> 79.05x − 124 = 80x − 200

=> 0.95x = 76 => x = 76 / 0.95 = 80

=> 2.5x = 2.5 × 80 = 200

Therefore The correct answer is 200 ml.

Additional Information

Mixture Rule

When multiple mixtures are combined, the total quantity of a specific component is the sum of that component in each individual mixture.

Ratio to Fraction

If the ratio of A:B is m:n, then the quantity of A in a total volume V is [m/(m+n)] × V.

Weighted Average of Ratios

Final concentration C = (q1c1 + q2c2 + ... + q_nc_n) / (q1 + q2 + ... + q_n).

Q71. Answer: (c) M

1) X born in a month which have odd number of days but not on even date of a month.

2) Only one person born between X and O.

3) More than three person born between E and the person who lives in Delhi.

Month	**Date**	**Case – 1**	**Case – 2**	**Case – 3**			
Person	City	Person	City	Person	City		
March	9	X	Delhi	E			Delhi
26							
April	9	O		O		O	
26							
May	9			X		X	
26	E			Delhi	E		

4) J lives in a city which start with the same alphabetical letter. Therefore, case 1 further divided into two cases.

5) Person who lives in Mumbai born immediately after O.

Month	**Date**	**Case – 1(a)**	**Case – 1(b)**	**Case – 2**	**Case – 3**				
Person	City	Person	City	Person	City	Person	City		
March	9	X	Delhi	X	Delhi	E			Delhi
26			J	Jaipur	J	Jaipur	J	Jaipur	
April	9	O		O		O		O	
26		Mumbai		Mumbai		Mumbai		Mumbai	
May	9	J	Jaipur			X		X	
26	E		E			Delhi	E		

YourMockTest.com — Free Study Material

6) Only three person born between R and the person who lives in Patna. Therefore, case 1(b) and case 2 are eliminated.

7) Person who lives in Kolkata born before M but not immediately before him. Therefore, case 3 is eliminated. Hence, the final arrangement is as follows

Month	Date	Person	City
March	9	X	Delhi
26	R	Kolkata	
April	9	O	Lucknow
26	M	Mumbai	
May	9	J	Jaipur
26	E	Patna	

Hence, M lives in Mumbai.

Q72. Answer: (d) Two

1) X born in a month which have odd number of days but not on even date of a month.

2) Only one person born between X and O.

3) More than three person born between E and the person who lives in Delhi.

Month	Date	Case – 1	Case – 2	Case – 3			
Person	City	Person	City	Person	City		
March	9	X	Delhi	E			Delhi
26							
April	9	O		O		O	
26							
May	9			X		X	
26	E			Delhi	E		

4) J lives in a city which start with the same alphabetical letter. Therefore, case 1 further divided into two cases.

5) Person who lives in Mumbai born immediately after O.

Month	Date	Case – 1(a)	Case – 1(b)	Case – 2	Case – 3				
Person	City	Person	City	Person	City	Person	City		
March	9	X	Delhi	X	Delhi	E			Delhi
26			J	Jaipur	J	Jaipur	J	Jaipur	
April	9	O		O		O		O	
26		Mumbai		Mumbai		Mumbai		Mumbai	
May	9	J	Jaipur			X		X	
26	E		E			Delhi	E		

6) Only three person born between R and the person who lives in Patna. Therefore, case 1(b) and case 2 are eliminated.

7) Person who lives in Kolkata born before M but not immediately before him. Therefore, case 3 is eliminated. Hence, the final arrangement is as follows

Month	Date	Person	City
March	9	X	Delhi
26	R	Kolkata	
April	9	O	Lucknow

YourMockTest.com — Free Study Material

26	M	Mumbai	
May	9	J	Jaipur
26	E	Patna	

Since, J born on 9 May and R born on 26 March.

Hence, two person born between them which are O and M.

Q73. Answer: (a) M

1) X born in a month which have odd number of days but not on even date of a month.

2) Only one person born between X and O.

3) More than three person born between E and the person who lives in Delhi.

Month	**Date**	**Case – 1**	**Case – 2**	**Case – 3**			
Person	City	Person	City	Person	City		
March	9	X	Delhi	E			Delhi
26							
April	9	O		O		O	
26							
May	9			X		X	
26	E			Delhi	E		

4) J lives in a city which start with the same alphabetical letter. Therefore, case 1 further divided into two cases.

5) Person who lives in Mumbai born immediately after O.

Month	**Date**	**Case – 1(a)**	**Case – 1(b)**	**Case – 2**	**Case – 3**				
Person	City	Person	City	Person	City	Person	City		
March	9	X	Delhi	X	Delhi	E			Delhi
26			J	Jaipur	J	Jaipur	J	Jaipur	
April	9	O		O		O		O	
26		Mumbai		Mumbai		Mumbai		Mumbai	
May	9	J	Jaipur			X		X	
26	E		E			Delhi	E		

6) Only three person born between R and the person who lives in Patna. Therefore, case 1(b) and case 2 are eliminated.

7) Person who lives in Kolkata born before M but not immediately before him. Therefore, case 3 is eliminated. Hence, the final arrangement is as follows

Month	**Date**	**Person**	**City**
March	9	X	Delhi
26	R	Kolkata	
April	9	O	Lucknow
26	M	Mumbai	
May	9	J	Jaipur
26	E	Patna	

Since, on 9th May J was born and just before him M was born.

YourMockTest.com – Free Study Material

Q74. Answer: (e) O

1) X born in a month which have odd number of days but not on even date of a month.

2) Only one person born between X and O.

3) More than three person born between E and the person who lives in Delhi.

Month	Date	Case – 1	Case – 2	Case – 3			
Person	City	Person	City	Person	City		
March	9	X	Delhi	E			Delhi
26							
April	9	O		O		O	
26							
May	9			X		X	
26	E			Delhi	E		

4) J lives in a city which start with the same alphabetical letter. Therefore, case 1 further divided into two cases.

5) Person who lives in Mumbai born immediately after O.

Month	Date	Case – 1(a)	Case – 1(b)	Case – 2	Case – 3				
Person	City	Person	City	Person	City	Person	City		
March	9	X	Delhi	X	Delhi	E			Delhi
26			J	Jaipur	J	Jaipur	J	Jaipur	
April	9	O		O		O		O	
26		Mumbai		Mumbai		Mumbai		Mumbai	
May	9	J	Jaipur			X		X	
26	E		E			Delhi	E		

6) Only three person born between R and the person who lives in Patna. Therefore, case 1(b) and case 2 are eliminated.

7) Person who lives in Kolkata born before M but not immediately before him. Therefore, case 3 is eliminated. Hence, the final arrangement is as follows

Month	Date	Person	City
March	9	X	Delhi
26	R	Kolkata	
April	9	O	Lucknow
26	M	Mumbai	
May	9	J	Jaipur
26	E	Patna	

Hence, all except O born in the month which have odd number of days.

Q75. Answer: (e) More than one option.

1) X born in a month which have odd number of days but not on even date of a month.

2) Only one person born between X and O.

3) More than three person born between E and the person who lives in Delhi.

Month	Date	Case – 1	Case – 2	Case – 3			
Person	City	Person	City	Person	City		
March	9	X	Delhi	E			Delhi

YourMockTest.com — Free Study Material

26							
April	9	O		O		O	
26							
May	9			X		X	
26	E			Delhi	E		

4) J lives in a city which start with the same alphabetical letter. Therefore, case 1 further divided into two cases.

5) Person who lives in Mumbai born immediately after O.

Month	**Date**	**Case – 1(a)**	**Case – 1(b)**	**Case – 2**	**Case – 3**				
Person	City	Person	City	Person	City	Person	City		
March	9	X	Delhi	X	Delhi	E			Delhi
26		J	Jaipur	J	Jaipur	J	Jaipur		
April	9	O		O		O		O	
26		Mumbai		Mumbai		Mumbai		Mumbai	
May	9	J	Jaipur			X		X	
26	E		E			Delhi	E		

6) Only three person born between R and the person who lives in Patna. Therefore, case 1(b) and case 2 are eliminated.

7) Person who lives in Kolkata born before M but not immediately before him. Therefore, case 3 is eliminated. Hence, the final arrangement is as follows

Month	**Date**	**Person**	**City**
March	9	X	Delhi
26	R	Kolkata	
April	9	O	Lucknow
26	M	Mumbai	
May	9	J	Jaipur
26	E	Patna	

Since, O born on 9th April and J and E both born in May.

Hence, More than one option is correct.

Q76. Answer: (d) PU

Given, the persons are O, P, Q, R, S, T, U, V.

1) Only two person sits between U and V.

2) R sits second to the left of U.

3) R and P sits opposite to each other and facing opposite direction.

4) As many person sits between S and O as many person sits between S and Q, who sits third to the left of S. So case 1 and case 2 further divided into two more cases.

5) The immediate neighbour of Q faces in opposite direction. So if U faces outside (or inside) the other immediate neighbour of Q faces inside (or outside).

7) The number of person faces away from centre is less than that of faces towards centre. R is not the neighbour of O. Then case 1(b) is eliminated.

8) T and Q faces in same direction but faces opposite direction of P.

9) No three consecutive person faces in same direction. So, case 2(b) is eliminated.

10) S and V sits immediate left to each other. So, case 2(a) is eliminated. Hence, final arrangement is as follows

Hence, P and U sits adjacent to O.

YourMockTest.com — Free Study Material

Q77. Answer: (c) Two

Given, the persons are O, P, Q, R, S, T, U, V.

1) Only two person sits between U and V.

2) R sits second to the left of U.

3) R and P sits opposite to each other and facing opposite direction.

4) As many person sits between S and O as many person sits between S and Q, who sits third to the left of S. So case 1 and case 2 further divided into two more cases.

5) The immediate neighbour of Q faces in opposite direction. So if U faces outside (or inside) the other immediate neighbour of Q faces inside (or outside).

7) The number of person faces away from centre is less than that of faces towards centre. R is not the neighbour of O. Then case 1(b) is eliminated.

8) T and Q faces in same direction but faces opposite direction of P.

9) No three consecutive person faces in same direction. So, case 2(b) is eliminated.

10) S and V sits immediate left to each other. So, case 2(a) is eliminated. Hence, final arrangement is as follows

When counted from clockwise direction of O only two persons sits between O and S.

Q78. Answer: (b) P

Given, the persons are O, P, Q, R, S, T, U, V.

1) Only two person sits between U and V.

2) R sits second to the left of U.

3) R and P sits opposite to each other and facing opposite direction.

4) As many person sits between S and O as many person sits between S and Q, who sits third to the left of S. So case 1 and case 2 further divided into two more cases.

5) The immediate neighbour of Q faces in opposite direction. So if U faces outside (or inside) the other immediate neighbour of Q faces inside (or outside).

7) The number of person faces away from centre is less than that of faces towards centre. R is not the neighbour of O. Then case 1(b) is eliminated.

8) T and Q faces in same direction but faces opposite direction of P.

9) No three consecutive person faces in same direction. So, case 2(b) is eliminated.

10) S and V sits immediate left to each other. So, case 2(a) is eliminated. Hence, final arrangement is as follows

Hence, all except P faces towards the centre.

Q79. Answer: (d) S

Given, the persons are O, P, Q, R, S, T, U, V.

1) Only two person sits between U and V.

2) R sits second to the left of U.

3) R and P sits opposite to each other and facing opposite direction.

4) As many person sits between S and O as many person sits between S and Q, who sits third to the left of S. So case 1 and case 2 further divided into two more cases.

5) The immediate neighbour of Q faces in opposite direction. So if U faces outside (or inside) the other immediate neighbour of Q faces inside (or outside).

7) The number of person faces away from centre is less than that of faces towards centre. R is not the neighbour of O. Then case 1(b) is eliminated.

8) T and Q faces in same direction but faces opposite direction of P.

9) No three consecutive person faces in same direction. So, case 2(b) is eliminated.

10) S and V sits immediate left to each other. So, case 2(a) is eliminated. Hence, final arrangement is as follows

Hence, T sits opposite to U.

Q80. Answer: (b) V

Given, the persons are O, P, Q, R, S, T, U, V.

1) Only two person sits between U and V.

2) R sits second to the left of U.

3) R and P sits opposite to each other and facing opposite direction.

4) As many person sits between S and O as many person sits between S and Q, who sits third to the left of S. So case 1 and case

2 further divided into two more cases.

5) The immediate neighbour of Q faces in opposite direction. So if U faces outside (or inside) the other immediate neighbour of Q faces inside (or outside).

7) The number of person faces away from centre is less than that of faces towards centre. R is not the neighbour of O. Then case 1(b) is eliminated.

8) T and Q faces in same direction but faces opposite direction of P.

9) No three consecutive person faces in same direction. So, case 2(b) is eliminated.

10) S and V sits immediate left to each other. So, case 2(a) is eliminated. Hence, final arrangement is as follows

Hence, V sits immediate left of S.

Q81. Answer: (c) Y is the father of R.

Here, we use some notation

Six persons live in a family namely A, K, M, R, T and Y

1) M is the brother – in – law of husband of A's daughter – in – law. Which means M's sister is A's daughter – in – law or A's son is M's brother – in – law.

2) T is daughter – in – law of grandparent of K, who is the only niece of R's brother – in – law. So K is a female.

3) Y is a male person.

4) There is no single parents. Since there is two married couple so T must be A's daughter – in – law which means T is sister of M and mother of K. Therefore, R is T's husband and A's son. Since Y is a male person so A is a female.

Representing this in a family tree we get

Hence, all statements except Y is father of R are false.

Q82. Answer: (e) Brother - in - law

Here, we use some notation

Six persons live in a family namely A, K, M, R, T and Y

1) M is the brother – in – law of husband of A's daughter – in – law. Which means M's sister is A's daughter – in – law or A's son is M's brother – in – law.

2) T is daughter – in – law of grandparent of K, who is the only niece of R's brother – in – law. So K is a female.

3) Y is a male person.

4) There is no single parents. Since there is two married couple so T must be A's daughter – in – law which means T is sister of M and mother of K. Therefore, R is T's husband and A's son. Since Y is a male person so A is a female.

Representing this in a family tree we get

Hence, M is the brother - in - law of R.

Q83. Answer: (a) T

Here, we use some notation

Six persons live in a family namely A, K, M, R, T and Y

1) M is the brother – in – law of husband of A's daughter – in – law. Which means M's sister is A's daughter – in – law or A's son is M's brother – in – law.

2) T is daughter – in – law of grandparent of K, who is the only niece of R's brother – in – law. So K is a female.

3) Y is a male person.

4) There is no single parents. Since there is two married couple so T must be A's daughter – in – law which means T is sister of M and mother of K. Therefore, R is T's husband and A's son. Since Y is a male person so A is a female.

Representing this in a family tree we get

Hence, T is the mother of K.

Q84. Answer: (e) Grapes Box

1) The box which contains Kiwis placed either on top or on bottom.

2) Less than three boxes placed above the box of Apples.

3) Only one box placed between boxes of Grapes and Apples.

Position	Case – 1	Case – 2	Case – 3	Case – 4	Case – 5	Case – 6
Boxes	Boxes	Boxes	Boxes	Boxes	Boxes	
7	Kiwis	Grapes	Kiwis		Apples	

6			Apples	Apples		
5	Apples	Apples			Grapes	Apples
4			Grapes	Grapes		
3	Grapes					Grapes
2						
1		Kiwis		Kiwis	Kiwis	Kiwis

4) The box which contains Blueberries placed three boxes above the box of Pomegranates, which is below the box of Bananas.

5) The box which contains Oranges placed on even position below the sixth position. Since, if we place Oranges at second position in case 3 and case 4 which can not satisfy the fourth condition. So, case 4 and case 3 are eliminated.

Position	Case – 1	Case – 2(a)	Case – 5	Case – 6	Case – 2(b)
Boxes	Boxes	Boxes	Boxes	Boxes	
7	Kiwis	Grapes	Apples	Blueberries	Grapes
6		Blueberries	Blueberries		Blueberries
5	Apples	Apples	Grapes	Apples	Apples
4	Blueberries	Oranges		Pomegranates	
3	Grapes	Pomegranates	Pomegranates	Grapes	Pomegranates
2	Oranges		Oranges	Oranges	Oranges
1	Pomegranates	Kiwis	Kiwis	Kiwis	Kiwis

6) The box which contains Blueberries placed below the box of Grapes. So, case 1, case 5, case 6 are eliminated. Since box which contain Banana placed above the box of Pomegranates so case 2(a) is eliminated. Hence, the final arrangement is as follows

Position	Boxes
7	Grapes
6	Blueberries
5	Apples
4	Bananas
3	Pomegranates
2	Oranges
1	Kiwis

Hence, the box of Oranges placed at top position.

Q85. Answer: (c) Three

1) The box which contains Kiwis placed either on top or on bottom.

2) Less than three boxes placed above the box of Apples.

3) Only one box placed between boxes of Grapes and Apples.

Position	Case – 1	Case – 2	Case – 3	Case – 4	Case – 5	Case – 6
Boxes	Boxes	Boxes	Boxes	Boxes	Boxes	
7	Kiwis	Grapes	Kiwis		Apples	
6			Apples	Apples		
5	Apples	Apples			Grapes	Apples
4			Grapes	Grapes		

YourMockTest.com — Free Study Material

3	Grapes					Grapes
2						
1		Kiwis		Kiwis	Kiwis	Kiwis

4) The box which contains Blueberries placed three boxes above the box of Pomegranates, which is below the box of Bananas.

5) The box which contains Oranges placed on even position below the sixth position. Since, if we place Oranges at second position in case 3 and case 4 which can not satisfy the fourth condition. So, case 4 and case 3 are eliminated.

Position	Case – 1	Case – 2(a)	Case – 5	Case – 6	Case – 2(b)
Boxes	Boxes	Boxes	Boxes	Boxes	
7	Kiwis	Grapes	Apples	Blueberries	Grapes
6		Blueberries	Blueberries		Blueberries
5	Apples	Apples	Grapes	Apples	Apples
4	Blueberries	Oranges		Pomegranates	
3	Grapes	Pomegranates	Pomegranates	Grapes	Pomegranates
2	Oranges		Oranges	Oranges	Oranges
1	Pomegranates	Kiwis	Kiwis	Kiwis	Kiwis

6) The box which contains Blueberries placed below the box of Grapes. So, case 1, case 5, case 6 are eliminated. Since box which contain Banana placed above the box of Pomegranates so case 2(a) is eliminated. Hence, the final arrangement is as follows

Position	Boxes
7	Grapes
6	Blueberries
5	Apples
4	Bananas
3	Pomegranates
2	Oranges
1	Kiwis

Hence, Three boxes are placed between boxes of Oranges and Blueberries.

Q86. Answer: (b) Apples Box

1) The box which contains Kiwis placed either on top or on bottom.

2) Less than three boxes placed above the box of Apples.

3) Only one box placed between boxes of Grapes and Apples.

Position	Case – 1	Case – 2	Case – 3	Case – 4	Case – 5	Case – 6
Boxes	Boxes	Boxes	Boxes	Boxes	Boxes	
7	Kiwis	Grapes	Kiwis		Apples	
6			Apples	Apples		
5	Apples	Apples			Grapes	Apples
4			Grapes	Grapes		
3	Grapes					Grapes
2						
1		Kiwis		Kiwis	Kiwis	Kiwis

4) The box which contains Blueberries placed three boxes above the box of Pomegranates, which is below the box of Bananas.

5) The box which contains Oranges placed on even position below the sixth position. Since, if we place Oranges at second position in case 3 and case 4 which can not satisfy the fourth condition. So, case 4 and case 3 are eliminated.

Position	Case – 1	Case – 2(a)	Case – 5	Case – 6	Case – 2(b)
Boxes	Boxes	Boxes	Boxes	Boxes	
7	Kiwis	Grapes	Apples	Blueberries	Grapes
6		Blueberries	Blueberries		Blueberries
5	Apples	Apples	Grapes	Apples	Apples
4	Blueberries	Oranges		Pomegranates	
3	Grapes	Pomegranates	Pomegranates	Grapes	Pomegranates
2	Oranges		Oranges	Oranges	Oranges
1	Pomegranates	Kiwis	Kiwis	Kiwis	Kiwis

6) The box which contains Blueberries placed below the box of Grapes. So, case 1, case 5, case 6 are eliminated. Since box which contain Banana placed above the box of Pomegranates so case 2(a) is eliminated. Hence, the final arrangement is as follows

Position	Boxes
7	Grapes
6	Blueberries
5	Apples
4	Bananas
3	Pomegranates
2	Oranges
1	Kiwis

Hence, the box of Apples placed immediately above the box of Bananas.

Q87. Answer: (b) Three

1) The box which contains Kiwis placed either on top or on bottom.

2) Less than three boxes placed above the box of Apples.

3) Only one box placed between boxes of Grapes and Apples.

Position	Case – 1	Case – 2	Case – 3	Case – 4	Case – 5	Case – 6
Boxes	Boxes	Boxes	Boxes	Boxes	Boxes	
7	Kiwis	Grapes	Kiwis		Apples	
6			Apples	Apples		
5	Apples	Apples			Grapes	Apples
4			Grapes	Grapes		
3	Grapes					Grapes
2						
1		Kiwis		Kiwis	Kiwis	Kiwis

4) The box which contains Blueberries placed three boxes above the box of Pomegranates, which is below the box of Bananas.

5) The box which contains Oranges placed on even position below the sixth position. Since, if we place Oranges at second position in case 3 and case 4 which can not satisfy the fourth condition. So, case 4 and case 3 are eliminated.

Position	Case – 1	Case – 2(a)	Case – 5	Case – 6	Case – 2(b)
Boxes	Boxes	Boxes	Boxes	Boxes	

YourMockTest.com — Free Study Material

7	Kiwis	Grapes	Apples	Blueberries	Grapes
6		Blueberries	Blueberries		Blueberries
5	Apples	Apples	Grapes	Apples	Apples
4	Blueberries	Oranges		Pomegranates	
3	Grapes	Pomegranates	Pomegranates	Grapes	Pomegranates
2	Oranges		Oranges	Oranges	Oranges
1	Pomegranates	Kiwis	Kiwis	Kiwis	Kiwis

6) The box which contains Blueberries placed below the box of Grapes. So, case 1, case 5, case 6 are eliminated. Since box which contain Banana placed above the box of Pomegranates so case 2(a) is eliminated. Hence, the final arrangement is as follows

Position	Boxes
7	Grapes
6	Blueberries
5	Apples
4	Bananas
3	Pomegranates
2	Oranges
1	Kiwis

Since, if box of Kiwis change its position with box of Banana then three boxes placed below it.

Q88. Answer: (b) Pomegranates

1) The box which contains Kiwis placed either on top or on bottom.

2) Less than three boxes placed above the box of Apples.

3) Only one box placed between boxes of Grapes and Apples.

Position	Case – 1	Case – 2	Case – 3	Case – 4	Case – 5	Case – 6
Boxes	Boxes	Boxes	Boxes	Boxes	Boxes	
7	Kiwis	Grapes	Kiwis		Apples	
6			Apples	Apples		
5	Apples	Apples			Grapes	Apples
4			Grapes	Grapes		
3	Grapes					Grapes
2						
1		Kiwis		Kiwis	Kiwis	Kiwis

4) The box which contains Blueberries placed three boxes above the box of Pomegranates, which is below the box of Bananas.

5) The box which contains Oranges placed on even position below the sixth position. Since, if we place Oranges at second position in case 3 and case 4 which can not satisfy the fourth condition. So, case 4 and case 3 are eliminated.

Position	Case – 1	Case – 2(a)	Case – 5	Case – 6	Case – 2(b)
Boxes	Boxes	Boxes	Boxes	Boxes	
7	Kiwis	Grapes	Apples	Blueberries	Grapes
6		Blueberries	Blueberries		Blueberries
5	Apples	Apples	Grapes	Apples	Apples

YourMockTest.com — Free Study Material

4	Blueberries	Oranges		Pomegranates	
3	Grapes	Pomegranates	Pomegranates	Grapes	Pomegranates
2	Oranges		Oranges	Oranges	Oranges
1	Pomegranates	Kiwis	Kiwis	Kiwis	Kiwis

6) The box which contains Blueberries placed below the box of Grapes. So, case 1, case 5, case 6 are eliminated. Since box which contain Banana placed above the box of Pomegranates so case 2(a) is eliminated. Hence, the final arrangement is as follows

Position	Boxes
7	Grapes
6	Blueberries
5	Apples
4	Bananas
3	Pomegranates
2	Oranges
1	Kiwis

Since, only two boxes placed above the box of Apples and two boxes placed below the box of Pomegranates,

Therefore, correct answer is Pomegranates.

Q89. Answer: (d) Four

Forward Pairs - NS, IN

Backward Pairs - IM, NO

Thus, there are four such pairs of letters in the word “TRANSMISSION” which have as many letters between them as in the English alphabetical series (both in forward and backward directions).

Hence, the correct answer is Four.

Q90. Answer: (e) E likes Green colour.

Here, Seven persons are A, E, F, L, M, P and R

1) Only three person lives between R and F, who doesn’t lives on top floor.

2) The person who likes Pink colour lives on an odd number floor but neither on top nor on bottom.

3) E lives three places below F.

4) As many persons lives above R as many persons lives below F.

Floor	Case – 1	Case – 2		
Person	Colour	Person	Colour	
7				
6	F		F	
5		Pink		
4				
3	E		E	Pink
2	R		R	
1				

5) The person who likes Red colour lives above the floor of who likes Pink colour.

6) R and P likes Red colour and Blue colour but not in the same order. Since, from condition 4 we can conclude R likes Blue colour and P likes Red colour.

Floor	Case – 1	Case – 2		

YourMockTest.com — Free Study Material

Person	Colour	Person	Colour	
7			P	Red
6	F		F	
5				Pink
4				
3	E	Pink	E	
2	R	Blue	R	Blue
1				

7) The person who likes White colour lives immediately either above or below R.

8) P lives below A but not immediately below him. So, case 2 is eliminated.

9) The number of persons lives above M is two more than that of lives below L. So, M lives on floor 1 and L lives on floor 5.

10) A doesn't like Green colour. Since, A lives above P so A lives on 7th floor and P lives on 4th floor.

11) L likes Yellow colour. Hence, the final arrangement is as follows

Floor	Person	Colour
7	A	Violet
6	F	Green
5	L	Yellow
4	P	Red
3	E	Pink
2	R	Blue
1	M	White

Hence, all statements except statement E likes Green colour are correct.

Q91. Answer: (e) More than three

Here, Seven persons are A, E, F, L, M, P and R

1) Only three person lives between R and F, who doesn't lives on top floor.

2) The person who likes Pink colour lives on an odd number floor but neither on top nor on bottom.

3) E lives three places below F.

4) As many persons lives above R as many persons lives below F.

Floor	Case – 1	Case – 2		
Person	Colour	Person	Colour	
7				
6	F		F	
5		Pink		
4				
3	E		E	Pink
2	R		R	
1				

5) The person who likes Red colour lives above the floor of who likes Pink colour.

6) R and P likes Red colour and Blue colour but not in the same order. Since, from condition 4 we can conclude R likes Blue colour and P likes Red colour.

Floor	Case – 1	Case – 2		

Person	Colour	Person	Colour	
7			P	Red
6	F		F	
5				Pink
4				
3	E	Pink	E	
2	R	Blue	R	Blue
1				

7) The person who likes White colour lives immediately either above or below R.

8) P lives below A but not immediately below him. So, case 2 is eliminated.

9) The number of persons lives above M is two more than that of lives below L. So, M lives on floor 1 and L lives on floor 5.

10) A doesn't like Green colour. Since, A lives above P so A lives on 7th floor and P lives on 4th floor.

11) L likes Yellow colour. Hence, the final arrangement is as follows

Floor	Person	Colour
7	A	Violet
6	F	Green
5	L	Yellow
4	P	Red
3	E	Pink
2	R	Blue
1	M	White

Since A lives on topmost floor whereas M lives on bottom most floor therefore, more than three persons live between them.

Q92. Answer: (d) F

Here, Seven friends are A, E, F, L, M, P and R

1) Only three person lives between R and F, who doesn't lives on top floor.

2) The person who likes Pink colour lives on an odd number floor but neither on top nor on bottom.

3) E lives three places below F.

4) As many persons lives above R as many persons lives below F.

Floor	Case – 1	Case – 2		
Person	Colour	Person	Colour	
7				
6	F		F	
5		Pink		
4				
3	E		E	Pink
2	R		R	
1				

5) The person who likes Red colour lives above the floor of who likes Pink colour.

6) R and P likes Red colour and Blue colour but not in the same order. Since, from condition 4 we can conclude R likes Blue colour and P likes Red colour.

Floor	Case – 1	Case – 2		

Person	Colour	Person	Colour	
7			P	Red
6	F		F	
5				Pink
4				
3	E	Pink	E	
2	R	Blue	R	Blue
1				

7) The person who likes White colour lives immediately either above or below R.

8) P lives below A but not immediately below him. So, case 2 is eliminated.

9) The number of persons lives above M is two more than that of lives below L. So, M lives on floor 1 and L lives on floor 5.

10) A doesn't like Green colour. Since, A lives above P so A lives on 7th floor and P lives on 4th floor.

11) L likes Yellow colour. Hence, the final arrangement is as follows

Floor	Person	Colour
7	A	Violet
6	F	Green
5	L	Yellow
4	P	Red
3	E	Pink
2	R	Blue
1	M	White

Hence, all except F lives on odd number floor. So, correct answer is F.

Q93. Answer: (c) M

Here, Seven friends are A, E, F, L, M, P and R

1) Only three person lives between R and F, who doesn't lives on top floor.

2) The person who likes Pink colour lives on an odd number floor but neither on top nor on bottom.

3) E lives three places below F.

4) As many persons lives above R as many persons lives below F.

Floor	Case – 1	Case – 2		
Person	Colour	Person	Colour	
7				
6	F		F	
5		Pink		
4				
3	E		E	Pink
2	R		R	
1				

5) The person who likes Red colour lives above the floor of who likes Pink colour.

6) R and P likes Red colour and Blue colour but not in the same order. Since, from condition 4 we can conclude R likes Blue colour and P likes Red colour.

Floor	Case – 1	Case – 2		

Person	Colour	Person	Colour	
7			P	Red
6	F		F	
5				Pink
4				
3	E	Pink	E	
2	R	Blue	R	Blue
1				

7) The person who likes White colour lives immediately either above or below R.

8) P lives below A but not immediately below him. So, case 2 is eliminated.

9) The number of persons lives above M is two more than that of lives below L. So, M lives on floor 1 and L lives on floor 5.

10) A doesn't like Green colour. Since, A lives above P so A lives on 7th floor and P lives on 4th floor.

11) L likes Yellow colour. Hence, the final arrangement is as follows

Floor	Person	Colour
7	A	Violet
6	F	Green
5	L	Yellow
4	P	Red
3	E	Pink
2	R	Blue
1	M	White

Hence, M likes White colour.

Q94. Answer: (b) A

Here, Seven friends are A, E, F, L, M, P and R

1) Only three person lives between R and F, who doesn't lives on top floor.

2) The person who likes Pink colour lives on an odd number floor but neither on top nor on bottom.

3) E lives three places below F.

4) As many person lives above R as many persons lives below F.

Floor	Case – 1	Case – 2		
Person	Colour	Person	Colour	
7				
6	F		F	
5		Pink		
4				
3	E		E	Pink
2	R		R	
1				

5) The person who likes Red colour lives above the floor of who likes Pink colour.

6) R and P likes Red colour and Blue colour but not in the same order. Since, from condition 4 we can conclude R likes Blue colour and P likes Red colour.

Floor	Case – 1	Case – 2		

Person	Colour	Person	Colour	
7			P	Red
6	F		F	
5				Pink
4				
3	E	Pink	E	
2	R	Blue	R	Blue
1				

7) The person who likes White colour lives immediately either above or below R.

8) P lives below A but not immediately below him. So, case 2 is eliminated.

9) The number of persons lives above M is two more than that of lives below L. So, M lives on floor 1 and L lives on floor 5.

10) A doesn't like Green colour. Since, A lives above P so A lives on 7th floor and P lives on 4th floor.

11) L likes Yellow colour. Hence, the final arrangement is as follows

Floor	Person	Colour
7	A	Violet
6	F	Green
5	L	Yellow
4	P	Red
3	E	Pink
2	R	Blue
1	M	White

Hence, A lives on topmost floor.

Q95. Answer: (c) SJL

Option1:

Option2:

Option3:

Option4:

Thus, clearly SJL is different of all the given options.

Q96. Answer: (d) All of these

1) R and X lives in different cities but not in Goa.

2) T lives with only one other person.

3) Persons living in Bihar is one more than persons living in Goa. Since if we place only two persons in Goa which means in Bihar three persons live which means in Sikkim we have to place six persons which contradicts the given condition if we place three person in Goa that means in Bihar four persons live which leads to four persons in Sikkim again it contradicts the condition T lives with only one other person. So in Sikkim only two person lives, Bihar five person lives and Goa four person lives.

State	Case – 1	Case – 2
Person	Person	
Sikkim	X, T	R, T
Goa		
Bihar	R	X

4) V lives in a state having maximum persons live which means in Bihar.

5) B lives with V. So, B lives in Bihar.

6) Either G or B lives in Goa or Sikkim. Since B lives in Bihar and there is no place for any person in Sikkim so G lives in Goa.

YourMockTest.com — Free Study Material

7) I lives in Bihar.

State	Case – 1	Case – 2
Person	Person	
Sikkim	X, T	R, T
Goa	G	G
Bihar	R, V, B, I	X, V, B, I

8) S lives in the state which have even number of persons live. The only possibility is S lives in Goa.

9) G doesn't live with Z. Hence, Z lives in Bihar.

10) Neither R nor N lives in Bihar. So, case 1 is eliminated and N lives in Goa. The only person left is K who lives in Goa. Hence, the final arrangement is as follows

State	Person
Sikkim	R, T
Goa	G, N, S, K
Bihar	X, V, B, Z, I

Since, T lives in Sikkim so statement A is incorrect.

S lives in Goa and R lives in Sikkim so statement B is incorrect.

K lives in Goa but I lives in Bihar so statement C is incorrect.

Therefore, correct answer is all of these.

Q97. Answer: (e) All of these

1) R and X lives in different cities but not in Goa.

2) T lives with only one other person.

3) Persons living in Bihar is one more than persons living in Goa. Since if we place only two persons in Goa which means in Bihar three persons live which means in Sikkim we have to place six persons which contradicts the given condition if we place three person in Goa that means in Bihar four persons live which leads to four persons in Sikkim again it contradicts the condition T lives with only one other person. So in Sikkim only two person lives, Bihar five person lives and Goa four person lives.

State	Case – 1	Case – 2
Person	Person	
Sikkim	X, T	R, T
Goa		
Bihar	R	X

4) V lives in a state having maximum persons live which means in Bihar.

5) B lives with V. So, B lives in Bihar.

6) Either G or B lives in Goa or Sikkim. Since B lives in Bihar and there is no place for any person in Sikkim so G lives in Goa.

7) I lives in Bihar.

State	Case – 1	Case – 2
Person	Person	
Sikkim	X, T	R, T
Goa	G	G
Bihar	R, V, B, I	X, V, B, I

8) S lives in the state which have even number of persons live. The only possibility is S lives in Goa.

9) G doesn't live with Z. Hence, Z lives in Bihar.

10) Neither R nor N lives in Bihar. So, case 1 is eliminated and N lives in Goa. The only person left is K who lives in Goa. Hence, the final arrangement is as follows

State	Person

YourMockTest.com — Free Study Material

Sikkim	R, T
Goa	G, N, S, K
Bihar	X, V, B, Z, I

Hence, all the given statements are correct.

Q98. Answer: (d) S

1) R and X lives in different cities but not in Goa.

2) T lives with only one other person.

3) Persons living in Bihar is one more than persons living in Goa. Since if we place only two persons in Goa which means in Bihar three persons live which means in Sikkim we have to place six persons which contradicts the given condition if we place three person in Goa that means in Bihar four persons live which leads to four persons in Sikkim again it contradicts the condition T lives with only one other person. So in Sikkim only two person lives, Bihar five person lives and Goa four person lives.

State	Case – 1	Case – 2
Person	Person	
Sikkim	X, T	R, T
Goa		
Bihar	R	X

4) V lives in a state having maximum persons live which means in Bihar.

5) B lives with V. So, B lives in Bihar.

6) Either G or B lives in Goa or Sikkim. Since B lives in Bihar and there is no place for any person in Sikkim so G lives in Goa.

7) I lives in Bihar.

State	Case – 1	Case – 2
Person	Person	
Sikkim	X, T	R, T
Goa	G	G
Bihar	R, V, B, I	X, V, B, I

8) S lives in the state which have even number of persons live. The only possibility is S lives in Goa.

9) G doesn't live with Z. Hence, Z lives in Bihar.

10) Neither R nor N lives in Bihar. So, case 1 is eliminated and N lives in Goa. The only person left is K who lives in Goa. Hence, the final arrangement is as follows

State	Person
Sikkim	R, T
Goa	G, N, S, K
Bihar	X, V, B, Z, I

Hence, all except S lives in Bihar. So correct answer is S.

Q99. Answer: (a) R

1) R and X lives in different cities but not in Goa.

2) T lives with only one other person.

3) Persons living in Bihar is one more than persons living in Goa. Since if we place only two persons in Goa which means in Bihar three persons live which means in Sikkim we have to place six persons which contradicts the given condition if we place three person in Goa that means in Bihar four persons live which leads to four persons in Sikkim again it contradicts the condition T lives with only one other person. So in Sikkim only two person lives, Bihar five person lives and Goa four person lives.

State	Case – 1	Case – 2
Person	Person	

YourMockTest.com – Free Study Material

Sikkim	X, T	R, T
Goa		
Bihar	R	X

4) V lives in a state having maximum persons live which means in Bihar.

5) B lives with V. So, B lives in Bihar.

6) Either G or B lives in Goa or Sikkim. Since B lives in Bihar and there is no place for any person in Sikkim so G lives in Goa.

7) I lives in Bihar.

State	Case – 1	Case – 2
Person	Person	
Sikkim	X, T	R, T
Goa	G	G
Bihar	R, V, B, I	X, V, B, I

8) S lives in the state which have even number of persons live. The only possibility is S lives in Goa.

9) G doesn't live with Z. Hence, Z lives in Bihar.

10) Neither R nor N lives in Bihar. So, case 1 is eliminated and N lives in Goa. The only person left is K who lives in Goa. Hence, the final arrangement is as follows

State	Person
Sikkim	R, T
Goa	G, N, S, K
Bihar	X, V, B, Z, I

Since T and R both lives in Sikkim. Therefore, correct answer is R.

Q100. Answer: (b) Sikkim

1) R and X lives in different cities but not in Goa.

2) T lives with only one other person.

3) Persons living in Bihar is one more than persons living in Goa. Since if we place only two persons in Goa which means in Bihar three persons live which means in Sikkim we have to place six persons which contradicts the given condition if we place three person in Goa that means in Bihar four persons live which leads to four persons in Sikkim again it contradicts the condition T lives with only one other person. So in Sikkim only two person lives, Bihar five person lives and Goa four person lives.

State	Case – 1	Case – 2
Person	Person	
Sikkim	X, T	R, T
Goa		
Bihar	R	X

4) V lives in a state having maximum persons live which means in Bihar.

5) B lives with V. So, B lives in Bihar.

6) Either G or B lives in Goa or Sikkim. Since B lives in Bihar and there is no place for any person in Sikkim so G lives in Goa.

7) I lives in Bihar.

State	Case – 1	Case – 2
Person	Person	
Sikkim	X, T	R, T
Goa	G	G
Bihar	R, V, B, I	X, V, B, I

8) S lives in the state which have even number of persons live. The only possibility is S lives in Goa.

YourMockTest.com — Free Study Material

9) G doesn't live with Z. Hence, Z lives in Bihar.

10) Neither R nor N lives in Bihar. So, case 1 is eliminated and N lives in Goa. The only person left is K who lives in Goa. Hence, the final arrangement is as follows

State	Person
Sikkim	R, T
Goa	G, N, S, K
Bihar	X, V, B, Z, I

Since, Sikkim has only person and rest states have more than two person to live in.

Hence, Sikkim has lowest density.

More previous year papers and mock tests: **www.yourmocktest.com/pyq**

YourMockTest.com — Free Study Material