SBI PO Prelims Memory Based Paper (Held On: 6 November 2023 Shift 2) (Previous Year Paper)

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

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ENGLISH LANGUAGE

Directions

Read the passage given below and then answer the questions given below the passage. Some words may be highlighted for your attention. Pay careful attention.

Mumbai, often referred to as the financial capital of India, is not only known for its bustling markets, impressive skyline, and vibrant culture but also for its remarkably complex and extensive railway network. The Mumbai Railway, or Mumbai Suburban Railway, forms the lifeline of the city, ferrying millions of commuters daily across its sprawling length and breadth. This suburban rail system is one of the oldest and busiest railway networks in Asia and plays a crucial role in the functioning of Mumbai. The Mumbai Suburban Railway is operated by Indian Railways' two divisions: the Western Railways (WR) and the Central Railways (CR). With a history dating back to 1853, when the first train ran from Bori Bunder (now Chhatrapati Shivaji Maharaj Terminus) to Thane, the railway has grown exponentially. Today, it serves not only as a mode of transport but also as a cultural microcosm, reflecting the diverse population of Mumbai. The network covers a substantial distance with its three main lines: the Western Line, Central Line, and Harbour Line. The Western Line runs parallel to the west coast of Mumbai, from Churchgate to Dahanu Road. The Central Line stretches from Chhatrapati Shivaji Maharaj Terminus to Kasara and Khopoli, while the Harbour Line branches off from the Central Line and extends to both Panvel and Goregaon, covering Navi Mumbai in the process. The suburban trains, often referred to as "locals," are the backbone of daily travel for more than 7.5 million commuters. The trains are designed in a way to handle the city's high traffic demands, with runs spaced as little as three minutes apart during peak hours. Despite being crowded, they remain the fastest and most efficient means of transport within the city. Each train comprises a series of ‘coaches’ that include general, first-class, women's, senior citizens', and disabled coaches to cater to different segments of the population. One of the most significant developments in recent years has been the introduction of the Mumbai Metro and the Monorail, designed to complement the existing railway system and ease congestion. However, the suburban railway remains unmatched in its reach and utility. The local trains have seen several upgrades over the years, including the introduction of new, more comfortable and faster trains. Safety remains a critical concern for the Mumbai Railway, given the massive volume of passengers. Efforts have been made continuously to improve safety standards, including the introduction of advanced signalling systems, improved station facilities, and increased security measures. Trespassing on tracks, overcrowding, and accidents at level crossings remain challenges that the authorities strive to manage. Mumbai Railway has not only economic significance but also cultural importance. The daily commute on these trains is a unique experience, with vendors selling everything from snacks to electronics on board, and performers entertaining evening commuters. It is a space where people from all walks of life come together, creating a unique sense of community. The stations themselves, many of which are historic, serve as landmarks and are an integral part of the city's identity. Among the most famous of these is the Chhatrapati Shivaji Maharaj Terminus, a UNESCO World Heritage Site known for its Victorian Gothic architecture. Built in 1887, the station is a bustling terminus serving both long-distance and suburban trains, symbolizing the grandeur and heritage of Mumbai. In conclusion, the Mumbai Suburban Railway is not just a transit system but a dynamic entity that reflects the spirit of Mumbai. It plays a fundamental role in the daily lives of its residents, shaping the city's rhythm and contributing to its identity.

Q1. According to the passage, which are the two divisions that operate the Mumbai Suburban Railway?

(a) Northern Railways and Western Railways
(b) Central Railways and Eastern Railways
(c) Western Railways and Southern Railways
(d) Central Railways and Western Railways
(e) Southern Railways and Eastern Railways

Q2. Which of the following is not true according to the passage?

(a) The first train in Mumbai ran from Chhatrapati Shivaji Maharaj Terminus to Kasara
(b) The Mumbai Suburban Railway serves more than 7.5 million commuters daily.
(c) The Harbour Line branches off from the Central Line and covers Navi Mumbai.
(d) The network consists of the Western Line, Central Line, and Harbour Line.
(e) The Chhatrapati Shivaji Maharaj Terminus is a UNESCO World Heritage Site.

Q3. It can be inferred from the passage that the daily commute on the Mumbai Suburban Railway:

(a) Is primarily used by tourists.
(b) Is disliked by the majority of commuters.
(c) Reflects the cultural diversity of Mumbai.
(d) Has no specific facilities for different segments of the population.
(e) Is less crowded during peak hours

Q4. Which of the following best states the central idea of the passage?

(a) The history and current significance of the Mumbai Suburban Railway
(b) The introduction of the Mumbai Metro and the Monorail.
(c) The architectural heritage of Chhatrapati Shivaji Maharaj Terminus.
(d) The financial markets and skyline of Mumbai.
(e) The role of vendors and performers on Mumbai suburban trains.

Q5. According to the passage, which of the given statements is/are correct?

A) The Mumbai Suburban Railway played a role in the establishment of Mumbai's impressive skyline.
B) Efforts have been made to improve safety standards on the railway.
C) The Western Line runs from Churchgate to Dahanu Road.

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

Q6. According to the passage, which of the following statements is incorrect?

A) The Harbour Line does not extend to Navi Mumbai.
B) The Mumbai Metro and Monorail are designed to complement the suburban railway.
C) Chhatrapati Shivaji Maharaj Terminus was built in 1887.

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

Q7. Which of the following words is similar in meaning to "bustling" as used in the context of the passage?

(a) Quiet
(b) Busy
(c) Uninhabited
(d) Tranquil
(e) Dull

Q8. Which of the following words is opposite in meaning to "substantial" as used in the context of the passage?

(a) Ample
(b) Significant
(c) Insignificant
(d) Considerable
(e) Extensive

Q9. Directions: Each of the following sentences has a blank space and five words are given below. Click on the word you consider the most APPROPRIATE to fit the blank.

The effects of the _____ from the angry citizens left many people arrested for disturbing the peace.

(a) Contentment
(b) Ecstasy
(c) Elation
(d) Ruckus
(e) Gratification

Q10. Directions: Each of the following sentences has a blank space and five words are given below. Click on the word you consider the most APPROPRIATE to fit the blank.

The public criticized the basketball team owner after he made _____ remarks about minorities.

(a) Mandatory
(b) Derogatory
(c) Victory
(d) Possession
(e) Advisory

Q11. Directions: Select the most appropriate word to fill in the blank.

The government's economic policies can be seen as an _____ to attract foreign investments.

(a) bolster
(b) aggression
(c) deception
(d) abrogation
(e) overture

Q12. Directions: Select the most appropriate word to fill in the blank.

The politician's controversial statement _____ public opinion and sparked protests.

(a) suppressed
(b) angered
(c) engraved
(d) inflamed
(e) settled

Q13. 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 ago(A) years few(B) it was working(C) to operate on a patient whose impossible(D) was not heart(E) properly.

(a) ABCDE
(b) ADCEB
(c) BADEC
(d) BEDAC
(e) No rearrangement

Q14. 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.

Drama(A) the actually(B) has always Indian(C) the life of Actors(D) people, as it deals with legends of been(E) and politicians.

(a) ABCDE
(b) CDEAB
(c) ACBDE

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(d) BAECD
(e) No rearrangement

Q15. 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.

According to each(A), all Gandhiji(B) are religions(C) true and worthy(D) scripture is equally(E) of respect.

(a) BCEAD
(b) ABDCE
(c) ACBDE
(d) BCDEA
(e) No rearrangement

Q16. 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.

Solve(A) officers are law enforcement professionals police(B) job is to rules(C) citizens, whose(D) crimes, and assure that protect(E) and regulations are followed.

(a) ABCDE
(b) ACDEB
(c) BDACE
(d) BDEAC
(e) No rearrangement

Directions

Directions: The following sentences form a paragraph. The rest of the sentences are marked as A, B, C, D, E, and F. Sentence 'D' is in the correct place. The rest of the sentences are not given in their proper order. Read the sentences and answer the following questions.

A. The unique construction features a helipad and has a maximum capacity of over 500 residents.

B. The project was completed primarily by the South Korean construction company Hyundai Engineering & Construction and High-Tech Industrial Development.

C. Despite being renowned for its elegance and luxury, the Tower had a bleak history and was completed after 11 years of persistent efforts.

D. The Lotte World Tower situated in Seoul, South Korea, is one of the tallest buildings in the world with an impressive height of 1,819 feet.

E. The comprehensive Lotte World Tower complex includes retail outlets, offices, residences, a hotel, and a podium with the Lotte World Mall.

F. The Tower is a new symbol for the national pride of South Korea and its aspiration to be at the forefront of global trends in architecture and technology.

Q17. Which sentence should be the FIRST sentence in the paragraph?

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

Q18. Which sentence should be the SECOND sentence in the paragraph?

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

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Q19. Which sentence should be the THIRD sentence in the paragraph?

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

Q20. Which sentence should be the FIFTH sentence in the paragraph?

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

Q21. Which sentence should be the SIXTH sentence in the paragraph?

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

Q22. Directions: In the following question, some parts of the sentence may have an error. The error, if any, will be in one part of the sentence. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from errors, select 'No error' as your answer.

The southern state of Kerala (A)/ slow returns to normalcy, (B)/ days after devastating floods (C)/ claimed over 450 lives and caused massive destruction (D)/ No Error. (E)

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

Q23. Read the sentence given below to find out if it contains any error. The error, if any, will be in one part of the sentence. If the sentence is error free, select No error or option 5. Ignore error of punctuation if any.

Researchers have found a whale (A)/ species that typically migrates away from (B)/ solid sea ice each autumn and returns every (C)/ summer to feasting on tiny crustaceans. (D)/ No error (E)

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

Q24. Directions: The given sentence has been broken into four parts. The error, if any, will be in one part of the sentence. Select the option which contains the error-less combination. If all are correct, mark Option 5 as your answer.

With Casper and Glossier(A)/ venturing into new product(B/) ranges, their regular customers start loosing trust(C)/ in the companies and their products. (D)/ No error(E)

(a) ABD
(b) ACD
(c) ABC
(d) BCD
(e) All are correct

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Q25. Which of the following options should replace the underlined phrase to make the sentence grammatically correct? If the sentence is already correct, choose "No correction required."

The government has announced plans to launch a new initiative aimed at reducing plastic waste in the oceans.

(a) aimed to reduce
(b) aiming at reducing
(c) to aim reduce
(d) for reducing aims
(e) No correction required

Q26. Which of the following options should replace the underlined phrase to make the sentence grammatically correct? If the sentence is already correct, choose "No correction required."

The company has decided to move its headquarters to a larger office space in the downtown area.

(a) moving to a larger office space
(b) to move its headquarters into a larger office space
(c) for moving headquarters into a larger office space
(d) move its headquarters to larger office space
(e) No correction required

Q27. Which of the following options should replace the underlined phrase to make the sentence grammatically correct? If the sentence is already correct, choose "No correction required."

The teacher asked her students to read the novel over the weekend and to be prepare to discuss it in class on Monday.

(a) to prepare for discussing it in class on Monday
(b) prepared discussing on Monday
(c) to be preparing discussing on Monday
(d) to be prepared to discuss it in class on Monday
(e) No correction required

Q28. Directions: Choose the combination that creates a grammatically and contextually coherent sentence.

A. The project encapsulated their collective efforts,	**i. despite**	**D. the WHO African region collected only 5% of global donations.**
B. The results of the experiment had been inconclusive,	ii. moreover,	E. making it unsuitable for beginners.
C. Comprising 14% of the global population,	iii. conversely,	F. they embarked on the adventurous hike into the remote, snow-covered mountains.

(a) A-ii-D
(b) B-iii-D
(c) C-i-D
(d) C-i-E
(e) A-iii-F

Q29. Directions: Choose the combination that creates a grammatically and contextually coherent sentence.

A. The findings supported the hypothesis;	**i. meanwhile,**	**D. failing to provide the long-term happiness humans seek from experiences.**
B. Phones stimulate our dopamine circuit,	ii. thus,	E. her husband set the table for the family.
C. She implemented a new strategy;	iii. albeit	F. they persisted in their plan to explore the mountains.

(a) A-ii-E
(b) B-ii-D

(c) B-iii-D
(d) C-i-F
(e) A-iii-F

Q30. Directions: Choose the combination that creates a grammatically and contextually coherent sentence.

A. They departed from the quaint village,	**i. notwithstanding**	**D. he reached the picturesque village nestled in the valley.**
B. The project's success relied heavily on teamwork,	ii. be that as it may,	E. safeguarding the health of the nation.
C. Winning the war against NCDs is vital for individual well-being,	iii. as well as	F. he faced various health issues later in life.

(a) C-iii-E
(b) A-ii-D
(c) B-i-D
(d) A-iii-F
(e) B-ii-F

QUANTITATIVE APTITUDE

Directions

Directions: The given caselet shows the number of chairs and tables sold in the four different shops such as A, B, C and D.

Number of tables sold in shop A is x and the number of chairs sold in shop A is y. Number of tables sold in shop B is (x - 20). Number of chairs sold in shop A is 70% of the number of chairs sold in shop B. Number of tables sold in shop C is (x - 40). Number of tables sold in shop D is 60% of tables sold in shop A.Number of chairs sold in shop C is 80% of chairs sold in shop B. Number of chairs sold in shop D is 75% of the chairs sold in shop C. Total tables sold in all the shops is 170 more than total chairs sold in all the shops

Note : x + y = 220

Q31. If the price of each table in shop A is Rs. a and the price of each chair is Rs. (a + 100) and the total revenue generated by selling all the chairs and tables in shop A is Rs. 73000. Find the value of a.

(a) 550
(b) 450
(c) 600
(d) 300
(e) 350

Q32. If 3/5th and 4/11 th of the tables sold in shop A and C respectively are at discount and 3/7 th and 1/2 of the chairs sold in shop A and C respectively are sold at the discount. Find the total number of chairs and tables sold at discount in shop A and C.

(a) 350
(b) 300
(c) 270
(d) 200
(e) 250

Q33. If the number of tables sold in shop D is increased by b% then the ratio between the number of tables and chairs sold in shop D is 2: 1. Then find the value of b

(a) 35%
(b) 20%
(c) 33.33%
(d) 25%
(e) 22%

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Q34. Number of tables sold in shop E is 25 more than the average number of tables sold in shop A and B. And the number of chairs sold in shop E is 35 more than the average number of chairs sold in shop A and D. Find the total number of tables and chairs sold in the shop E.

(a) 235
(b) 245
(c) 265
(d) 255
(e) 285

Q35. In the following number series, a wrong number is given. Find out the wrong number.

4, 6, 18, 110, 1296, 31104

(a) 31104
(b) 110
(c) 4
(d) 6
(e) 18

Q36. Find the wrong term in the following number series.

24, 26, 36, 62, 112, 196, 316

(a) 36
(b) 26
(c) 112
(d) 196
(e) 316

Q37. Find the wrong term in the following number series.

155, 298, 493, 748,1069, 1470

(a) 155
(b) 493
(c) 1069
(d) 748
(e) 1470

Q38. In each of the following number series, the wrong number is given, find out that number.

25, 200, 45, 320, 64, 512

(a) 200
(b) 45
(c) 64
(d) 512
(e) 320

Q39. In each of the following number series, the wrong number is given, find out that number.

119, 138, 195, 290, 432, 594

(a) 138
(b) 432
(c) 594
(d) 290
(e) 195

Q40. Two typists of varying skill can do a job in 18 minutes if they work together. If the first typist alone typed for 9 minutes and then the second typist alone typed for 18 minutes, they would be left with 1/3^(rd) of the entire work. How many minutes would it take for the faster typist to complete the typing job working alone?

(a) 37 minutes
(b) 27 minutes

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(c) 47 minutes
(d) 17 minutes
(e) None of these

Q41. In a class of N students, 59% students passed in History, 72% students passed in Political Science and 35% students passed in both subjects. If 666 students passed in only Political Science, then, what is the value of N?
(a) 1600
(b) 1800
(c) 2000
(d) 2100
(e) None of these

Directions

Directions: The given table below show the number of students (males + females) participated exam and percentage of students out of total failed and number of males failed in exam in five different colleges.

Colleges	Number of students (Male + female)participated in exam	Ratio between number of males to females participated in exam	Percentage of students (male + female) failed out of total participated	Number of males failed out of total males participated
A	1100	7: 4	30%	210
B	900	2: 1	40%	240
C	1400	4: 3	50%	500
D	1400	17: 11	45%	255
E	1600	9: 7	60%	450

Number of students participated = Number of students failed + Number of students passed

Q42. Number of males who passed exam in college A is 3/7 are scored in distinction and 3/5 of the females who passed exam in college A are scored in distinction, then find the total number of students in college A passed in distinction.
(a) 374
(b) 322
(c) 378
(d) 344
(e) 369

Directions

Directions: The given table below show the number of students (males + females) participated exam and percentage of students out of total failed and number of males failed in exam in five different colleges.

Colleges	Number of students (Male + female)participated in exam	Ratio between number of males to females participated in exam	Percentage of students (male + female) failed out of total participated	Number of males failed out of total males participated
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C	1400	4: 3	50%	500
D	1400	17: 11	45%	255
E	1600	9: 7	60%	450

Number of students participated = Number of students failed + Number of students passed

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Q43. If the number of males and females failed in college B respectively are increased by 30% and 40% respectively. Find the total number of students who failed in college B is how much more or less than the number of students passed in the same college.

(a) 50
(b) 20
(c) 40
(d) 60
(e) 80

Q44. 3/5 of the number of males passed in college D and 4/5 of the number females passed in college D are approximately what percentage of the total number of students failed in the same college.

(a) 80%
(b) 72%
(c) 79%
(d) 65%
(e) 75%

Q45. Find the ratio between the number of males passed in college C and E to the number of females passed in the college C and E.

(a) 87: 90
(b) 75: 59
(c) 67: 61
(d) 75: 71
(e) 83: 77

Q46. Find the difference between the average number of males who failed in all the colleges and the average number of females who failed in all the colleges.

(a) 79
(b) 73
(c) 66
(d) 72
(e) 74

Q47. The average height of A, B, C and D is 40 inches. A new person E is also included in the group, then the average height of the group is increased by 1 inch. Again a new person F replaces A then the new average of five people becomes 42. Find the average height of B, C, D, F.

(a) 42.75
(b) 41.75
(c) 42.25
(d) 43.25
(e) 41.25

Q48. Ratio of alcohol and water in Y litres of mixture is 1 : 4. (2/3)^(rd) of the mixture is taken out and 250 ml of water is added to remaining mixture in such a way that the quantity of alcohol and water is final mixture become 4 : 19. Find the value of Y.

(a) 4 litres
(b) 3 litres
(c) 2 litres
(d) 5 litres
(e) 1 litre

Q49. What approximate value will come in place of the question mark '?' in the following question?

211.15 + 111.215 × 210.35 + 629.55 × 1.73 = ?

(a) 12345
(b) 23451

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(c) 12786
(d) 24781
(e) 24356

Q50. What approximate value should come in the place of question mark (?) in the following question?
121.98 – [70.98 + {4.14 – (4.98 – (22.98 – 21.12))}] = ?
(a) 40
(b) 50
(c) 30
(d) 60
(e) 20

Q51. What approximate value will come in place of question mark (?) in the following question?
(64.98% of 400.01 + 33.06 × 21.918 – 743.018) = ?
(a) 207
(b) 225
(c) 216
(d) 243
(e) 238

Q52. What approximate value should come in the place of question mark (?) in the following question?
49.9% of 499.9 × 19.9% of 99.9 ÷ ? = 49.9% of 1999.9
(a) 9
(b) 2
(c) 14
(d) 18
(e) 5

Q53. What approximate value should come in the place of question mark (?) in the following question?
34.98% of 799.99 + 64.95% of 199.98 = ? + 49.99% of 249.99
(a) 285
(b) 295
(c) 275
(d) 225
(e) 245

Q54. A boat goes from point A to B upstream and returns to A through the same path. If the time of journey from A to B is twice that of the time taken to travel from B to A, then the ratio of the speed of the boat in still water to the speed of the current is
(a) 2 : 1
(b) 4 : 3
(c) 3 : 2
(d) 5 : 4
(e) 3 : 1

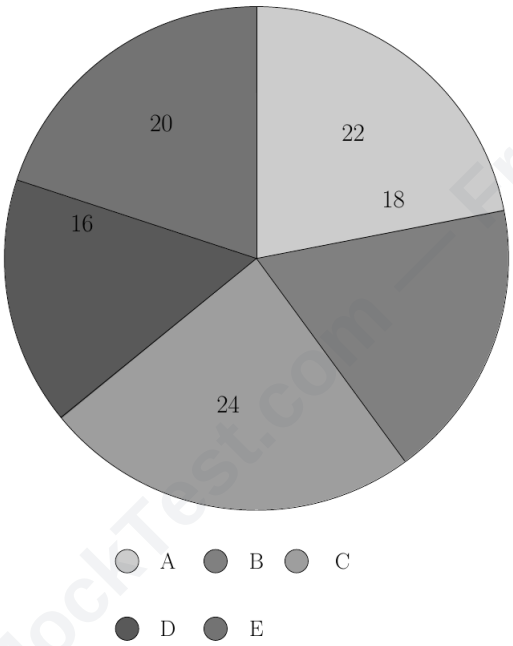
Q55. Vishnu has some amount of money and he invested the money in two schemes X and Y in the ratio of 2 : 5 for 2 years, scheme X offers 30% pa compound interest and scheme Y offers 15% pa Simple interest. The difference between the interest earned from both the schemes is Rs. 10800. How much was invested in scheme Y?
(a) 4,00,000
(b) 4,20,000
(c) 3,90,000
(d) 4,80,000
(e) 4,50,000

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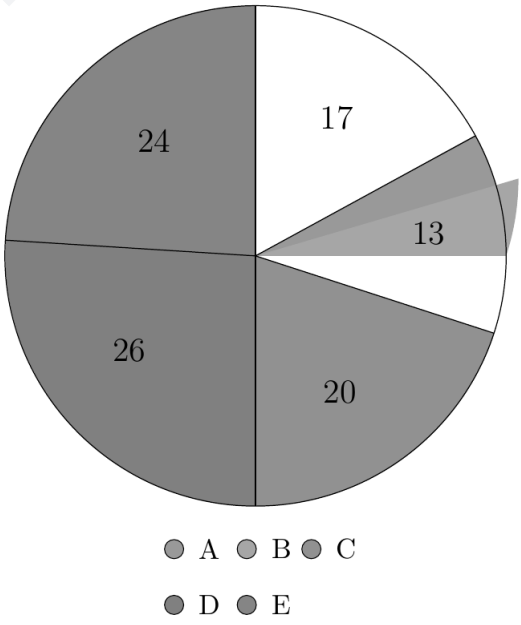
Directions

The below pie chart shows the percentage distribution of the number of metallic products and the number of non - metallic products manufactured by five different companies A, B, C, D and E.

Total number of metallic and non- metallic products manufactured = 3000



Number of metallic products manufactured = 1200



Q56. The number of metallic products manufactured by company C has increased by 50% and the number of the non metallic products made by company C has decreased by 20%.Find the total number of products manufactured by company C.

(a) 744
(b) 728
(c) 724
(d) 716
(e) 712

Q57. If the number of metallic products manufactured by the company D is increased by x and the number of non metallic products manufactured by the company D is decreased by x. Then the ratio between the number of metallic to non metallic products manufactured by company D is 2: 1. Find the value of x.

(a) 12
(b) 14
(c) 6
(d) 8
(e) 10

Q58. Number of metallic products manufactured by the companies A and B is what percentage of the total number of non metallic products made by all the companies A, B, C, D and E.

(a) 15%
(b) 30%
(c) 35%
(d) 20%
(e) 25%

Q59. If 1/3rd of metallic products manufactured by company A and 1/4 th of the non metallic products made by company A are defective and remaining are non - defective, Find the total number of non - defective products manufactured by company A.

(a) 468
(b) 478
(c) 472
(d) 470
(e) 454

Q60. Find the ratio between the number of metallic products manufactured by company D and E to the number of non metallic products manufactured by company D and E.

(a) 5: 6
(b) 2:1
(c) 5: 4
(d) 3: 2
(e) 3: 5

Q61. A, B and C are three candidates who have taken part in an election which have 25000 total voters in the voter list. 20% people do not vote and the ratio of casting votes among all three is 8 : 7 : 5 respectively. Find the winner of the election and difference between winner and second runner-up candidate in the election?

(a) A, 3050
(b) A, 3000
(c) A, 4000
(d) A, 3100
(e) None of the above

Q62. The area of a rectangle is 192 sq. cm. The length of a rectangle is two more than twice the radius of a circle. The circumference of a circle is 44 cm. The breadth of a rectangle is 8 more than the side of an Equilateral triangle. Find the perimeter of an Equilateral triangle.

(a) 12 cm
(b) 20 cm
(c) 16 cm
(d) 28 cm
(e) 24 cm

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Q63. If x litres milk and 9 litres honey is added in a mixture of milk and honey the ratio of milk and honey in the mixture becomes 7 : 5. Find the value of x.

Statement I: Resultant quantity of honey in the mixture is 45 litres.

Statement II: Ratio of milk and honey initially was 5 : 4.

(a) Statement II alone is sufficient to answer the question.
(b) Statements I and II together are required to answer the question.
(c) Either statement I or statement II alone is sufficient to answer the question.
(d) Statement I alone is sufficient to answer the question.
(e) Both Statements I and II together are not sufficient to answer the question.

Q64. Find the total population of town A.

Statement I: Number of males in town B is 11520 which is 80% of the number of females in town A. There are 4880 more males in town A as compared to town B.

Statement II: The ratio of number of males and females in town A is 41 : 36 and difference of number of males and females is 2000.

(a) Both Statements I and II together are not sufficient to answer the question.
(b) Statement II alone is sufficient to answer the question.
(c) Statements I and II together are required to answer the question.
(d) Either statement I or statement II alone is sufficient to answer the question.
(e) Statement I alone is sufficient to answer the question.

Q65. What is the total surface area of the cuboid?

Statement I: The volume of the cuboid is 5184 cm^3 and the ratio of the length, breadth and height of the cuboid is 3 : 4 : 2.

Statement II: Total surface area of the upper and lower faces of the cuboid is 864 cm^2 and the height of the cuboid is 12 cm.

(a) Statement II alone is sufficient to answer the question.
(b) Either statement I or statement II alone is sufficient to answer the question.
(c) Statement I alone is sufficient to answer the question.
(d) Statements I and II together are required to answer the question.
(e) Both Statements I and II together are not sufficient to answer the question.

REASONING ABILITY

Directions

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

Six persons Avyan, Kelvin, Prince, Jubal, Tejas, and Vyas have different designations, i.e. General Manager (GM), Deputy General Manager (DGM), Manager, Assistant Manager (AM), Probationary Officer (PO), Clerk in a company. The order of seniority is the same as given above i.e. GM is the senior-most designation and Clerk is the junior-most designation. Every person likes different sports Archery, Fencing, Hiking, Polo, Surfing, and Rugby. The one who likes Hiking is not the senior most person but two designations senior to Tejas. Vyas is junior to Tejas. The one who likes Fencing is just senior to Avyan. Jubal, who likes Polo is junior to the one who likes Surfing. Jubal is not at the Manager designation. The one who likes Hiking is two designations senior to the one who likes Archery. The one who likes Rugby is not a Manager. Kelvin is just junior to Avyan but does not like Surfing.

Q66. Who is immediate senior to the person who likes Archery?

(a) the one who is at General Manager designation
(b) the one who likes Hiking
(c) the one who is Manager
(d) the one who likes Polo
(e) the one who likes Rugby

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Q67. Which of the following statements is/are true?

I. Avyan likes Rugby.

II. Tejas is Manger.

III. Jubal is just junior to the one who likes Hiking.

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

Q68. What is the designation of the one who likes Archery?

(a) Probationary Officer
(b) Deputy General Manager
(c) Clerk
(d) Assistant Manager
(e) Manager

Q69. Which sports Kelvin like?

(a) Polo
(b) Hiking
(c) Surfing
(d) Archery
(e) Rugby

Q70. Which of the following person has Fencing its hobby?

(a) The one who is a Assistant Manager
(b) The one who is just junior to Manager
(c) The one who is just junior to Assistant Manager
(d) The one who is just senior to Deputy General Manager
(e) The one who is the junior-most employee

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

If it is possible to make only one meaningful English word with the first, third, seventh, and tenth letters from the left end of the word "CATEGORICAL", which of the following will be the third letter from the left end of that word? If no such word can be made give 'X' as the answer and if more than one such word can be made give 'Y' as the answer.

(a) R
(b) X
(c) C
(d) Y
(e) T

Q72. Direction: In the question below are given three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the following conclusions logically follows from the given statements disregarding commonly known facts.

Statement:

Every Coin is a Banknote.

Every Banknote is a Cheque.

Some Cheques are not Policy

Conclusion:

I. All Policies are Cheques.

II. All Banknotes being Policy is a possibility.

(a) Both I and II

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

Q73. Direction: In the question below are given three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the following conclusions logically follows from the given statements disregarding commonly known facts.

Statement:

No Wallet is Shoe

Some Shoe is Helmet

Only a few Helmet is Key

Conclusion:

I. All Key being Helmet is a possibility.

II. Some Helmets are not Wallet.

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

Q74. Direction: In the question below are given three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the following conclusions logically follows from the given statements disregarding commonly known facts.

Statement:

Only a few Glue is Ruler.

All Ruler is Clock.

Some Clock is not Desk.

Conclusion:

I. Some Clock is definitely not Glue.

II. All Desks are Ruler.

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

Directions

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

Fourteen persons are sitting in two parallel rows and facing each other. In row 1, P, Q, R, S, T, U, and V are facing south. In row 2, A, B, C, D, E, F, and G are facing north but necessarily in the same order. Not less than three persons sit to the right of R. The one, who sits opposite R, sits immediately to the left of B. Three persons sit between B and G. The one, who sits opposite to G, sits second to the right of S. A, and D are immediate neighbors. D does not sit opposite to R. F sits second to the right of A. Two persons sit between R and Q. U is sitting second to the left of S. U is not sitting at the extreme end. U is opposite to the one who sits immediately left of E. T sits neither opposite to C nor E. V sits second to the right of T.

Q75. Four of the following five are alike in a certain way as per the given arrangement and hence form a group. Find the one that does not belong to that group.

(a) Q and G
(b) P and E
(c) F and U

(d) T and A
(e) V and C

Q76. Who among the following person sits at the left end in row 2?
(a) F
(b) The one who is sitting immediately right of B
(c) E
(d) A
(e) The one who is sitting immediately left of G

Q77. The number of persons seated between T and R is same as the number of persons seated between G and ___.
(a) E
(b) A
(c) D
(d) B
(e) C

Q78. Who is seated third to the right of P?
(a) V
(b) T
(c) R
(d) S
(e) U

Q79. How many persons are seated between C and the one who faces U?
(a) Three
(b) Two
(c) Five
(d) Four
(e) One

Q80. Direction: Read the following information carefully and answer the given questions.

How many pairs of letters are there in the word “PRODUCT” each of which has as many letters between them as in the English alphabetical series (both forward and backward direction) as they have between them in the English alphabetical series?
(a) Three
(b) One
(c) More than four
(d) Two
(e) Four

Q81. Directions: In the following question assume the given statements to be true, find which of the conclusions among the given conclusions is/are true, and then give your answers accordingly.

Statement:

T = U > K > I > V > P < W; L > M ≥ N ≥ O > S; Q < S < V

Conclusion:

I. Q < U

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

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Q82. Directions: In the following question assume the given statements to be true, find which of the conclusions among the given conclusions is/are true, and then give your answers accordingly.

Statement:

A > B ≥ C ≥ D > E; D < F ≤ G ≤ H; I=F>J

Conclusion:

I. C > G

II. I ≤ H

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

Q83. Directions: In the following question assume the given statements to be true, find which of the conclusions among the given conclusions is/are true, and then give your answers accordingly.

Statement:

J > H < I < U < O; O ≤ K ≤ M; I ≥ F > R

Conclusion:

I. M > H

II. R < U

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

Directions

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

Six people Geet, Mehr, Naina, Pakhi, Riya, and Sanvi are sitting around a circular table facing the centre. Each of them likes different Fruits Apple, Cherry, Plum, Guava, Mango, and Kiwi. Only one person sits between Mehr and the one who likes Plum (either from the left or right side). The one who likes Apple sits immediately right of the one who likes Plum. Pakhi is second to the left of the one who likes Apple. Only two persons sit between Sanvi who likes Mango and Geet. Geet does not like Apple. The one who likes Guava sits immediately right of the one who likes Kiwi. Naina is neither an immediate neighbor of Mehr nor likes Apple. The one who likes Cherry does not sit second to the left of Naina.

Q84. Who is sitting third to the right of Riya?

(a) the one who likes Mango
(b) the one who likes Plum
(c) The one who is sitting immediately left of Pakhi
(d) the one who likes Cherry
(e) The one who is sitting immediately right of Geet.

Q85. Which of the following combination is true?

(a) Naina-Guava
(b) Geet-Apple
(c) Pakhi- Cherry
(d) Riya- Plum
(e) Sanvi-Mango

Q86. Who sits immediately left of Riya?

(a) Geet
(b) Naina
(c) the one who likes Cherry

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(d) Mehr
(e) The one who likes Kiwi

Q87. Who sits between the one who likes Plum and Mehr when counted from the right of Mehr?

(a) Naina
(b) The one who likes Mango
(c) Riya
(d) The one who likes Apple
(e) The one who likes Guava

Q88. Who sits opposite of the person who likes Guava?

(a) The one who sits immediately right of Sanvi
(b) The one who sits immediately left of Pakhi
(c) The one who likes Cherry
(d) the one who likes Apple
(e) The one who likes Plum

Q89. Direction: Read the following information carefully and answer the given questions.
Select the odd one out from the options given below.

(a) JKMP
(b) PQSV
(c) TUWZ
(d) FGIL
(e) MNPT

Directions

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

Ten persons Arush, Izaan, Jai, Kabir, Manav, Parth, Ritvik, Uday, Sahil, and Ved live (not necessarily in the same order as given) in two Flat A and Flat B in a building of five floors where floors are numbered as 1 to 5 from bottom to top. Each person lives in one flat. Flat A is west of Flat B.

Note: Flat A of Floor 1 is exactly below Flat A of Floor 2 and so on. If X lives in Flat A and it is given that Y lives above X then it means that Y lives in Flat A if not stated that it lives in a different flat.

Kabir lives three floors above Ved and both live in different flats. Parth lives just below Kabir’s floor. Manav lives just north-west of Arush. Jai lives to the west of Ritvik whose floor is below Uday's floor. More than one-floor gap is between Ved and Izaan. Izzan does not live on an even number of floors. Sahil lives just above the floor on which Manav lives.

Q90. What is the position of Ritvik?

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

Q91. Who among the following person lives to the right of Izaan?

(a) Manav
(b) Jai
(c) Parth
(d) Kabir
(e) Arush

Q92. Four of the following five are in the same group. Who does not belong to the group?

(a) Ritvik
(b) Arush
(c) Sahil
(d) Kabir

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(e) Parth

Q93. How many floors are between Kabir and Jai?

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

Q94. Who among the following lives in the Flat A on Floor 2?

(a) Ved
(b) Kabir
(c) Manav
(d) Uday
(e) Arush

Directions

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

Badri started walking from Point G in the south direction after walking 6 meters to reach Point H. From there take a left turn and walked 21 meters to reach Point I. From there he turns left and walks 5 meters to reach point L. From there he took a left turn and walked 16 meters to reach Point M. From there he took a right turn and walked 3 meters to react to Point N. From Point N he took a left turn and walked 15 meters to reach Point O. From O he took a right turn and walked for 12 meters to reach Point P. From P he takes a left turn and walks 5 meters to reach Point Q.

Q95. What is the distance travelled by Badri to reach Point L from Point G?

(a) 30 meter
(b) 31 meter
(c) 28 meter
(d) 32 meter
(e) 27 meter

Q96. Point H is in which direction with respect to N?

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

Q97. How far and in which direction is Point Q with respect to Point O?

(a) 11 meter, North East
(b) 15 meter, North
(c) 13 meter, North West
(d) 17 meter, East
(e) 10 meter, South

Directions

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

A certain number of persons are sitting in a row facing north. K is sitting second to the left of W, which is adjacent to X. The number of persons sitting to the right of Z is one more than the number of people sitting to J's left. Two persons are sitting between X and Z. One person is sitting between K and J. No one is sitting between Y and J, who is seated third from the left end of the row. Y is not sitting next to K. The Prime number of persons between W and Z. Z sits to the immediate left of T.

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Q98. Who is sitting fourth to the right of X?

(a) Y
(b) W
(c) Z
(d) J
(e) T

Q99. How many persons are sitting in the row?

(a) 10
(b) 16
(c) 12
(d) 14
(e) 17

Q100. What is the position of J with respect to K?

(a) Immediate right
(b) Second to the left
(c) Third to the right
(d) Second to the right
(e) Immediate left

ANSWER KEY

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

SOLUTIONS

Q1. Answer: (d) Central Railways and Western Railways

The correct answer is 'Option 4'.

Key Points

• Mumbai Suburban Railway is primarily operated by two divisions.
• These two divisions are mentioned explicitly in the passage as Western Railways (WR) and Central Railways (CR).
• The passage details the historical significance and operational aspects of these railway divisions.
• It emphasizes the role of these two divisions in ensuring the efficient functioning of Mumbai's extensive railway network.

Therefore, the correct answer is- 'Central Railways and Western Railways'.

Additional Information

• Option 1: Northern Railways and Western Railways
• Incorrect because Northern Railways does not operate the Mumbai Suburban Railway. The passage indicates that it is Central Railways and Western Railways.
• Option 2: Central Railways and Eastern Railways
• Incorrect because the passage does not mention Eastern Railways as an operator of the Mumbai Suburban Railway.

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• Option 3: Western Railways and Southern Railways

• Incorrect because Southern Railways is not involved in operating the Mumbai Suburban Railway, as noted in the passage.

• Option 5: Southern Railways and Eastern Railways

• Incorrect for the same reasons above; these divisions are not operators of the Mumbai Suburban Railway according to the passage.

Q2. Answer: (a) The first train in Mumbai ran from Chhatrapati Shivaji Maharaj Terminus to Kasara

The correct answer is 'Option 1'.

Key Points

• The passage states that the first train in Mumbai ran from Bori Bunder (now Chhatrapati Shivaji Maharaj Terminus) to Thane, not Kasara.

• The incorrect statement is option 1, which inaccurately mentions Kasara instead of Thane as the destination of the first train.

• Option 2 is correct as the passage mentions that the Mumbai Suburban Railway serves more than 7.5 million commuters daily.

• Option 3 is correct, as the passage states that the Harbour Line branches off from the Central Line and covers Navi Mumbai.

• Option 4 is accurate because the passage details that the network consists of the Western Line, Central Line, and Harbour Line.

• Option 5 is true since the passage describes the Chhatrapati Shivaji Maharaj Terminus as a UNESCO World Heritage Site.

Therefore, the correct answer is ‘The first train in Mumbai ran from Chhatrapati Shivaji Maharaj Terminus to Kasara’.

Additional Information

• Option 1: The first train in Mumbai ran from Chhatrapati Shivaji Maharaj Terminus to Kasara

• Incorrect because the passage specifies that the first train ran from Bori Bunder (now Chhatrapati Shivaji Maharaj Terminus) to Thane, not Kasara.

• Option 2: The Mumbai Suburban Railway serves more than 7.5 million commuters daily.

• This statement is correct as per the passage, which mentions that the suburban trains serve more than 7.5 million commuters daily.

• Option 3: The Harbour Line branches off from the Central Line and covers Navi Mumbai.

• This statement is accurate as the passage clearly states that the Harbour Line branches off from the Central Line and extends to both Panvel and Goregaon, covering Navi Mumbai in the process.

• Option 4: The network consists of the Western Line, Central Line, and Harbour Line.

• This is correct, as the passage describes the network as comprising three main lines: the Western Line, Central Line, and Harbour Line.

• Option 5: The Chhatrapati Shivaji Maharaj Terminus is a UNESCO World Heritage Site.

• This statement is true as per the passage, which highlights that the Chhatrapati Shivaji Maharaj Terminus is a UNESCO World Heritage Site known for its Victorian Gothic architecture.

Q3. Answer: (c) Reflects the cultural diversity of Mumbai.

The correct answer is 'Option 3'.

Key Points

• The passage points out that the Mumbai Suburban Railway serves as a cultural microcosm, reflecting the diverse population of Mumbai.

• It emphasizes that the daily commute on these trains brings together people from all walks of life, creating a unique sense of community.

• Vendors, performers, and the presence of historic stations add to the cultural experience on these trains.

• The passage suggests that the railway is not just a mode of transport but also holds cultural importance, highlighting Mumbai's diversity.

Therefore, the correct answer is ‘Reflects the cultural diversity of Mumbai’.

Additional Information

• Option 1: Is primarily used by tourists.

• Incorrect because the passage mentions the suburban railway is the lifeline for daily commuters, implying it's mainly used by locals, not primarily tourists.

• Option 2: Is disliked by the majority of commuters.

• Incorrect as the passage does not suggest that commuters dislike the service; rather, it highlights the importance and efficiency of the railway system despite challenges like overcrowding.

• Option 4: Has no specific facilities for different segments of the population.

• Incorrect because the passage explicitly states that the trains include coaches for women, senior citizens, and disabled passengers, addressing the needs of different population segments.

• Option 5: Is less crowded during peak hours.

• Incorrect because the passage states that trains run as often as every three minutes during peak hours to handle high traffic, implying that they are, in fact, very crowded during these times.

Q4. Answer: (a) The history and current significance of the Mumbai Suburban Railway

The correct answer is 'Option 1'.

Key Points

• The passage primarily focuses on the Mumbai Suburban Railway, detailing its historical origins, its critical role in the daily lives of millions, and its current operations.

• It highlights the railway's vast network, the various lines it operates, and its significant role in the cultural and economic life of Mumbai.

• The passage also touches upon recent developments like the Mumbai Metro and Monorail, but emphasizes that the suburban railway remains unmatched in reach and utility.

• Additionally, it describes the daily experiences and challenges of commuting on these trains, as well as the cultural significance of the railway system in Mumbai.

Therefore, the correct answer is ‘The history and current significance of the Mumbai Suburban Railway’.

Additional Information

• Option 2: The introduction of the Mumbai Metro and the Monorail.

• Incorrect because while the passage mentions the Mumbai Metro and the Monorail, they are only discussed in the context of their relation to the existing suburban railway system and not the central focus.

• Option 3: The architectural heritage of Chhatrapati Shivaji Maharaj Terminus.

• Incorrect because although the passage briefly discusses the Chhatrapati Shivaji Maharaj Terminus and its architectural significance, this is only a part of the broader discussion about the Mumbai Suburban Railway.

• Option 4: The financial markets and skyline of Mumbai.

• Incorrect because the main focus of the passage is on the railway system, not the financial markets or the skyline.

• Option 5: The role of vendors and performers on Mumbai suburban trains.

• Incorrect because while vendors and performers are mentioned, this detail is part of a broader discussion about the cultural importance of the railway and not the central theme.

Q5. Answer: (d) B and C

The correct answer is 'Option 4'.

Key Points

• Statement A: "The Mumbai Suburban Railway played a role in the establishment of Mumbai's impressive skyline."

• Incorrect. The passage does not state that the railway played a role in establishing Mumbai's skyline. The skyline is mentioned separately in the introductory context.

• Statement B: "Efforts have been made to improve safety standards on the railway."

• Correct. The passage mentions that there have been continuous efforts to improve safety standards, including the introduction of advanced signaling systems, improved station facilities, and increased security measures.

• Statement C: "The Western Line runs from Churchgate to Dahanu Road."

• Correct. The passage clearly states that the Western Line runs from Churchgate to Dahanu Road.

Therefore, the correct answer is 'B and C'.

Q6. Answer: (a) Only A

The correct answer is 'Option 1'.

Key Points

• Statement A: "The Harbour Line does not extend to Navi Mumbai."

• Incorrect. The passage states that the Harbour Line branches off from the Central Line and extends to both Panvel and Goregaon, covering Navi Mumbai in the process. Therefore, the Harbour Line does extend to Navi Mumbai, making this statement incorrect.

• Statement B: "The Mumbai Metro and Monorail are designed to complement the suburban railway."

• Correct. The passage mentions that one of the significant developments in recent years has been the introduction of the Mumbai Metro and the Monorail, which are designed to complement the existing railway system and ease congestion.

• Statement C: "Chhatrapati Shivaji Maharaj Terminus was built in 1887."

• Correct. The passage states that among the most famous stations is the Chhatrapati Shivaji Maharaj Terminus, which was built in 1887 and is known for its Victorian Gothic architecture.

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Therefore, the incorrect statement is 'Only A'.

Q7. Answer: (b) Busy

The solution is in Hindi. Read it online.

Q8. Answer: (c) Insignificant

The solution is in Hindi. Read it online.

Q9. Answer: (d) Ruckus

The solution is in Hindi. Read it online.

Q10. Answer: (b) Derogatory

The solution is in Hindi. Read it online.

Q11. Answer: (e) overture

The solution is in Hindi. Read it online.

Q12. Answer: (d) inflamed

The solution is in Hindi. Read it online.

Q13. Answer: (c) BADEC

The correct answer is BADEC.

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 an adjective, which modifies the noun 'years''. Therefore, 'few' is the correct answer here.

• The second blank requires an adverb that is used with a measurement of time. Therefore, 'ago' is the correct answer here.

• The third blank requires an adjective that describes the characteristic of the action of operating a patient. Therefore, 'impossible' is the correct answer here.

• The fourth blank requires a noun that should be related to the patient and able to get operated on. Therefore 'heart' is the correct answer.

• The fifth blank requires a verb that describes the action of the noun 'heart'. Therefore, 'working' is the correct answer

Therefore, the correct answer is,

A few years ago it was impossible to operate on a patient whose heart was not working properly.

Q14. Answer: (d) BAECD

The correct answer is BAECD.

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 an adverb, which shows the fact. Therefore, 'actually' is the correct answer here.

• The second blank requires a noun that the adverb 'actually' is mentioning. Therefore, 'drama' is the correct answer here.

• The third blank requires a verb that describes the action and that too third form of the verb 'be'. Therefore, 'been' is the correct answer here.

• The fourth blank requires an adjective that describes the noun 'people'. Therefore 'Indian' is the correct answer.

• The fifth blank requires a noun that goes along with another noun 'politicians'. Therefore, 'actors' is the correct answer

Additional Information

• Let's look at the meaning of the given word.

• legends:

an extremely famous or notorious person, especially in a particular field

Therefore, the correct answer is,

Actually, the drama has always been the life of Indian people, as it deals with legends of actors and politicians.

Q15. Answer: (a) BCEAD

The correct answer is BCEAD.

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 person's name because an adverb 'according' is used for this noun which means 'something stated by someone'. Therefore, 'Gandhiji' is the correct answer here.

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• The second blank requires a noun that is a plural one because the pronoun 'all' is used before it. Therefore, 'religions' is the correct answer here.

• The third blank requires an adverb that modifies the adjective 'true. Therefore, 'equally' is the correct answer here.

• The fourth blank requires a pronoun that can be used for the noun 'scripture'. Therefore 'each' is the correct answer.

• The fifth blank requires an adjective that describes the quality of the noun 'religion'. Therefore, 'worthy' is the correct answer

Additional Information

• Let's look at the meaning of the given words.

• scripture: religious text

• worthy:

having or showing the qualities that deserve the specified action or regard.

Therefore, the correct answer is,

According to Gandhiji, all religions are equally true and each scripture is worthy of respect.

Q16. Answer: (d) BDEAC

The correct answer is BDEAC.

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 which is a part of the noun 'officer' describing the specific kind of officer. Therefore, 'police' is the correct answer here.

• The second blank requires a pronoun that is used for the noun 'police'. Therefore, 'whose' is the correct answer here.

• The third blank requires a verb describing the action related to the citizens. Therefore, 'protect' is the correct answer here.

• The fourth blank requires a verb that describes the action which is related to the noun 'crimes'. Therefore 'solve' is the correct answer.

• The fifth blank requires a noun that goes along in combination with another noun which is joined by the conjunction 'and. Therefore, 'rules' is the correct answer

Therefore, the correct answer is,

Police officers are law enforcement professionals whose job is to protect citizens, solve crimes, and assure that rules and regulations are followed

Q17. Answer: (e) E

The correct answer is E.

Key Points

• The given paragraph is about the Lotte World Tower in South Korea.

• Sentence E is the first sentence as it introduces the Lotte World Tower and its various features like retail outlets, offices, residences, hotel and Lotte World Mall.

• Sentence F is the second sentence as it explains further about the significance of the Tower to South Korea and its national pride.

• Sentence B is the third sentence as it details which companies were primarily involved in the construction of the tower.

• Sentence D is already in the correct place, as the fourth sentence describing the tower's impressive height.

• Sentence A would serve as the fifth sentence, elaborating on unique additional features like a helipad and a maximum capacity of over 500 residents.

• Sentence C is the sixth sentence as it concludes the paragraph by talking about the history and completion of the Tower.

• The correct sequence is EFBDAC.

Correct Paragraph: The comprehensive Lotte World Tower complex includes retail outlets, offices, residences, a hotel, and a podium with the Lotte World Mall. The Tower is a new symbol for the national pride of South Korea and its aspiration to be at the forefront of global trends in architecture and technology. The project was completed primarily by the South Korean construction company Hyundai Engineering & Construction and High-Tech Industrial Development. The Lotte World Tower situated in Seoul, South Korea, is one of the tallest buildings in the world with an impressive height of 1,819 feet. The unique construction features a helipad and has a maximum capacity of over 500 residents. Despite being renowned for its elegance and luxury, the Tower had a bleak history and was completed after 11 years of persistent efforts.

Q18. Answer: (c) F

The correct answer is F.

Key Points

• The given paragraph is about the Lotte World Tower in South Korea.

• Sentence E is the first sentence as it introduces the Lotte World Tower and its various features like retail outlets, offices, residences, hotel and Lotte World Mall.

• Sentence F is the second sentence as it explains further about the significance of the Tower to South Korea and its national pride.

• Sentence B is the third sentence as it details which companies were primarily involved in the construction of the tower.

• Sentence D is already in the correct place, as the fourth sentence describing the tower's impressive height.

• Sentence A would serve as the fifth sentence, elaborating on unique additional features like a helipad and a maximum capacity of over 500 residents.

• Sentence C is the sixth sentence as it concludes the paragraph by talking about the history and completion of the Tower.

• The correct sequence is EFBDAC.

Correct Paragraph: The comprehensive Lotte World Tower complex includes retail outlets, offices, residences, a hotel, and a podium with the Lotte World Mall. The Tower is a new symbol for the national pride of South Korea and its aspiration to be at the forefront of global trends in architecture and technology. The project was completed primarily by the South Korean construction company Hyundai Engineering & Construction and High-Tech Industrial Development. The Lotte World Tower situated in Seoul, South Korea, is one of the tallest buildings in the world with an impressive height of 1,819 feet. The unique construction features a helipad and has a maximum capacity of over 500 residents. Despite being renowned for its elegance and luxury, the Tower had a bleak history and was completed after 11 years of persistent efforts.

Q19. Answer: (a) B

The correct answer is B.

Key Points

• The given paragraph is about the Lotte World Tower in South Korea.

• Sentence E is the first sentence as it introduces the Lotte World Tower and its various features like retail outlets, offices, residences, hotel and Lotte World Mall.

• Sentence F is the second sentence as it explains further about the significance of the Tower to South Korea and its national pride.

• Sentence B is the third sentence as it details which companies were primarily involved in the construction of the tower.

• Sentence D is already in the correct place, as the fourth sentence describing the tower's impressive height.

• Sentence A would serve as the fifth sentence, elaborating on unique additional features like a helipad and a maximum capacity of over 500 residents.

• Sentence C is the sixth sentence as it concludes the paragraph by talking about the history and completion of the Tower.

• The correct sequence is EFBDAC.

Correct Paragraph: The comprehensive Lotte World Tower complex includes retail outlets, offices, residences, a hotel, and a podium with the Lotte World Mall. The Tower is a new symbol for the national pride of South Korea and its aspiration to be at the forefront of global trends in architecture and technology. The project was completed primarily by the South Korean construction company Hyundai Engineering & Construction and High-Tech Industrial Development. The Lotte World Tower situated in Seoul, South Korea, is one of the tallest buildings in the world with an impressive height of 1,819 feet. The unique construction features a helipad and has a maximum capacity of over 500 residents. Despite being renowned for its elegance and luxury, the Tower had a bleak history and was completed after 11 years of persistent efforts.

Q20. Answer: (c) A

The correct answer is A.

Key Points

• The given paragraph is about the Lotte World Tower in South Korea.

• Sentence E is the first sentence as it introduces the Lotte World Tower and its various features like retail outlets, offices, residences, hotel and Lotte World Mall.

• Sentence F is the second sentence as it explains further about the significance of the Tower to South Korea and its national pride.

• Sentence B is the third sentence as it details which companies were primarily involved in the construction of the tower.

• Sentence D is already in the correct place, as the fourth sentence describing the tower's impressive height.

• Sentence A would serve as the fifth sentence, elaborating on unique additional features like a helipad and a maximum capacity of over 500 residents.

• Sentence C is the sixth sentence as it concludes the paragraph by talking about the history and completion of the Tower.

• The correct sequence is EFBDAC.

Correct Paragraph: The comprehensive Lotte World Tower complex includes retail outlets, offices, residences, a hotel, and a

podium with the Lotte World Mall. The Tower is a new symbol for the national pride of South Korea and its aspiration to be at the forefront of global trends in architecture and technology. The project was completed primarily by the South Korean construction company Hyundai Engineering & Construction and High-Tech Industrial Development. The Lotte World Tower situated in Seoul, South Korea, is one of the tallest buildings in the world with an impressive height of 1,819 feet. The unique construction features a helipad and has a maximum capacity of over 500 residents. Despite being renowned for its elegance and luxury, the Tower had a bleak history and was completed after 11 years of persistent efforts.

Q21. Answer: (a) C

The correct answer is C.

Key Points

• The given paragraph is about the Lotte World Tower in South Korea.

• Sentence E is the first sentence as it introduces the Lotte World Tower and its various features like retail outlets, offices, residences, hotel and Lotte World Mall.

• Sentence F is the second sentence as it explains further about the significance of the Tower to South Korea and its national pride.

• Sentence B is the third sentence as it details which companies were primarily involved in the construction of the tower.

• Sentence D is already in the correct place, as the fourth sentence describing the tower's impressive height.

• Sentence A would serve as the fifth sentence, elaborating on unique additional features like a helipad and a maximum capacity of over 500 residents.

• Sentence C is the sixth sentence as it concludes the paragraph by talking about the history and completion of the Tower.

• The correct sequence is EFBDAC.

Correct Paragraph: The comprehensive Lotte World Tower complex includes retail outlets, offices, residences, a hotel, and a podium with the Lotte World Mall. The Tower is a new symbol for the national pride of South Korea and its aspiration to be at the forefront of global trends in architecture and technology. The project was completed primarily by the South Korean construction company Hyundai Engineering & Construction and High-Tech Industrial Development. The Lotte World Tower situated in Seoul, South Korea, is one of the tallest buildings in the world with an impressive height of 1,819 feet. The unique construction features a helipad and has a maximum capacity of over 500 residents. Despite being renowned for its elegance and luxury, the Tower had a bleak history and was completed after 11 years of persistent efforts.

Q22. Answer: (b) B

The correct answer is 'B' i.e. the error lies in part B of the sentence.

Key Points

Let us have a look at few words given in the sentence:

• Returns is a verb.

• Slow is an adjective.

• A verb should be preceded by an adverb.

• Hence, slow should be replaced with slowly.

So the correct sentence is The southern state of Kerala slowly returns to normalcy, days after devastating floods claimed over 450 lives and caused massive destruction.

Additional Information

Let us understand the following about adverb:

• An adverb is a word that modifies (describes)

• a verb

• Example: She sings loudly.

• an adjective

• Example: She is very tall.

• another adverb

• Example: The episode ended too quickly.

• a whole sentence

• Example: Fortunately, I had brought an umbrella.

• Adverbs often end in -ly.

• Example: beautifully, carefully, quickly, etc.

• However, some adverbs look exactly the same as their adjective counterparts.

• Example: fast.

Q23. Answer: (d) D

The erroneous part is D i.e. this part of the sentence has an error.

Key Points

• The last part (D) of the sentence is erroneous because the word 'feasting' is grammatically incorrect.

• The preposition 'to' is used before the word 'feasting'. Therefore, infinitive should be used here.

• Hence, the base form of the word 'feasting' should be used here.

• So, the word 'feast' should replace 'feasting'.

• Hence, option 4) is the answer.

Correct sentence: Researchers have found a whale species that typically migrates away from solid sea ice each autumn and returns every summer to feast on tiny crustaceans.

Additional Information

• An infinitive is the base form of the verb.

• Example: He likes to eat apple.

Q24. Answer: (a) ABD

The correct answer is option 1 i.e. ABD.

Key Points

• The error lies in part C.

• The word 'loosing' used here is incorrect. The correct word will be 'losing' in this context.

• Lose is a verb that means to be without (lose a sock), to fail (lose the game), or to be deprived of (lose a job). Other forms of this verb are lost and losing.

• Loose is most often an adjective that means not tight (a loose belt) or unbound and unconstrained (loose lips). It can also be used as an adverb or verb with similar meanings of being unconstrained.

So, the correct sentence is,

With Casper and Glossier venturing into new product ranges, their regular customers start losing trust in the companies and their products.

Q25. Answer: (e) No correction required

The correct answer is Option 5 i.e. No correction required.

Key Points

• The original sentence is grammatically correct, so the correct answer is "No correction required."

• The sentence follows the correct structure of a sentence with a subject, verb, and object.

• The subject is "The government," the verb is "has announced," and the object is "plans to launch a new initiative aimed at reducing plastic waste in the oceans."

• The phrase "aimed at reducing plastic waste in the oceans" is a prepositional phrase that modifies "initiative."

• The phrase "aimed at" shows the purpose of the initiative, which is to reduce plastic waste in the oceans.

• Therefore, the sentence is already grammatically correct, and we don't need to make any changes.

Q26. Answer: (e) No correction required

The correct answer is Option 2 i.e. to move into a larger office space

Key Points

• We can improve the given sentenec by replacing "to a larger office space" with "into a larger office space."

• The verb "to move" is a transitive verb, which means it requires a direct object. In this case, the direct object is "its headquarters."

• The prepositional phrase "to a larger office space" functions as an adverb to modify the verb "move."

• However, when we use "to move" with a destination that is an enclosed space, like an office, it is more appropriate to use the preposition "into." So, the correct sentence would use "into" instead of "to."

• Therefore, option 2) "to move into a larger office space" is the correct choice, and the corrected sentence is grammatically accurate and more precise.

• Here's the corrected sentence: "The company has decided to move its headquarters into a larger office space in the downtown area."

Q27. Answer: (d) to be prepared to discuss it in class on Monday

The correct answer is Option 4.

Key Points

• The original sentence contains the phrase "to be prepare," which is incorrect.
• The correct form should be "to be prepared" to ensure proper grammatical structure.
• Thus, the phrase should be "to be prepared to discuss it in class on Monday" to make the sentence correct.

Therefore, the correct answer is Option 4.

Correct Sentence: "The teacher asked her students to read the novel over the weekend and to be prepared to discuss it in class on Monday.

Q28. Answer: (c) C-i-D

The correct answer is option 3.

Key Points

To answer this question, first, let's look at the given phrases in the table:

• A. The project encapsulated their collective efforts,
• This phrase expresses the combined work and dedication of everyone involved.
• B. The results of the experiment had been inconclusive,
• This phrase mentions that the experiment didn't provide clear or definite findings.
• C. Comprising 14% of the global population,
• This phrase refers to a specific portion of the world's population.
• D. the WHO African region collected only 5% of global donations.
• This phrase highlights the low amount of donations collected in Africa.
• E. making it unsuitable for beginners.
• This phrase mentions that something is not good for beginners.
• F. they embarked on the adventurous hike into the remote, snow-covered mountains.
• This phrase describes a daring journey through isolated snowy mountains.

Now, let's understand the meanings of the given connectors in the question:

• i. despite
• It means "regardless of" or "in spite of."
• For Example:
• Despite the storm, she went out for a run.
• ii. moreover
• It means "furthermore" or "in addition to what has been said."
• For Example:
• She aced her exams; moreover, she volunteered at the shelter.
• iii. conversely
• It means "on the contrary" or "in contrast."
• For Example:
• He expected failure; conversely, he achieved great success.
• So, after understanding the given phrases and the connectors, we can conclude that only the combination C-i-D can make a grammatically and contextually meaningful sentence.
• The complete coherent sentence would be: "Despite comprising 14% of the global population, the WHO African region collected only 5% of global donations."
• This sentence points out that although Africa has 14% of the world's population, it received only 5% of global donations.
• Therefore, the correct answer is "C-i-D."

Q29. Answer: (b) B-ii-D

The correct answer is option 2.

Key Points

To answer this question, first, let's look at the given phrases in the table:

• A. The findings supported the hypothesis;
• This phrase suggests the hypothesis was backed by evidence or results.
• B. Phones stimulate our dopamine circuit,
• This phrase mentions that phones trigger our pleasure centre, causing excitement.
• C. She implemented a new strategy;
• This phrase indicates the introduction of a fresh plan or approach by her.

• D. failing to provide the long-term happiness humans seek from experiences.
• This phrase suggests experiences do not deliver lasting happiness to people.
• E. her husband set the table for the family.
• This phrase describes the husband setting the family dinner table.
• F. they persisted in their plan to explore the mountains.
• This phrase highlights determination in pursuing mountain exploration despite obstacles.
Now, let's understand the meanings of the given connectors in the question:
• i. meanwhile
• It means "at the same time" or "during that period."
• For Example:
• She was cooking; meanwhile, he set the table for dinner.
• ii. thus
• It means "as a result" or "in this way," indicating a consequence or conclusion.
• For Example:
• He studied hard; thus, he aced the exam.
• iii. albeit
• It means "although" or "even though," introducing a concession or contrast.
• For Example:
• She was tired; albeit, she finished the project on time.
• So, after understanding the given phrases and the connectors, we can conclude that only the combination B-ii-D can make a grammatically and contextually meaningful sentence.
• The complete coherent sentence would be: "Phones stimulate our dopamine circuit, thus failing to provide the long-term happiness humans seek from experiences."
• The sentence suggests that phone use triggers short-term pleasure but doesn't fulfil our deeper, lasting happiness from real-life experiences.
• Therefore, the correct answer is "B-ii-D."

Q30. Answer: (a) C-iii-E

The correct answer is option 1.
Key Points
To answer this question, first, let's look at the given phrases in the table:
• A. They departed from the quaint village,
• This phrase describes leaving a charming, old-fashioned village.
• B. The project's success relied heavily on teamwork,
• This phrase highlights how the project depended on a collaborative effort.
• C. Winning the war against NCDs is vital for individual well-being,
• This phrase emphasizes the importance of defeating non-communicable diseases for personal health.
• D. he reached the picturesque village nestled in the valley.
• This phrase describes arriving at a beautiful village in a valley.
• E. safeguarding the health of the nation.
• This phrase emphasizes protecting the overall well-being of the country.
• F. he faced various health issues later in life.
• This phrase refers to the health problems he encountered as he aged.
Now, let's understand the meanings of the given connectors in the question:
• i. notwithstanding
• It means "despite" or "in spite of" and indicates a contrast or exception to a previous statement.
• For Example:
• She continued working, notwithstanding her exhaustion from the long day.
• ii. be that as it may
• It means "nevertheless" or "however," acknowledging a point but continuing the argument or discussion.
• For Example:
• The weather was bad, but, be that as it may, they still enjoyed their vacation.

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• iii. as well as

• It means "in addition to" or "along with," indicating inclusion or a parallel point.

• For Example:

• She bought apples as well as oranges for the fruit salad.

• So, after understanding the given phrases and the connectors, we can conclude that only the combination C-iii-E can make a grammatically and contextually meaningful sentence.

• The complete coherent sentence would be: "Winning the war against NCDs is vital for individual well-being, as well as safeguarding the health of the nation."

• This sentence emphasizes the importance of fighting Non-Communicable Diseases for personal health and the nation's well-being.

• Therefore, the correct answer is "C-iii-E."

Q31. Answer: (d) 300

General solution:

Number of tables sold in shop A = x

Number of chairs sold in shop A = y

Number of tables sold in shop B = (x - 20)

Number of chairs sold in shop A is 70% of number of chairs sold in shop B

Number of chairs sold in shop B = y/(70) × 100 = (10y/7)

Number of tables sold in shop C = (x - 40)

Number of tables sold in shop D = (60/100) × x = 0.6x

Number of chairs sold in shop C = 80/100 × (10y/7) = 8y/7

Number of chairs sold in shop D = (8y/7) × (75/100) = 6y/7

Total tables sold in all the shops is 170 more than total chairs sold in all the shops

[x + (x - 20) + (x - 40) + 0.6x] - [y + 10y/7 + (8y/7)y + (6y/7)] = 170

(3.6x - 60) - (y + 24y/7) = 170

(3.6x - 60) - (7y + 24y)/7 = 170

25.2x - 420 - (7y + 24y) = 1190

25.2x - 31y = 1610 —----> 1

2 × 31→ x + y = 220 —------>2

25.2x - 31y = 1610

31x + 31y = 6820

56.2x = 8430

x = 150

y = 70

Number of tables sold in shop A = x = 150

Number of chairs sold in shop A = y = 70

Number of tables sold in shop B = (x - 20) = (150 - 20) = 130

Number of chairs sold in shop A is 70% of number of chairs sold in shop B

Number of chairs sold in shop B = y/(70) × 100 = (10y/7) = 10 × 70/7 = 100

Number of tables sold in shop C = (x - 40) = (150 - 40) = 110

Number of tables sold in shop D = (60/100) × x = 0.6x = 150 × (0.6) = 90

Number of chairs sold in shop C = 80/100 × (10y/7) = 8y/7 = 8 × (70/7) = 80

Number of chairs sold in shop D = (8y/7) × (75/100) = 6y/7 = 6 × (70/7) = 60

Solution:

Price of each table in shop A = Rs. a

Price of each chair in shop A = Rs. (a + 100)

Total revenue generated = Rs. 73000

a× 150 + (a + 100) × 70 = 73000

150a + 70a + 7000 = 73000

220a = 66000

a = 300

Q32. Answer: (d) 200

General solution:

Number of tables sold in shop A = x

Number of chairs sold in shop A = y

Number of tables sold in shop B = (x - 20)

Number of chairs sold in shop A is 70% of number of chairs sold in shop B

Number of chairs sold in shop B = y/(70) × 100 = (10y/7)

Number of tables sold in shop C = (x - 40)

Number of tables sold in shop D = (60/100) × x = 0.6x

Number of chairs sold in shop C = 80/100 × (10y/7) = 8y/7

Number of chairs sold in shop D = (8y/7) × (75/100) = 6y/7

Total tables sold in all the shops is 170 more than total chairs sold in all the shops

[x + (x - 20) + (x - 40) + 0.6x] - [y + 10y/7 + (8y/7)y + (6y/7)] = 170

(3.6x - 60) - (y + 24y/7) = 170

(3.6x - 60) - (7y + 24y)/7 = 170

25.2x - 420 - (7y + 24y) = 1190

25.2x - 31y = 1610 —----> 1

2 × 31→ x + y = 220 —------>2

25.2x - 31y = 1610

31x + 31y = 6820

56.2x = 8430

x = 150

y = 70

Number of tables sold in shop A = x = 150

Number of chairs sold in shop A = y = 70

Number of tables sold in shop B = (x - 20) = (150 - 20) = 130

Number of chairs sold in shop A is 70% of number of chairs sold in shop B

Number of chairs sold in shop B = y/(70) × 100 = (10y/7) = 10 × 70/7 = 100

Number of tables sold in shop C = (x - 40) = (150 - 40) = 110

Number of tables sold in shop D = (60/100) × x = 0.6x = 150 × (0.6) = 90

Number of chairs sold in shop C = 80/100 × (10y/7) = 8y/7 = 8 × (70/7) = 80

Number of chairs sold in shop D = (8y/7) × (75/100) = 6y/7 = 6 × (70/7) = 60

Solution:

Number of tables sold at discount in shop A = 150 × (3/5) = 90

Number of tables sold at discount in shop C = 110 × (4/11) = 40

Number of chairs sold at discount in shop A = 70 × (3/7) = 30

Number of chairs sold at discount in shop C = 80 × (1/2) = 40

Total number of chairs and tables in shop A and C sold at the discount = (90 + 40 +30 + 40) = 200

Q33. Answer: (c) 33.33%

General solution:

Number of tables sold in shop A = x

Number of chairs sold in shop A = y

Number of tables sold in shop B = (x - 20)

Number of chairs sold in shop A is 70% of number of chairs sold in shop B

Number of chairs sold in shop B = y/(70) × 100 = (10y/7)

Number of tables sold in shop C = (x - 40)

Number of tables sold in shop D = (60/100) × x = 0.6x

Number of chairs sold in shop C = 80/100 × (10y/7) = 8y/7

Number of chairs sold in shop D = (8y/7) × (75/100) = 6y/7

Total tables sold in all the shops is 170 more than total chairs sold in all the shops

[x + (x - 20) + (x - 40) + 0.6x] - [y + 10y/7 + (8y/7)y + (6y/7)] = 170

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(3.6x - 60) - (y + 24y/7) = 170
(3.6x - 60) - (7y + 24y)/7 = 170
25.2x - 420 - (7y + 24y) = 1190
25.2x - 31y = 1610 —-----> 1
2 × 31→ x + y = 220 —------>2
25.2x - 31y = 1610
31x + 31y = 6820
56.2x = 8430
x = 150
y = 70
Number of tables sold in shop A = x = 150
Number of chairs sold in shop A = y = 70
Number of tables sold in shop B = (x - 20) = (150 - 20) = 130
Number of chairs sold in shop A is 70% of number of chairs sold in shop B
Number of chairs sold in shop B = y/(70) × 100 = (10y/7) = 10 × 70/7 = 100
Number of tables sold in shop C = (x - 40) = (150 - 40) = 110
Number of tables sold in shop D = (60/100) × x = 0.6x = 150 × (0.6) = 90
Number of chairs sold in shop C = 80/100 × (10y/7) = 8y/7 = 8 × (70/7) = 80
Number of chairs sold in shop D = (8y/7) × (75/100) = 6y/7 = 6 × (70/7) = 60
Solution:
Number of tables sales in shop D is increased by p
(90 + p)/60 = 2/1
120 = 90 + p
p = 30
Value of b = (30/90) × 100 = 33.33%
Therefore the value of b = 33.33%

Q34. Answer: (c) 265

General solution:
Number of tables sold in shop A = x
Number of chairs sold in shop A = y
Number of tables sold in shop B = (x - 20)
Number of chairs sold in shop A is 70% of number of chairs sold in shop B
Number of chairs sold in shop B = y/(70) × 100 = (10y/7)
Number of tables sold in shop C = (x - 40)
Number of tables sold in shop D = (60/100) × x = 0.6x
Number of chairs sold in shop C = 80/100 × (10y/7) = 8y/7
Number of chairs sold in shop D = (8y/7) × (75/100) = 6y/7
Total tables sold in all the shops is 170 more than total chairs sold in all the shops
[x + (x - 20) + (x - 40) + 0.6x] - [y + 10y/7 + (8y/7)y + (6y/7)] = 170
(3.6x - 60) - (y + 24y/7) = 170
(3.6x - 60) - (7y + 24y)/7 = 170
25.2x - 420 - (7y + 24y) = 1190
25.2x - 31y = 1610 —-----> 1
2 × 31→ x + y = 220 —------>2
25.2x - 31y = 1610
31x + 31y = 6820
56.2x = 8430
x = 150
y = 70
Number of tables sold in shop A = x = 150
Number of chairs sold in shop A = y = 70

Number of tables sold in shop B = (x - 20) = (150 - 20) = 130
Number of chairs sold in shop A is 70% of number of chairs sold in shop B
Number of chairs sold in shop B = y/(70) × 100 = (10y/7) = 10 × 70/7 = 100
Number of tables sold in shop C = (x - 40) = (150 - 40) = 110
Number of tables sold in shop D = (60/100) × x = 0.6x = 150 × (0.6) = 90
Number of chairs sold in shop C = 80/100 × (10y/7) = 8y/7 = 8 × (70/7) = 80
Number of chairs sold in shop D = (8y/7) × (75/100) = 6y/7 = 6 × (70/7) = 60
Solution:
Number of tables sold in shop A = 150
Number of tables sold in shop B = 130
Number of tables sold in the shop E = (150 + 130)/2 = 280/2 = 140 + 25 = 165
Number of chairs sold in shop A = 70
Number of chairs sold in shop D = 60
Number of chairs sold in shop E = (60 + 70)/2 = 130/2 = 65 + 35 = 100
Required total = (165 + 100) = 265

Q35. Answer: (b) 110

The pattern of the given series can be explained as:
4 × 1.5 = 6
6 × 3 = 18
18 × 6 = 108 ≠ 110
108 × 12 = 1296
1296 × 24 = 31104
Therefore The wrong term is 110.

Q36. Answer: (d) 196

Given:
24, 26, 36, 62, 112, 196, 316
Calculation:
=> 24 + 2 (1^2 +1) = 26
=> 26 + 10 (32 +1) = 36
=> 36 + 26 (52 +1) = 62
=> 62 + 50 (72 +1) = 112
=> 112 + 82 (92 +1) = 194
=> 194 + 122 (112 +1) = 316
Therefore The wrong term is 196.

Q37. Answer: (c) 1069

Given:
155, 298, 493, 748,1069, 1470
Calculation:
=> 155 + (12^2- 1) = 298
=> 298 + (14^2 - 1) = 493
=> 493 + (162 - 1) = 748
=> 748 + (182 - 1) = 1071
=> 1071 + (202 - 1) = 1470
Therefore The wrong term is 1069.

Q38. Answer: (b) 45

Given:
25, 200, 45, 320, 64, 512
Calculation:
=> 25 × 8 = 200

=> 200 ÷ 5 = 40
=> 40 × 8 = 320
=> 320 ÷ 5 = 64
=> 64 × 8 = 512
Therefore The wrong term is 45.

Q39. Answer: (b) 432

Given:
119, 138, 195, 290, 432, 594
Calculation:
=> 119 + 19 × 1 = 138
=> 138 + 19 × 3 = 195
=> 195 + 19 × 5 = 290
=> 290 + 19 × 7 = 423
=> 423 + 19 × 9 = 594.
Therefore The wrong term is 432.

Q40. Answer: (b) 27 minutes

Shortcut Trick
Let efficiencies of typists be x and y. Total work = 18(x + y).
Work done: 9x + 18y = 2/3 of 18(x + y) => 9x + 18y = 12x + 12y.
=> 6y = 3x => x = 2y. Ratio of efficiencies x : y = 2 : 1.
Total Work = 18 × (2 + 1) = 54 units.
Time for faster typist (x) = 54 ÷ 2 = 27 minutes.
Therefore The correct answer is 27 min.
Alternate Method

Person	Time (min)	Total Work (W)	Efficiency
Typist 1 + 2	18	W	W/18

Given: First typist works for 9 min, Second for 18 min, remaining work is 1/3.
=> Work completed = 1 − 1/3 = 2/3 of total work.
=> Let efficiency of first typist be a and second be b.
=> Total Work = 18(a + b)
=> 9a + 18b = (2/3) × 18(a + b)
=> 9a + 18b = 12a + 12b
=> 18b − 12b = 12a − 9a
=> 6b = 3a => a = 2b (First typist is faster)
=> Total Work = 18(2b + b) = 18 × 3b = 54b
=> Time for faster typist = 54b ÷ 2b = 27 minutes.
Therefore The correct answer is 27 min.
Additional Information
Efficiency and Time Relation
Efficiency is inversely proportional to time taken. If the ratio of efficiencies is a : b, then the ratio of time taken is b : a.
Combined Work Formula
If two people with efficiencies E1 and E2 work together for T days, the Total Work = T × (E1 + E2).

Q41. Answer: (b) 1800

Shortcut Trick
Students passed in only Political Science = Total passed in Pol. Science − passed in Both
Percentage in only Pol. Science = 72% − 35% = 37%
Given, 37% of N = 666
N = 666 ÷ 37 × 100 = 18 × 100 = 1800
Therefore The correct answer is 1800 students.

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Alternate Method
Given:
Passed in History H = 59%
Passed in Political Science P = 72%
Passed in Both (H ∩ P) = 35%
Number of students passed in only Political Science = 666
Calculations:
=> Percentage of students passed in only Political Science = P − (H ∩ P)
=> Percentage = 72% − 35% = 37%
=> According to the question, 37% of N = 666
=> (37/100) × N = 666
=> N = (666 × 100) ÷ 37
=> N = 18 × 100
=> N = 1800
Therefore The correct answer is 1800 students.
Additional Information
Venn Diagram Principle
For two sets A and B, n(A U B) = n(A) + n(B) − n(A ∩ B). This represents students who passed in at least one subject.
Only One Subject Calculation
To find only A, subtract the intersection from total A: n(only A) = n(A) − n(A ∩ B).
Failed in Both Subjects
Percentage failed in both subjects = 100% − [Percentage passed in at least one subject].

Q42. Answer: (c) 378

General Solution:
College A:
Total number of students (Male + Female) participated in exam = 1100
Number of males participated in exam = 1100/11 × 7 = 700
Number of females participated in exam = (1100 - 700) = 400
Percentage of students failed in exam = 1100 × (30/100) = 330
Number females failed in exam = 330 - 210 = 120
Number of males passed in exam = 700 - 210 = 490
Number of females passed in exam = 400 - 120 = 280
College B:
Total number of students (Male + Female) participated in exam = 900
Number of males participated in exam = 900/3 × 2 = 600
Number of females participated in exam = (900 - 600) = 300
Percentage of students failed in exam = 900 × (40/100) = 360
Number females failed in exam = 360 - 240 = 120
Number of males passed in exam = 600 - 240 = 360
Number of females passed in exam = 300 - 120 = 180
College C:
Total number of students (Male + Female) participated in exam = 1400
Number of males participated in exam = 1400/3 × 4 = 800
Number of females participated in exam = (1400 - 800) = 600
Percentage of students failed in exam = 1140 × (50/100) = 700
Number females failed in exam = 700 - 500 = 200
Number of males passed in exam = 800 - 500 = 300
Number of females passed in exam = 600 - 200 = 400
College D:
Total number of students (Male + Female) participated in exam = 1400
Number of males participated in exam = 1400/28 × 17 = 850

Number of females participated in exam = (1400 - 850) = 550
Percentage of students failed in exam = 1400 × (45/100) = 630
Number females failed in exam = 630 - 255 = 375
Number of males passed in exam = 850 - 255 = 595
Number of females passed in exam = 550 - 375 = 175
College E:
Total number of students (Male + Female) participated in exam = 1600
Number of males participated in exam = 1600/16 × 9 = 900
Number of females participated in exam = (1600 - 900) = 700
Percentage of students failed in exam = 1600 × (60/100) = 960
Number females failed in exam = 960 - 450 = 510
Number of males passed in exam = 900 - 450 = 450
Number of females passed in exam = 700 - 510 = 190

College	Number of males passed in exam	Number of female passed in exam	Number of males failed in exam	Number of female failed in exam
A	490	280	210	120
B	360	180	240	120
C	300	400	500	200
D	595	175	255	375
E	450	190	450	510

Solution:
Number of males who passed in college A = 490
Number of male who passed in college A passed in distinction = 490 × (3/7) = 210
Number of females passed in college A = 280
Number of females who passed in college A in distinction = (280 × 3/5) = 168
Required total = (210 + 168) = 378

Q43. Answer: (d) 60

General Solution:
College A:
Total number of students (Male + Female) participated in exam = 1100
Number of males participated in exam = 1100/11 × 7 = 700
Number of females participated in exam = (1100 - 700) = 400
Percentage of students failed in exam = 1100 × (30/100) = 330
Number females failed in exam = 330 - 210 = 120
Number of males passed in exam = 700 - 210 = 490
Number of females passed in exam = 400 - 120 = 280
College B:
Total number of students (Male + Female) participated in exam = 900
Number of males participated in exam = 900/3 × 2 = 600
Number of females participated in exam = (900 - 600) = 300
Percentage of students failed in exam = 900 × (40/100) = 360
Number females failed in exam = 360 - 240 = 120
Number of males passed in exam = 600 - 240 = 360
Number of females passed in exam = 300 - 120 = 180
College C:
Total number of students (Male + Female) participated in exam = 1400
Number of males participated in exam = 1400/3 × 4 = 800
Number of females participated in exam = (1400 - 800) = 600
Percentage of students failed in exam = 1140 × (50/100) = 700

Number females failed in exam = 700 - 500 = 200
Number of males passed in exam = 800 - 500 = 300
Number of females passed in exam = 600 - 200 = 400
College D:
Total number of students (Male + Female) participated in exam = 1400
Number of males participated in exam = 1400/28 × 17 = 850
Number of females participated in exam = (1400 - 850) = 550
Percentage of students failed in exam = 1400 × (45/100) = 630
Number females failed in exam = 630 - 255 = 375
Number of males passed in exam = 850 - 255 = 595
Number of females passed in exam = 550 - 375 = 175
College E:
Total number of students (Male + Female) participated in exam = 1600
Number of males participated in exam = 1600/16 × 9 = 900
Number of females participated in exam = (1600 - 900) = 700
Percentage of students failed in exam = 1600 × (60/100) = 960
Number females failed in exam = 960 - 450 = 510
Number of males passed in exam = 900 - 450 = 450
Number of females passed in exam = 700 - 510 = 190

College	Number of males passed in exam	Number of female passed in exam	Number of males failed in exam	Number of female failed in exam
A	490	280	210	120
B	360	180	240	120
C	300	400	500	200
D	595	175	255	375
E	450	190	450	510

Solution:
Number of males failed in college B = 240
Number of females failed in college B = 120
Number of males failed in college B increased by 30% = 240 × (130/100) = 312
Number of females failed in college B increased by 40% = 120 × (140/100) = 168
Total students passed in the college B = 540
Required difference = 540 - 480 = 60

Q44. Answer: (c) 79%

General Solution:
College A:
Total number of students (Male + Female) participated in exam = 1100
Number of males participated in exam = 1100/11 × 7 = 700
Number of females participated in exam = (1100 - 700) = 400
Percentage of students failed in exam = 1100 × (30/100) = 330
Number females failed in exam = 330 - 210 = 120
Number of males passed in exam = 700 - 210 = 490
Number of females passed in exam = 400 - 120 = 280
College B:
Total number of students (Male + Female) participated in exam = 900
Number of males participated in exam = 900/3 × 2 = 600
Number of females participated in exam = (900 - 600) = 300
Percentage of students failed in exam = 900 × (40/100) = 360
Number females failed in exam = 360 - 240 = 120

Number of males passed in exam = 600 - 240 = 360
Number of females passed in exam = 300 - 120 = 180
College C:
Total number of students (Male + Female) participated in exam = 1400
Number of males participated in exam = 1400/3 × 4 = 800
Number of females participated in exam = (1400 - 800) = 600
Percentage of students failed in exam = 1140 × (50/100) = 700
Number females failed in exam = 700 - 500 = 200
Number of males passed in exam = 800 - 500 = 300
Number of females passed in exam = 600 - 200 = 400
College D:
Total number of students (Male + Female) participated in exam = 1400
Number of males participated in exam = 1400/28 × 17 = 850
Number of females participated in exam = (1400 - 850) = 550
Percentage of students failed in exam = 1400 × (45/100) = 630
Number females failed in exam = 630 - 255 = 375
Number of males passed in exam = 850 - 255 = 595
Number of females passed in exam = 550 - 375 = 175
College E:
Total number of students (Male + Female) participated in exam = 1600
Number of males participated in exam = 1600/16 × 9 = 900
Number of females participated in exam = (1600 - 900) = 700
Percentage of students failed in exam = 1600 × (60/100) = 960
Number females failed in exam = 960 - 450 = 510
Number of males passed in exam = 900 - 450 = 450
Number of females passed in exam = 700 - 510 = 190

College	Number of males passed in exam	Number of female passed in exam	Number of males failed in exam	Number of female failed in exam
A	490	280	210	120
B	360	180	240	120
C	300	400	500	200
D	595	175	255	375
E	450	190	450	510

Solution:
Number of male students passed in college D = 595
Number of female students passed in college D = 175
3/5 of number of males passed in college D = 595 × 3/5 = 357
4/5 of number of females passed in college D = 175 × (4/5) = 140
Total students failed in college D = (255 + 375) = 630
Required percentage = (357 + 140)/630 × 100= 78.89%~ 79%

Q45. Answer: (b) 75: 59

General Solution:
College A:
Total number of students (Male + Female) participated in exam = 1100
Number of males participated in exam = 1100/11 × 7 = 700
Number of females participated in exam = (1100 - 700) = 400
Percentage of students failed in exam = 1100 × (30/100) = 330
Number females failed in exam = 330 - 210 = 120
Number of males passed in exam = 700 - 210 = 490

Number of females passed in exam = 400 - 120 = 280
College B:
Total number of students (Male + Female) participated in exam = 900
Number of males participated in exam = 900/3 × 2 = 600
Number of females participated in exam = (900 - 600) = 300
Percentage of students failed in exam = 900 × (40/100) = 360
Number females failed in exam = 360 - 240 = 120
Number of males passed in exam = 600 - 240 = 360
Number of females passed in exam = 300 - 120 = 180
College C:
Total number of students (Male + Female) participated in exam = 1400
Number of males participated in exam = 1400/3 × 4 = 800
Number of females participated in exam = (1400 - 800) = 600
Percentage of students failed in exam = 1140 × (50/100) = 700
Number females failed in exam = 700 - 500 = 200
Number of males passed in exam = 800 - 500 = 300
Number of females passed in exam = 600 - 200 = 400
College D:
Total number of students (Male + Female) participated in exam = 1400
Number of males participated in exam = 1400/28 × 17 = 850
Number of females participated in exam = (1400 - 850) = 550
Percentage of students failed in exam = 1400 × (45/100) = 630
Number females failed in exam = 630 - 255 = 375
Number of males passed in exam = 850 - 255 = 595
Number of females passed in exam = 550 - 375 = 175
College E:
Total number of students (Male + Female) participated in exam = 1600
Number of males participated in exam = 1600/16 × 9 = 900
Number of females participated in exam = (1600 - 900) = 700
Percentage of students failed in exam = 1600 × (60/100) = 960
Number females failed in exam = 960 - 450 = 510
Number of males passed in exam = 900 - 450 = 450
Number of females passed in exam = 700 - 510 = 190

College	Number of males passed in exam	Number of female passed in exam	Number of males failed in exam	Number of female failed in exam
A	490	280	210	120
B	360	180	240	120
C	300	400	500	200
D	595	175	255	375
E	450	190	450	510

Solution:
Number of males passed in college C = 300
Number of males passed in college E = 450
Number of females passed in college C = 400
Number of females passed in college E = 190
Required ratio = (450 + 300): (400 + 190) = 750: 590 = 75: 59

Q46. Answer: (c) 66

General Solution:
College A:

Total number of students (Male + Female) participated in exam = 1100
Number of males participated in exam = 1100/11 × 7 = 700
Number of females participated in exam = (1100 - 700) = 400
Percentage of students failed in exam = 1100 × (30/100) = 330
Number females failed in exam = 330 - 210 = 120
Number of males passed in exam = 700 - 210 = 490
Number of females passed in exam = 400 - 120 = 280
College B:
Total number of students (Male + Female) participated in exam = 900
Number of males participated in exam = 900/3 × 2 = 600
Number of females participated in exam = (900 - 600) = 300
Percentage of students failed in exam = 900 × (40/100) = 360
Number females failed in exam = 360 - 240 = 120
Number of males passed in exam = 600 - 240 = 360
Number of females passed in exam = 300 - 120 = 180
College C:
Total number of students (Male + Female) participated in exam = 1400
Number of males participated in exam = 1400/3 × 4 = 800
Number of females participated in exam = (1400 - 800) = 600
Percentage of students failed in exam = 1140 × (50/100) = 700
Number females failed in exam = 700 - 500 = 200
Number of males passed in exam = 800 - 500 = 300
Number of females passed in exam = 600 - 200 = 400
College D:
Total number of students (Male + Female) participated in exam = 1400
Number of males participated in exam = 1400/28 × 17 = 850
Number of females participated in exam = (1400 - 850) = 550
Percentage of students failed in exam = 1400 × (45/100) = 630
Number females failed in exam = 630 - 255 = 375
Number of males passed in exam = 850 - 255 = 595
Number of females passed in exam = 550 - 375 = 175
College E:
Total number of students (Male + Female) participated in exam = 1600
Number of males participated in exam = 1600/16 × 9 = 900
Number of females participated in exam = (1600 - 900) = 700
Percentage of students failed in exam = 1600 × (60/100) = 960
Number females failed in exam = 960 - 450 = 510
Number of males passed in exam = 900 - 450 = 450
Number of females passed in exam = 700 - 510 = 190

College	Number of males passed in exam	Number of female passed in exam	Number of males failed in exam	Number of female failed in exam
A	490	280	210	120
B	360	180	240	120
C	300	400	500	200
D	595	175	255	375
E	450	190	450	510

Solution:
Number of males who failed in all the college = (210 + 240 + 500 + 255 + 450)/5 = 331
Number of females who failed in all the college = (120 + 120 + 200 + 375 + 510)/5 = 265

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Required difference = (331 - 265) = 66

Q47. Answer: (e) 41.25

Shortcut Trick

Initial average of 4 people (A, B, C, D) = 40 inches.

New average with E = 41 inches (increased by 1).

Height of E = 41 + (4 × 1) = 45 inches.

New average of (B, C, D, E, F) = 42 inches.

Sum of (B, C, D, F) = (Sum of B, C, D, E, F) − Height of E = (42 × 5) − 45 = 210 − 45 = 165 inches.

Average of (B, C, D, F) = 165 ÷ 4 = 41.25 inches.

Therefore The correct answer is 41.25 inches.

Alternate Method

Given:

Average height (A+B+C+D) = 40 inches

Average height (A+B+C+D+E) = 41 inches

Average height (B+C+D+E+F) = 42 inches

Calculations:

=> Total height (A+B+C+D) = 40 × 4 = 160 inches

=> Total height (A+B+C+D+E) = 41 × 5 = 205 inches

=> Height of E = 205 − 160 = 45 inches

=> Total height (B+C+D+E+F) = 42 × 5 = 210 inches

=> Total height (B+C+D+F) = Total (B+C+D+E+F) − E = 210 − 45 = 165 inches

=> Average height (B+C+D+F) = 165 ÷ 4 = 41.25 inches

Therefore The correct answer is 41.25 inches.

Additional Information

Average Calculation

Average = Sum of observations ÷ Number of observations.

Inclusion/Exclusion Rule

Value of new person = New Average + (Old Count × Change in Average).

Weighted Average

Total Sum = Sum1 + Sum2. Combined Average = (n1 × A1 + n2 × A2) ÷ (n1 + n2).

Q48. Answer: (d) 5 litres

Shortcut Trick

Initial ratio Alcohol : Water = 1 : 4. Total units = 5.

After removing 2/3, remaining mixture is 1/3 of Y. Ratio stays 1 : 4.

In remaining part: Alcohol = 1x, Water = 4x. Add 250 ml water → 1x / (4x + 250) = 4 / 19.

=> 19x = 16x + 1000 => 3x = 1000 => x = 1000/3 ml.

Remaining mixture = 5x = 5000/3 ml. Original Y = 3 × (5000/3) = 5000 ml.

Therefore The correct answer is 5 litres.

Alternate Method

Given: Initial Ratio = 1 : 4, Removed = 2/3, Added Water = 250 ml, Final Ratio = 4 : 19.

=> Let remaining mixture (Y/3) consist of Alcohol = a and Water = 4a.

=> New Alcohol : New Water = a : (4a + 250) = 4 : 19

=> 19 × a = 4 × (4a + 250)

=> 19a = 16a + 1000

=> 3a = 1000 ml => a = 1000/3 ml

=> Total remaining mixture (Y/3) = a + 4a = 5a

=> Y/3 = 5 × (1000/3) = 5000/3 ml

=> Y = 5000 ml = 5 litres

Therefore The correct answer is 5 litres.

Additional Information

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Mixture Withdrawal Rule

When a part of a mixture is removed, the ratio of components in the remaining mixture remains the same as the initial ratio.

Alligation Method

Used to find the ratio in which two ingredients are mixed to produce a desired concentration: (Cheaper) : (Dearer) = (d−m) : (m−c).

Replacement Formula

Final Quantity = Initial Quantity × $(1 - x/V)^n$, where x is quantity replaced, V is total volume, and n is number of operations.

Q49. Answer: (d) 24781

Concept:

Follow BODMAS rule to solve this question, as per the order given below,

Step-1: Parts of an equation enclosed in Brackets must be solved first, and in the bracket, the BODMAS rule must be followed,

Step-2: Any mathematical Of or Exponent must be solved next,

Step-3: Next, the parts of the equation that contain Division and Multiplication are calculated

Step-4: Last but not least, the parts of the equation that contain Addition and Subtraction should be calculated.

Calculation:

211 + 111 × 210 + 630 × 2 = ?

=> 211 + 23310 + 1260 = ?

=> ? = 24781

Q50. Answer: (b) 50

Follow BODMAS rule to solve this question, as per the order given below.

Step - 1: Parts of an equation enclosed in 'Brackets' must be solved first, and following BODMAS rule in the bracket -

Step - 2: Any mathematical 'Of' or 'Exponent' must be solved next.

Step - 3: Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated.

Step - 4: Last but not the least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.

Since, we need to find out the approximate value, we can write these values to their nearest integers.

Given expression is

121.98 – [70.98 + {4.14 – (4.98 – (22.98 – 21.12))}] = ?

=> 122 – [71 + {4 – (5 – (23 – 21))}] = ?

=> 122 – [71 + {4 – (5 – 2)}] = ?

=> 122 – [71 + {4 – 3}] = ?

=> 122 – [71 + 1] = ?

=> 122 – 72 = ?

=> 50 = ?

Q51. Answer: (d) 243

Concept:

Follow BODMAS rule to solve this question, as per the order given below.

Step - 1: Parts of an equation enclosed in 'Brackets' must be solved first, and following BODMAS rule in the bracket -

Step - 2: Any mathematical 'Of' or 'Exponent' must be solved next.

Step - 3: Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated.

Step - 4: Last but not the least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.

Calculation:

Writing the approximate values to the nearest integer

(65% of 400 + 33 × 22 – 743) = ?

? = (65/100 × 400 + 726 – 743)

= 260 + 726 – 743

= 243

Q52. Answer: (e) 5

Follow the BODMAS rule to solve this question, as per the order given below.

Step - 1: Parts of an equation enclosed in 'Brackets' must be solved first, and following BODMAS rule in the bracket -

Step - 2: Any mathematical 'Of' or 'Exponent' must be solved next.

Step - 3: Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated.
Step - 4: Last but not the least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.
Since we need to find out the approximate value, we can write these values to their nearest integers.
Given Expression.
49.9% of 499.9 × 19.9% of 99.9 ÷ ? = 49.9% of 1999.9
=> 50% of 500 × 20% of 100 ÷ ? = 50% of 2000
=> 250 × 20 ÷ ? = 1000
=> ? = 5

Q53. Answer: (a) 285

Follow BODMAS rule to solve this question, as per the order given below.
Step - 1: Parts of an equation enclosed in 'Brackets' must be solved first, and following BODMAS rule in the bracket -
Step - 2: Any mathematical 'Of' or 'Exponent' must be solved next.
Step - 3: Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated.
Step - 4: Last but not the least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.
Since, we need to find out the approximate value, we can write these values to their nearest integers.
Given expression is
34.98% of 799.99 + 64.95% of 199.98 = ? + 49.99% of 249.99
=> 35% of 800 + 65% of 200 = ? + 50% of 250
=> 280 + 130 = ? + 125
=> 410 = ? + 125
Therefore ? = 285

Q54. Answer: (e) 3 : 1

Shortcut Trick
Time ratio (Upstream : Downstream) = 2 : 1
Speed ratio (Upstream : Downstream) = 1 : 2 (Inverse of time)
Ratio of Still Water Speed : Current Speed = (D + U) : (D − U)
Ratio = (2 + 1) : (2 − 1) = 3 : 1
Therefore The correct answer is 3 : 1.
Alternate Method
Given: Time taken upstream (A to B) = 2 × Time taken downstream (B to A).
Formula Used: Speed = Distance ÷ Time; Upstream Speed (U) = u − v; Downstream Speed (D) = u + v.
=> Let speed of boat in still water = u and speed of current = v.
=> Distance (d) is constant, so (u − v) × 2t = (u + v) × t.
=> 2u − 2v = u + v
=> 2u − u = v + 2v
=> u = 3v
=> u : v = 3 : 1
Therefore The correct answer is 3 : 1.
Additional Information
Upstream and Downstream Speed
Downstream Speed (D) = u + v and Upstream Speed (U) = u − v, where u is boat speed and v is current speed.
Still Water Speed Calculation
The speed of the boat in still water (u) is the average of downstream and upstream speeds: u = (D + U) ÷ 2.
Current Speed Calculation
The speed of the current (v) is half the difference between downstream and upstream speeds: v = (D − U) ÷ 2.

Q55. Answer: (e) 4,50,000

Shortcut Trick
Effective CI for 2 years at 30% = 30 + 30 + (30 × 30)/100 = 69%
Effective SI for 2 years at 15% = 15 × 2 = 30%
Let investments be 200u and 500u. Interest X = 200 × 69% = 138u; Interest Y = 500 × 30% = 150u

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Difference = 150u − 138u = 12u → 10800. So, 1u = 900

Investment in Scheme Y = 500 × 900 = 4,50,000

Therefore The correct answer is 4,50,000.

Alternate Method

Given: Ratio of investment X : Y = 2 : 5, Time = 2 years, Rate X = 30% (CI), Rate Y = 15% (SI), Difference in Interest = Rs. 10800.

Formula Used: CI = P[(1 + r/100)^t − 1]; SI = (P × R × T) / 100

=> Let Investment in X = 200k and Y = 500k

=> Interest from X = 200k × [(1 + 30/100)² − 1] = 200k × [1.69 − 1] = 200k × 0.69 = 138k

=> Interest from Y = (500k × 15 × 2) / 100 = 150k

=> Difference = 150k − 138k = 12k

=> 12k = 10800

=> k = 900

=> Investment in Scheme Y = 500 × 900 = 4,50,000

Therefore The correct answer is 4,50,000.

Additional Information

Effective Rate for Compound Interest

For 2 years at rate r%, the effective CI rate is given by the formula (2r + r²/100)%.

Simple Interest vs Compound Interest

Simple Interest is calculated only on the principal, while Compound Interest is calculated on the principal plus the accumulated interest of previous periods.

Difference for 2 years

For the same principal and rate, the difference between CI and SI for 2 years is P × (R/100)².

Q56. Answer: (a) 744

General solution:

Company A:

Total number of metallic and nonmetallic products manufactured = 3000 × (22/100) = 660

Number of metallic products manufactured = 1200 × (17/100) = 204

Number of non- metallic products manufactured = (660 - 204) = 456

Company B:

Total number of metallic and nonmetallic products manufactured = 3000 × (18/100) = 540

Number of metallic products manufactured = 1200 × (13/100) = 156

Number of non- metallic products manufactured = (540 - 156) = 384

Company C:

Total number of metallic and nonmetallic products manufactured = 3000 × (24/100) = 720

Number of metallic products manufactured = 1200 × (20/100) = 240

Number of non- metallic products manufactured = (720 - 240) = 480

Company D:

Total number of metallic and nonmetallic products manufactured = 3000 × (16/100) = 480

Number of metallic products manufactured = 1200 × (26/100) = 312

Number of non- metallic products manufactured = (480 - 312) = 168

Company E:

Total number of metallic and nonmetallic products manufactured = 3000 × (20/100) = 600

Number of metallic products manufactured = 1200 × (24/100) = 288

Number of non- metallic products manufactured = (600 - 288) = 312

Company	Number of metallic products	Number of non metallic products
A	204	456
B	156	384
C	240	480
D	312	168

E	288	312

Solution:

Number of metallic products manufactured by company C = 240 × (150/100) = 360

Number of non metallic products manufactured by company C = 480 × (80/100) = 384

Number of products manufactured = (360 + 384) = 744

Q57. Answer: (d) 8

General solution:

Company A:

Total number of metallic and nonmetallic products manufactured = 3000 × (22/100) = 660

Number of metallic products manufactured = 1200 × (17/100) = 204

Number of non- metallic products manufactured = (660 - 204) = 456

Company B:

Total number of metallic and nonmetallic products manufactured = 3000 × (18/100) = 540

Number of metallic products manufactured = 1200 × (13/100) = 156

Number of non- metallic products manufactured = (540 - 156) = 384

Company C:

Total number of metallic and nonmetallic products manufactured = 3000 × (24/100) = 720

Number of metallic products manufactured = 1200 × (20/100) = 240

Number of non- metallic products manufactured = (720 - 240) = 480

Company D:

Total number of metallic and nonmetallic products manufactured = 3000 × (16/100) = 480

Number of metallic products manufactured = 1200 × (26/100) = 312

Number of non- metallic products manufactured = (480 - 312) = 168

Company E:

Total number of metallic and nonmetallic products manufactured = 3000 × (20/100) = 600

Number of metallic products manufactured = 1200 × (24/100) = 288

Number of non- metallic products manufactured = (600 - 288) = 312

Company	Number of metallic products	Number of non metallic products
A	204	456
B	156	384
C	240	480
D	312	168
E	288	312

Solution:

Number of metallic products manufactured by company D = 312

Number of non metallic products manufactured by company D = 168

(312 + x)/(168 - x) = 2/1

312 + x = 336 - 2x

3x = 24

x = 8

Q58. Answer: (d) 20%

General solution:

Company A:

Total number of metallic and nonmetallic products manufactured = 3000 × (22/100) = 660

Number of metallic products manufactured = 1200 × (17/100) = 204

Number of non- metallic products manufactured = (660 - 204) = 456

Company B:

Total number of metallic and nonmetallic products manufactured = 3000 × (18/100) = 540
Number of metallic products manufactured = 1200 × (13/100) = 156
Number of non- metallic products manufactured = (540 - 156) = 384
Company C:
Total number of metallic and nonmetallic products manufactured = 3000 × (24/100) = 720
Number of metallic products manufactured = 1200 × (20/100) = 240
Number of non- metallic products manufactured = (720 - 240) = 480
Company D:
Total number of metallic and nonmetallic products manufactured = 3000 × (16/100) = 480
Number of metallic products manufactured = 1200 × (26/100) = 312
Number of non- metallic products manufactured = (480 - 312) = 168
Company E:
Total number of metallic and nonmetallic products manufactured = 3000 × (20/100) = 600
Number of metallic products manufactured = 1200 × (24/100) = 288
Number of non- metallic products manufactured = (600 - 288) = 312

Company	Number of metallic products	Number of non metallic products
A	204	456
B	156	384
C	240	480
D	312	168
E	288	312

Solution:
Number of metallic products made by company A = 204
Number of metallic products made by company B = 156
Total nonmetallic in all the companies = (3000 - 1200) = 1800
Required percentage = (204 + 156) = 360/1800 × 100 = 20%

Q59. Answer: (b) 478

General solution:
Company A:
Total number of metallic and nonmetallic products manufactured = 3000 × (22/100) = 660
Number of metallic products manufactured = 1200 × (17/100) = 204
Number of non- metallic products manufactured = (660 - 204) = 456
Company B:
Total number of metallic and nonmetallic products manufactured = 3000 × (18/100) = 540
Number of metallic products manufactured = 1200 × (13/100) = 156
Number of non- metallic products manufactured = (540 - 156) = 384
Company C:
Total number of metallic and nonmetallic products manufactured = 3000 × (24/100) = 720
Number of metallic products manufactured = 1200 × (20/100) = 240
Number of non- metallic products manufactured = (720 - 240) = 480
Company D:
Total number of metallic and nonmetallic products manufactured = 3000 × (16/100) = 480
Number of metallic products manufactured = 1200 × (26/100) = 312
Number of non- metallic products manufactured = (480 - 312) = 168
Company E:
Total number of metallic and nonmetallic products manufactured = 3000 × (20/100) = 600
Number of metallic products manufactured = 1200 × (24/100) = 288
Number of non- metallic products manufactured = (600 - 288) = 312

Company	Number of metallic products	Number of non metallic products
A	204	456
B	156	384
C	240	480
D	312	168
E	288	312

Solution:

Number of metallic products manufactured by company A = 204

Number of defective metallic products manufactured by company A= 204/3 = 68

Number of non - metallic products manufactured by company A = 456

Number of defective non - metallic products manufactured by company A = 456/4 = 114

Number of non - defective products manufactured by company A = (204 - 68) + (456 - 114) = (136 + 342) = 478

Q60. Answer: (c) 5: 4

General solution:

Company A:

Total number of metallic and nonmetallic products manufactured = 3000 × (22/100) = 660

Number of metallic products manufactured = 1200 × (17/100) = 204

Number of non- metallic products manufactured = (660 - 204) = 456

Company B:

Total number of metallic and nonmetallic products manufactured = 3000 × (18/100) = 540

Number of metallic products manufactured = 1200 × (13/100) = 156

Number of non- metallic products manufactured = (540 - 156) = 384

Company C:

Total number of metallic and nonmetallic products manufactured = 3000 × (24/100) = 720

Number of metallic products manufactured = 1200 × (20/100) = 240

Number of non- metallic products manufactured = (720 - 240) = 480

Company D:

Total number of metallic and nonmetallic products manufactured = 3000 × (16/100) = 480

Number of metallic products manufactured = 1200 × (26/100) = 312

Number of non- metallic products manufactured = (480 - 312) = 168

Company E:

Total number of metallic and nonmetallic products manufactured = 3000 × (20/100) = 600

Number of metallic products manufactured = 1200 × (24/100) = 288

Number of non- metallic products manufactured = (600 - 288) = 312

Company	Number of metallic products	Number of non metallic products
A	204	456
B	156	384
C	240	480
D	312	168
E	288	312

Solution:

Number of metallic products manufactured by company D = 312

NUmber of metallic products manufactured by company E = 288

Number of metallic products manufactured by company D = 168

Number of metallic products manufactured by company E = 312

Required ratio = (312 + 288): (168 + 312) = (600:480) = 5: 4

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Q61. Answer: (b) A, 3000

Shortcut Trick

Total Casting Votes = 80% of 25000 = 20000.

Ratio of votes (A : B : C) = 8 : 7 : 5. Total ratio units = 8 + 7 + 5 = 20 units.

Value of 1 unit = 20000 ÷ 20 = 1000 votes.

Winner is A (8 units) and Second runner-up is C (5 units).

Difference (A − C) = (8 − 5) × 1000 = 3000 votes.

Therefore The correct answer is A, 3000.

Alternate Method

Given → Total Voters = 25000 | Non-voters = 20% | Ratio A:B:C = 8:7:5.

Formulas: Casting Votes = Total × (100 − Non-voter%) ÷ 100 | Difference = (Ratio Diff ÷ Total Ratio) × Total Casting.

=> Casting Votes = 25000 − (20% of 25000) = 25000 − 5000 = 20000.

=> Ratio components: A = 8x, B = 7x, C = 5x.

=> 8x + 7x + 5x = 20x = 20000 => x = 1000.

=> Winner is A because he has the highest ratio (8 units).

=> Second runner-up is C (5 units). Note: B is the first runner-up.

=> Difference = A − C = 8000 − 5000 = 3000.

Therefore The correct answer is A, 3000.

Additional Information

Election Terminology

Winner: The candidate with the maximum number of votes. Runner-up: The candidate with the second-highest votes. Second Runner-up: The candidate with the third-highest votes.

Ratio Distribution

To find an individual share: Share = (Individual Ratio ÷ Sum of Ratios) × Total Quantity.

Q62. Answer: (a) 12 cm

Shortcut Trick

Circumference 44 cm → Radius = 7 cm (Standard circle ratio 7 : 44).

Length = 2 × 7 + 2 = 16 cm.

Breadth = Area ÷ Length = 192 ÷ 16 = 12 cm.

Side of Triangle = Breadth − 8 = 12 − 8 = 4 cm.

Perimeter = 3 × 4 = 12 cm.

Therefore The correct answer is 12 cm.

Alternate Method

Given: Area of rectangle = 192 cm^2, Circumference of circle = 44 cm.

Formula Used: Circumference = $2\pi r$; Area = L × B; Perimeter of Triangle = 3a.

=> 2 × (22/7) × r = 44

=> r = 7 cm

=> Length (L) = 2r + 2 = 2(7) + 2 = 16 cm

=> Breadth (B) = Area ÷ L = 192 ÷ 16 = 12 cm

=> Side of triangle (a) = B − 8 = 12 − 8 = 4 cm

=> Perimeter = 3 × a = 3 × 4 = 12 cm

Therefore The correct answer is 12 cm.

Additional Information

Equilateral Triangle Properties

All sides are equal (a) and Area = $(\sqrt{3}/4) \times a^2$. Height h = $(\sqrt{3}/2) \times a$.

Circle Relations

Area = πr^2. For r = 7, Circumference = 44 and Area = 154.

Rectangle Perimeter

Perimeter = 2(L + B). Diagonal d = $\sqrt{(L^2 + B^2)}$.

Q63. Answer: (b) Statements I and II together are required to answer the question.

Combining statements I and II:

Suppose quantities of milk and honey initially were 5a and 4a respectively.

According to the given statements

(4a + 9) = 45

=> a = 9

=> Quantity of milk initially = 45 litres

Quantity of honey initially = 36 litres

Now,

(45 + x) : 45 = 7 : 5

=> x = 18

Therefore Statements I and II together are required to answer the question.

Q64. Answer: (d) Either statement I or statement II alone is sufficient to answer the question.

Statement I:

Number of males in town B is 11520 which is 80% of the number of females in town A.

=> Number of females in town A = 11520/0.8 = 14400

There are 4880 more males in town A as compared to town B.

Number of males in town A = 11520 + 4880 = 16400

=> Total population of town A = 14400 + 16400 = 30800

Statement II:

The ratio of number of males and females in town A is 41 : 36 and difference of number of males and females is 2000.

Suppose number of males and females in town A are 41x and 36x respectively.

=> 41x – 36x = 2000

=> 5x = 2000

=> x = 400

=> Total population of town A = 41x + 36x = 77x = 30800

Therefore Either statement I or statement II alone is sufficient to answer the question.

Q65. Answer: (c) Statement I alone is sufficient to answer the question.

Statement I:

Volume of the cuboid = lbh

Let length be 3x, breadth be 4x, height be 2x

5184 = 3x × 4x × 2x

=> 5184 = $24x^3$

=> 216 = x^3

=> x = 6

Length = 18 cm, Breadth = 24 cm, Height = 12 cm

Total Surface Area of cuboid = 2 (lb + bh + hl)

=> 2 × (18 × 24 + 24 × 12 + 12 × 18)

=> 2 × (432 + 288 + 216)

=> 1872 cm^2

Statement II:

Total surface area of the upper and lower faces of the cuboid is 864 cm^2

2lb = 864

=> lb = 432

height (h) = 12 cm

Now,

Total Surface Area of cuboid = 2 (lb + bh + hl)

We can’t find the total surface area as we do not have the values of length and breadth.

Therefore Statement I alone is sufficient to answer the question.

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Q66. Answer: (d) the one who likes Polo

1) The one who likes Hiking is not the senior person but two designations senior to Tejas. Vyas is junior to Tejas. The one who likes Hiking is two designations senior to the one who likes Archery.

	Case 1	Case 2	Case 3			
Designation	Person	Game	Person	Game	Person	Game
General Manager						
Deputy General Manager		Hiking		Hiking		
Manager						Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery		
Probationary Officer	Vyas				Tejas	Archery
Clerk			Vyas		Vyas	

2) Jubal, who likes Polo is junior to the one who likes Surfing. Jubal is not at the Manager designation. The position of the person who likes Surfing cannot be fixed at this point.

	Case 1	Case 2	Case 3	Case 4				
Designation	Person	Game	Person	Game	Person	Game	Person	Game
General Manager								
Deputy General Manager		Hiking		Hiking			Jubal	Polo
Manager						Hiking		Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery	Jubal	Polo		
Probationary Officer	Vyas		Jubal	Polo	Tejas	Archery	Tejas	Archery
Clerk	Jubal	Polo	Vyas		Vyas		Vyas	

3) The one who likes Fencing is just senior to Avyan. In Case 4, this condition cannot be satisfied which is why Case 4 is eliminated.

	Case 1	Case 2	Case 3(a)	Case 3(b)				
Designation	Person	Game	Person	Game	Person	Game	Person	Game
General Manager		Fencing		Fencing				Fencing
Deputy General Manager	Avyan	Hiking	Avyan	Hiking		Fencing	Avyan	
Manager					Avyan	Hiking		Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery	Jubal	Polo	Jubal	Polo
Probationary Officer	Vyas		Jubal	Polo	Tejas	Archery	Tejas	Archery
Clerk	Jubal	Polo	Vyas		Vyas		Vyas	

4) Kelvin is just junior to Avyan but does not like Surfing. Jubal, who likes Polo is junior to the one who likes Surfing. The one who likes Rugby is not a Manager.

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These conditions are not satisfied in Case 1, Case 2, and Case 3(a) which is why Case 1, Case 2, and Case 3(a) are eliminated.

The final arrangement is:

Designation	Person	Game
General Manager	Prince	Fencing
Deputy General Manager	Avyan	Surfing
Manager	Kelvin	Hiking
Assistant Manager	Jubal	Polo
Probationary Officer	Tejas	Archery
Clerk	Vyas	Rugby

Hence, The one who likes Polo (Jubal) is immediate senior to the person who likes Archery.

Q67. Answer: (e) Only III

1) The one who likes Hiking is not the senior person but two designations senior to Tejas. Vyas is junior to Tejas. The one who likes Hiking is two designations senior to the one who likes Archery.

	Case 1	Case 2	Case 3			
Designation	Person	Game	Person	Game	Person	Game
General Manager						
Deputy General Manager		Hiking		Hiking		
Manager						Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery		
Probationary Officer	Vyas				Tejas	Archery
Clerk			Vyas		Vyas	

2) Jubal, who likes Polo is junior to the one who likes Surfing. Jubal is not at the Manager designation. The position of the person who likes Surfing cannot be fixed at this point.

	Case 1	Case 2	Case 3	Case 4				
Designation	Person	Game	Person	Game	Person	Game	Person	Game
General Manager								
Deputy General Manager		Hiking		Hiking			Jubal	Polo
Manager						Hiking		Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery	Jubal	Polo		
Probationary Officer	Vyas		Jubal	Polo	Tejas	Archery	Tejas	Archery
Clerk	Jubal	Polo	Vyas		Vyas		Vyas	

3) The one who likes Fencing is just senior to Avyan. In Case 4, this condition cannot be satisfied which is why Case 4 is eliminated.

	Case 1	Case 2	Case 3(a)	Case 3(b)				
Designation	Person	Game	Person	Game	Person	Game	Person	Game

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General Manager		Fencing		Fencing				Fencing
Deputy General Manager	Avyan	Hiking	Avyan	Hiking		Fencing	Avyan	
Manager					Avyan	Hiking		Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery	Jubal	Polo	Jubal	Polo
Probationary Officer	Vyas		Jubal	Polo	Tejas	Archery	Tejas	Archery
Clerk	Jubal	Polo	Vyas		Vyas		Vyas	

4) Kelvin is just junior to Avyan but does not like Surfing. Jubal, who likes Polo is junior to the one who likes Surfing. The one who likes Rugby is not a Manager.

These conditions are not satisfied in Case 1, Case 2, and Case 3(a) which is why Case 1, Case 2, and Case 3(a) are eliminated.

The final arrangement is:

Designation	Person	Game
General Manager	Prince	Fencing
Deputy General Manager	Avyan	Surfing
Manager	Kelvin	Hiking
Assistant Manager	Jubal	Polo
Probationary Officer	Tejas	Archery
Clerk	Vyas	Rugby

Hence, Only III statement is true.

Q68. Answer: (a) Probationary Officer

1) The one who likes Hiking is not the senior person but two designations senior to Tejas. Vyas is junior to Tejas. The one who likes Hiking is two designations senior to the one who likes Archery.

	Case 1	Case 2	Case 3			
Designation	Person	Game	Person	Game	Person	Game
General Manager						
Deputy General Manager		Hiking		Hiking		
Manager						Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery		
Probationary Officer	Vyas				Tejas	Archery
Clerk			Vyas		Vyas	

2) Jubal, who likes Polo is junior to the one who likes Surfing. Jubal is not at the Manager designation. The position of the person who likes Surfing cannot be fixed at this point.

	Case 1	Case 2	Case 3	Case 4				
Designation	Person	Game	Person	Game	Person	Game	Person	Game
General Manager								

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Deputy General Manager		Hiking		Hiking			Jubal	Polo
Manager						Hiking		Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery	Jubal	Polo		
Probationary Officer	Vyas		Jubal	Polo	Tejas	Archery	Tejas	Archery
Clerk	Jubal	Polo	Vyas		Vyas		Vyas	

3) The one who likes Fencing is just senior to Avyan. In Case 4, this condition cannot be satisfied which is why Case 4 is eliminated.

	Case 1	**Case 2**	**Case 3(a)**	**Case 3(b)**				
Designation	Person	Game	Person	Game	Person	Game	Person	Game
General Manager		Fencing		Fencing				Fencing
Deputy General Manager	Avyan	Hiking	Avyan	Hiking		Fencing	Avyan	
Manager					Avyan	Hiking		Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery	Jubal	Polo	Jubal	Polo
Probationary Officer	Vyas		Jubal	Polo	Tejas	Archery	Tejas	Archery
Clerk	Jubal	Polo	Vyas		Vyas		Vyas	

4) Kelvin is just junior to Avyan but does not like Surfing. Jubal, who likes Polo is junior to the one who likes Surfing. The one who likes Rugby is not a Manager.

These conditions are not satisfied in Case 1, Case 2, and Case 3(a) which is why Case 1, Case 2, and Case 3(a) are eliminated.

The final arrangement is:

Designation	**Person**	**Game**
General Manager	Prince	Fencing
Deputy General Manager	Avyan	Surfing
Manager	Kelvin	Hiking
Assistant Manager	Jubal	Polo
Probationary Officer	Tejas	Archery
Clerk	Vyas	Rugby

Hence, The one who likes Archery has a Probationary Officer designation.

Q69. Answer: (b) Hiking

1) The one who likes Hiking is not the senior person but two designations senior to Tejas. Vyas is junior to Tejas. The one who likes Hiking is two designations senior to the one who likes Archery.

	Case 1	**Case 2**	**Case 3**			
Designation	Person	Game	Person	Game	Person	Game
General Manager						
Deputy General Manager		Hiking		Hiking		

Manager						Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery		
Probationary Officer	Vyas				Tejas	Archery
Clerk			Vyas		Vyas	

2) Jubal, who likes Polo is junior to the one who likes Surfing. Jubal is not at the Manager designation. The position of the person who likes Surfing cannot be fixed at this point.

	Case 1	**Case 2**	**Case 3**	**Case 4**			
Designation	Person	Game	Person	Game	Person	Game	Person	Game
General Manager								
Deputy General Manager		Hiking		Hiking			Jubal	Polo
Manager						Hiking		Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery	Jubal	Polo		
Probationary Officer	Vyas		Jubal	Polo	Tejas	Archery	Tejas	Archery
Clerk	Jubal	Polo	Vyas		Vyas		Vyas	

3) The one who likes Fencing is just senior to Avyan. In Case 4, this condition cannot be satisfied which is why Case 4 is eliminated.

	Case 1	**Case 2**	**Case 3(a)**	**Case 3(b)**				
Designation	Person	Game	Person	Game	Person	Game	Person	Game
General Manager		Fencing		Fencing				Fencing
Deputy General Manager	Avyan	Hiking	Avyan	Hiking		Fencing	Avyan	
Manager					Avyan	Hiking		Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery	Jubal	Polo	Jubal	Polo
Probationary Officer	Vyas		Jubal	Polo	Tejas	Archery	Tejas	Archery
Clerk	Jubal	Polo	Vyas		Vyas		Vyas	

4) Kelvin is just junior to Avyan but does not like Surfing. Jubal, who likes Polo is junior to the one who likes Surfing. The one who likes Rugby is not a Manager.

These conditions are not satisfied in Case 1, Case 2, and Case 3(a) which is why Case 1, Case 2, and Case 3(a) are eliminated.

The final arrangement is:

Designation	**Person**	**Game**
General Manager	Prince	Fencing
Deputy General Manager	Avyan	Surfing
Manager	Kelvin	Hiking
Assistant Manager	Jubal	Polo

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Probationary Officer	Tejas	Archery
Clerk	Vyas	Rugby

Hence, Kelvin likes Hiking.

Q70. Answer: (d) The one who is just senior to Deputy General Manager

1) The one who likes Hiking is not the senior person but two designations senior to Tejas. Vyas is junior to Tejas. The one who likes Hiking is two designations senior to the one who likes Archery.

	Case 1	**Case 2**	**Case 3**			
Designation	Person	Game	Person	Game	Person	Game
General Manager						
Deputy General Manager		Hiking		Hiking		
Manager						Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery		
Probationary Officer	Vyas				Tejas	Archery
Clerk			Vyas		Vyas	

2) Jubal, who likes Polo is junior to the one who likes Surfing. Jubal is not at the Manager designation. The position of the person who likes Surfing cannot be fixed at this point.

	Case 1	**Case 2**	**Case 3**	**Case 4**				
Designation	Person	Game	Person	Game	Person	Game	Person	Game
General Manager								
Deputy General Manager		Hiking		Hiking			Jubal	Polo
Manager						Hiking		Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery	Jubal	Polo		
Probationary Officer	Vyas		Jubal	Polo	Tejas	Archery	Tejas	Archery
Clerk	Jubal	Polo	Vyas		Vyas		Vyas	

3) The one who likes Fencing is just senior to Avyan. In Case 4, this condition cannot be satisfied which is why Case 4 is eliminated.

	Case 1	**Case 2**	**Case 3(a)**	**Case 3(b)**				
Designation	Person	Game	Person	Game	Person	Game	Person	Game
General Manager		Fencing		Fencing				Fencing
Deputy General Manager	Avyan	Hiking	Avyan	Hiking		Fencing	Avyan	
Manager					Avyan	Hiking		Hiking
Assistant Manager	Tejas	Archery	Tejas	Archery	Jubal	Polo	Jubal	Polo

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Probationary Officer	Vyas		Jubal	Polo	Tejas	Archery	Tejas	Archery
Clerk	Jubal	Polo	Vyas		Vyas		Vyas	

4) Kelvin is just junior to Avyan but does not like Surfing. Jubal, who likes Polo is junior to the one who likes Surfing. The one who likes Rugby is not a Manager.

These conditions are not satisfied in Case 1, Case 2, and Case 3(a) which is why Case 1, Case 2, and Case 3(a) are eliminated.

The final arrangement is:

Designation	Person	Game
General Manager	Prince	Fencing
Deputy General Manager	Avyan	Surfing
Manager	Kelvin	Hiking
Assistant Manager	Jubal	Polo
Probationary Officer	Tejas	Archery
Clerk	Vyas	Rugby

Hence, The one who is just senior to the Deputy General Manager(Prince) is the person who has Fencing its hobby.

Q71. Answer: (a) R

Given word: "CATEGORICAL"

The First letter is 'C', the third letter is 'T', the seventh letter is 'R', and the tenth letter is 'A' from the left end.

A meaningful four-letter English word is:

1) CART means a vehicle with two or four wheels that is pulled by a horse and is used for transporting things.

Thus, only one word can be formed.

Hence, R is the third letter from the left end of that word.

Q72. Answer: (b) Only II

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

Conclusion:

I. All Policies are Cheques. → False (No such relation could be concluded from the given statements.)

II. All Banknotes being Policy is a possibility. → True (If all banknotes are policy then also some Cheques are not Policy.)

Another possible Venn diagram:

Hence, Only II follows.

Q73. Answer: (d) Both I and II follows

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

Conclusion:

I. All Key being Helmet is a possibility. → True (It is given that only a few Helmet is Key but with this information, we cannot say that some keys are not Helmet. So, All Key being Helmet is a possibility.)

Another possible Venn diagram:

II. Some Helmets are not Wallet. → True (Some Helmets that are shoes are not Wallets.)

Hence, Both I and II follow.

Q74. Answer: (b) Neither I nor II

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

Conclusion:

I. Some Clock is definitely not Glue. → False (No such relation could be established from the given information.)

II. All Desks are Ruler. → False (No such relation could be established from the given information.)

Hence, Neither I nor II is true.

Q75. Answer: (c) F and U

1) Not less than three persons sit to the right of R. The one, who sits opposite R, sits immediately to the left of B. Three persons sit between B and G.

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2) The one, who sits opposite to G, sits second to the right of S. U is sitting second to the left of S. U is not sitting at the extreme end. U is opposite to the one who sits immediately left of E.

In Case 3, U would be sitting at the extreme end which contradicts the given condition which is why Case 3 is eliminated.

3) A and D are immediate neighbors. D does not sit opposite to R. F sits second to the right of A.

4) Two persons sit between R and Q. T sits neither opposite to C nor E. V sits second to the right of T.

The final arrangement is:

All except F and U are sitting opposite to each other. Hence, F and U do not belong to that group.

Q76. Answer: (e) The one who is sitting immediately left of G

1) Not less than three persons sit to the right of R. The one, who sits opposite R, sits immediately to the left of B. Three persons sit between B and G.

2) The one, who sits opposite to G, sits second to the right of S. U is sitting second to the left of S. U is not sitting at the extreme end. U is opposite to the one who sits immediately left of E.

In Case 3, U would be sitting at the extreme end which contradicts the given condition which is why Case 3 is eliminated.

3) A and D are immediate neighbors. D does not sit opposite to R. F sits second to the right of A.

4) Two persons sit between R and Q. T sits neither opposite to C nor E. V sits second to the right of T.

The final arrangement is:

Hence, The one who is sitting immediately left of G (C) sits at the left end in row 2.

Q77. Answer: (c) D

1) Not less than three persons sit to the right of R. The one, who sits opposite R, sits immediately to the left of B. Three persons sit between B and G.

2) The one, who sits opposite to G, sits second to the right of S. U is sitting second to the left of S. U is not sitting at the extreme end. U is opposite to the one who sits immediately left of E.

In Case 3, U would be sitting at the extreme end which contradicts the given condition which is why Case 3 is eliminated.

3) A and D are immediate neighbors. D does not sit opposite to R. F sits second to the right of A.

4) Two persons sit between R and Q. T sits neither opposite to C nor E. V sits second to the right of T.

The final arrangement is:

One person is sitting between T and R. Hence, The number of persons seated between T and R is same as the number of persons seated between G and D.

Q78. Answer: (d) S

1) Not less than three persons sit to the right of R. The one, who sits opposite R, sits immediately to the left of B. Three persons sit between B and G.

2) The one, who sits opposite to G, sits second to the right of S. U is sitting second to the left of S. U is not sitting at the extreme end. U is opposite to the one who sits immediately left of E.

In Case 3, U would be sitting at the extreme end which contradicts the given condition which is why Case 3 is eliminated.

3) A and D are immediate neighbors. D does not sit opposite to R. F sits second to the right of A.

4) Two persons sit between R and Q. T sits neither opposite to C nor E. V sits second to the right of T.

The final arrangement is:

Hence, S is seated third to the right of P.

Q79. Answer: (d) Four

1) Not less than three persons sit to the right of R. The one, who sits opposite R, sits immediately to the left of B. Three persons sit between B and G.

2) The one, who sits opposite to G, sits second to the right of S. U is sitting second to the left of S. U is not sitting at the extreme end. U is opposite to the one who sits immediately left of E.

In Case 3, U would be sitting at the extreme end which contradicts the given condition which is why Case 3 is eliminated.

3) A and D are immediate neighbors. D does not sit opposite to R. F sits second to the right of A.

4) Two persons sit between R and Q. T sits neither opposite to C nor E. V sits second to the right of T.

The final arrangement is:

Hence, Four persons are seated between C and the one who faces U.

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Q80. Answer: (b) One

Given Word: "PRODUCT"

Forward Pair: RU

Backward Pair: -

Hence, One pair of letters is the correct option.

Q81. Answer: (c) Only I

Statement: T = U > K > I > V > P < W; L > M ≥ N ≥ O > S; Q < S < V

Conclusion:

I. Q < U → True (As Q < S < V, T = U > K > I > V. So, Q < V < U)

II. S > P → False (As S < V >P, So, S > P is not true)

Hence, Only I is true.

Q82. Answer: (e) Only II

Statement: A > B ≥ C ≥ D > E; D < F ≤ G ≤ H; I=F>J

Conclusion:

I. C > G → False (As C ≥ D < F ≤ G, So, C > G is false.)

II. I ≤ H → True (As I = F, F ≤ G ≤ H. So, I ≤ H is true)

Hence, Only II is true.

Q83. Answer: (b) Both I and II

Statement: J > H < I < U < O; O ≤ K ≤ M; I ≥ F > R

Conclusion:

I. M > H → True (As H < I < U < O; O ≤ K ≤ M. So, M > H)

II. R < U → True (As I ≥ F > R; I < U. So, R < U)

Hence, Both I and II are true.

Q84. Answer: (c) The one who is sitting immediately left of Pakhi

1) Only one person sits between Mehr and the one who likes Plum (either from the left or right side). The one who likes Apple sits immediately right of the one who likes Plum.

2) Pakhi is second to the left of the one who likes Apple. Only two persons sit between Sanvi who likes Mango and Geet. Geet does not like Apple.

3) The one who likes Guava sits immediately right of the one who likes Kiwi.

4) Naina is neither an immediate neighbor of Mehr nor likes Apple. Only fruit Cherry need to be placed. So, we will place it in Case 1 and Case 2 where no fruit has been allotted.

5) The one who likes Cherry does not sit second to the left of Naina. Case 2 is eliminated as it contradicts the given condition.

The final arrangement is:

Hence, The one who is sitting immediately left of Pakhi (Mehr) is sitting third to the right of Riya.

Q85. Answer: (e) Sanvi-Mango

1) Only one person sits between Mehr and the one who likes Plum (either from the left or right side). The one who likes Apple sits immediately right of the one who likes Plum.

2) Pakhi is second to the left of the one who likes Apple. Only two persons sit between Sanvi who likes Mango and Geet. Geet does not like Apple.

3) The one who likes Guava sits immediately right of the one who likes Kiwi.

4) Naina is neither an immediate neighbor of Mehr nor likes Apple. Only fruit Cherry need to be placed. So, we will place it in Case 1 and Case 2 where no fruit has been allotted.

5) The one who likes Cherry does not sit second to the left of Naina. Case 2 is eliminated as it contradicts the given condition.

The final arrangement is:

Sanvi likes Mango. Hence, Sanvi-Mango is true combination.

Q86. Answer: (a) Geet

1) Only one person sits between Mehr and the one who likes Plum (either from the left or right side). The one who likes Apple sits immediately right of the one who likes Plum.

2) Pakhi is second to the left of the one who likes Apple. Only two persons sit between Sanvi who likes Mango and Geet. Geet

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does not like Apple.

3) The one who likes Guava sits immediately right of the one who likes Kiwi.

4) Naina is neither an immediate neighbor of Mehr nor likes Apple. Only fruit Cherry need to be placed. So, we will place it in Case 1 and Case 2 where no fruit has been allotted.

5) The one who likes Cherry does not sit second to the left of Naina. Case 2 is eliminated as it contradicts the given condition.

The final arrangement is:

Hence, Geet sits immediately left of Riya.

Q87. Answer: (e) The one who likes Guava

1) Only one person sits between Mehr and the one who likes Plum (either from the left or right side). The one who likes Apple sits immediately right of the one who likes Plum.

2) Pakhi is second to the left of the one who likes Apple. Only two persons sit between Sanvi who likes Mango and Geet. Geet does not like Apple.

3) The one who likes Guava sits immediately right of the one who likes Kiwi.

4) Naina is neither an immediate neighbor of Mehr nor likes Apple. Only fruit Cherry need to be placed. So, we will place it in Case 1 and Case 2 where no fruit has been allotted.

5) The one who likes Cherry does not sit second to the left of Naina. Case 2 is eliminated as it contradicts the given condition.

The final arrangement is:

Hence, The one who likes Guava (Pakhi) sits between the one who likes Plum and Mehr when counted from the right of Mehr.

Q88. Answer: (c) The one who likes Cherry

1) Only one person sits between Mehr and the one who likes Plum (either from the left or right side). The one who likes Apple sits immediately right of the one who likes Plum.

2) Pakhi is second to the left of the one who likes Apple. Only two persons sit between Sanvi who likes Mango and Geet. Geet does not like Apple.

3) The one who likes Guava sits immediately right of the one who likes Kiwi.

4) Naina is neither an immediate neighbor of Mehr nor likes Apple. Only fruit Cherry need to be placed. So, we will place it in Case 1 and Case 2 where no fruit has been allotted.

5) The one who likes Cherry does not sit second to the left of Naina. Case 2 is eliminated as it contradicts the given condition.

The final arrangement is:

Hence, The one who likes Cherry sits opposite of the person who likes Guava.

Q89. Answer: (e) MNPT

Logic: The difference between the place value of the first and second letters from the left side is 1. The difference between the place value of the second and third letters from the left side is 2. The difference between the place value of the third and fourth letters from the left side is 3.

Option 1: JKMP → The difference between the place value of J and K is 1. (J = 10, K = 11, 11 - 10 = 1)

The difference between the place value of K and M is 2. (K = 11, M = 13, 13 - 11 = 2)

The difference between the place value of M and P is 3. (M = 13, P = 16, 16 - 13 = 3)

Option 2: PQSV → The difference between the place value of P and Q is 1. (P = 16, Q = 17, 17 - 16 = 1)

The difference between the place value of Q and S is 2. (Q = 17, S = 19, 19 - 17 = 2)

The difference between the place value of S and V is 3. (S = 19, V = 22, 22 - 19 = 3)

Option 3: TUWZ → The difference between the place value of T and U is 1. (T = 20, U = 21, 21 - 20 = 1)

The difference between the place value of U and W is 2. (U = 21, W = 23, 23 - 21 = 2)

The difference between the place value of W and Z is 3. (W = 23, Z = 26, 26 - 23 = 3)

Option 4: FGIL → The difference between the place value of F and G is 1. (F = 6, G = 7, 7 - 6 = 1)

The difference between the place value of G and I is 2. (G = 7, I = 9, 9 - 7 = 2)

The difference between the place value of I and L is 3. (I = 9, L = 12, 12 - 9 = 3)

Option 5: MNPT → The difference between the place value of M and N is 1. (M = 13, N = 14, 14 - 13 = 1)

The difference between the place value of N and P is 2. (N = 14, P = 16, 16 - 14 = 2)

The difference between the place value of P and T is 4. (P = 16, T = 20, 20 - 16 = 4)

Hence, MNPT is the odd one out.

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Q90. Answer: (b) Flat B on Floor 1

1) Kabir lives three floors above Ved and both live in different flats. Parth lives just below Kabir's floor.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kabir	Kabir	
4		Kabir	Kabir			Parth	Parth	
3		Parth	Parth					
2					Ved			Ved
1	Ved			Ved				

2) More than one-floor gap is between Ved and Izaan. Izzan does not live on an even number of floors.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Izzan			Izzan	Izzan	Kabir	Kabir	Izzan
4		Kabir	Kabir			Parth	Parth	
3		Parth	Parth					
2					Ved			Ved
1	Ved			Ved				

3) Manav lives just north-west of Arush.In Case 2 this condition cannot be satisfied which is why Case 2 is eliminated. Sahil lives just above the floor on which Manav lives.

	Case 1(a)	Case1(b)	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Izzan		Izzan		Izzan	Kabir	Kabir	Izzan
4		Kabir	Sahil	Kabir	Sahil	Parth	Parth	
3	Sahil	Parth	Manav	Parth	Manav		Sahil	
2	Manav			Arush	Ved	Arush	Manav	Ved
1	Ved	Arush	Ved					Arush

4) Jai lives to the west of Ritvik whose floor is below Uday's floor. This condition is not satisfied in Case 1(a), Case 1(b), and Case 4 which is why Case 1(a), Case 1(b), and Case 4 are eliminated.

Hence, the final arrangement is:

Floor	Flat A	Flat B
5	Izzan	Kabir
4	Sahil	Parth
3	Manav	Uday
2	Ved	Arush
1	Jai	Ritvik

Hence, Ritvik lives in Flat B on Floor 1.

Q91. Answer: (d) Kabir

1) Kabir lives three floors above Ved and both live in different flats. Parth lives just below Kabir's floor.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B

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5						Kabir	Kabir	
4		Kabir	Kabir			Parth	Parth	
3		Parth	Parth					
2					Ved			Ved
1	Ved			Ved				

2) More than one-floor gap is between Ved and Izaan. Izzan does not live on an even number of floors.

	Case 1	**Case 2**	**Case 3**	**Case 4**				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Izzan			Izzan	Izzan	Kabir	Kabir	Izzan
4		Kabir	Kabir			Parth	Parth	
3		Parth	Parth					
2					Ved			Ved
1	Ved			Ved				

3) Manav lives just north-west of Arush.In Case 2 this condition cannot be satisfied which is why Case 2 is eliminated. Sahil lives just above the floor on which Manav lives.

	Case 1(a)	**Case1(b)**	**Case 3**	**Case 4**				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Izzan		Izzan		Izzan	Kabir	Kabir	Izzan
4		Kabir	Sahil	Kabir	Sahil	Parth	Parth	
3	Sahil	Parth	Manav	Parth	Manav		Sahil	
2	Manav			Arush	Ved	Arush	Manav	Ved
1	Ved	Arush	Ved					Arush

4) Jai lives to the west of Ritvik whose floor is below Uday's floor. This condition is not satisfied in Case 1(a), Case 1(b), and Case 4 which is why Case 1(a), Case 1(b), and Case 4 are eliminated.

Hence, the final arrangement is:

Floor	**Flat A**	**Flat B**
5	Izzan	Kabir
4	Sahil	Parth
3	Manav	Uday
2	Ved	Arush
1	Jai	Ritvik

Hence, Kabir lives to the right of Izaan.

Q92. Answer: (c) Sahil

1) Kabir lives three floors above Ved and both live in different flats. Parth lives just below Kabir's floor.

	Case 1	**Case 2**	**Case 3**	**Case 4**				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kabir	Kabir	
4		Kabir	Kabir			Parth	Parth	
3		Parth	Parth					
2					Ved			Ved

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1	Ved			Ved				

2) More than one-floor gap is between Ved and Izaan. Izzan does not live on an even number of floors.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Izzan			Izzan	Izzan	Kabir	Kabir	Izzan
4		Kabir	Kabir			Parth	Parth	
3		Parth	Parth					
2					Ved			Ved
1	Ved			Ved				

3) Manav lives just north-west of Arush.In Case 2 this condition cannot be satisfied which is why Case 2 is eliminated. Sahil lives just above the floor on which Manav lives.

	Case 1(a)	Case1(b)	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Izzan		Izzan		Izzan	Kabir	Kabir	Izzan
4		Kabir	Sahil	Kabir	Sahil	Parth	Parth	
3	Sahil	Parth	Manav	Parth	Manav		Sahil	
2	Manav			Arush	Ved	Arush	Manav	Ved
1	Ved	Arush	Ved					Arush

4) Jai lives to the west of Ritvik whose floor is below Uday's floor. This condition is not satisfied in Case 1(a), Case 1(b), and Case 4 which is why Case 1(a), Case 1(b), and Case 4 are eliminated.

Hence, the final arrangement is:

Floor	Flat A	Flat B
5	Izzan	Kabir
4	Sahil	Parth
3	Manav	Uday
2	Ved	Arush
1	Jai	Ritvik

All except Sahil belong to Flat B. Hence, Sahil does not belong to the group.

Q93. Answer: (d) Three

1) Kabir lives three floors above Ved and both live in different flats. Parth lives just below Kabir's floor.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kabir	Kabir	
4		Kabir	Kabir			Parth	Parth	
3		Parth	Parth					
2					Ved			Ved
1	Ved			Ved				

2) More than one-floor gap is between Ved and Izaan. Izzan does not live on an even number of floors.

	Case 1	Case 2	Case 3	Case 4				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B

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5	Izzan			Izzan	Izzan	Kabir	Kabir	Izzan
4		Kabir	Kabir			Parth	Parth	
3		Parth	Parth					
2					Ved			Ved
1	Ved			Ved				

3) Manav lives just north-west of Arush.In Case 2 this condition cannot be satisfied which is why Case 2 is eliminated. Sahil lives just above the floor on which Manav lives.

	Case 1(a)	**Case1(b)**	**Case 3**	**Case 4**				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Izzan		Izzan		Izzan	Kabir	Kabir	Izzan
4		Kabir	Sahil	Kabir	Sahil	Parth	Parth	
3	Sahil	Parth	Manav	Parth	Manav		Sahil	
2	Manav			Arush	Ved	Arush	Manav	Ved
1	Ved	Arush	Ved					Arush

4) Jai lives to the west of Ritvik whose floor is below Uday's floor. This condition is not satisfied in Case 1(a), Case 1(b), and Case 4 which is why Case 1(a), Case 1(b), and Case 4 are eliminated.

Hence, the final arrangement is:

Floor	**Flat A**	**Flat B**
5	Izzan	Kabir
4	Sahil	Parth
3	Manav	Uday
2	Ved	Arush
1	Jai	Ritvik

Hence, Three Floors are between Kabir and Jai.

Q94. Answer: (a) Ved

1) Kabir lives three floors above Ved and both live in different flats. Parth lives just below Kabir’s floor.

	Case 1	**Case 2**	**Case 3**	**Case 4**				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5						Kabir	Kabir	
4		Kabir	Kabir			Parth	Parth	
3		Parth	Parth					
2					Ved			Ved
1	Ved			Ved				

2) More than one-floor gap is between Ved and Izaan. Izzan does not live on an even number of floors.

	Case 1	**Case 2**	**Case 3**	**Case 4**				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Izzan			Izzan	Izzan	Kabir	Kabir	Izzan
4		Kabir	Kabir			Parth	Parth	
3		Parth	Parth					
2					Ved			Ved

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1	Ved			Ved				

3) Manav lives just north-west of Arush.In Case 2 this condition cannot be satisfied which is why Case 2 is eliminated. Sahil lives just above the floor on which Manav lives.

	Case 1(a)	**Case1(b)**	**Case 3**	**Case 4**				
Floor	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B	Flat A	Flat B
5	Izzan		Izzan		Izzan	Kabir	Kabir	Izzan
4		Kabir	Sahil	Kabir	Sahil	Parth	Parth	
3	Sahil	Parth	Manav	Parth	Manav		Sahil	
2	Manav			Arush	Ved	Arush	Manav	Ved
1	Ved	Arush	Ved					Arush

4) Jai lives to the west of Ritvik whose floor is below Uday's floor. This condition is not satisfied in Case 1(a), Case 1(b), and Case 4 which is why Case 1(a), Case 1(b), and Case 4 are eliminated.

Hence, the final arrangement is:

Floor	**Flat A**	**Flat B**
5	Izzan	Kabir
4	Sahil	Parth
3	Manav	Uday
2	Ved	Arush
1	Jai	Ritvik

Hence, Ved lives in Flat A on Floor 2.

Q95. Answer: (d) 32 meter

1) Badri started walking from Point G in the south direction after walking 6 meters to reach Point H. From there take a left turn and walked 21 meters to reach Point I. From there he turns left and walks 5 meters to reach point L. From there he took a left turn and walked 16 meters to reach Point M.

2) From there he took a right turn and walked 3 meters to react to Point N. From Point N he took a left turn and walked 15 meters to reach Point O. From O he took a right turn and walked for 12 meters to reach Point P. From P he takes a left turn and walks 5 meters to reach Point Q.

According to the information given in the question we can draw the figure below:

Hence, the distance traveled by Badri to reach Point L from Point G is 32 meters.

Q96. Answer: (a) South-West

1) Badri started walking from Point G in the south direction after walking 6 meters to reach Point H. From there take a left turn and walked 21 meters to reach Point I. From there he turns left and walks 5 meters to reach point L. From there he took a left turn and walked 16 meters to reach Point M.

2) From there he took a right turn and walked 3 meters to react to Point N. From Point N he took a left turn and walked 15 meters to reach Point O. From O he took a right turn and walked for 12 meters to reach Point P. From P he takes a left turn and walks 5 meters to reach Point Q.

According to the information given in the question we can draw the figure below:

Hence, Point H is in the South-West direction to N.

Q97. Answer: (c) 13 meter, North West

1) Badri started walking from Point G in the south direction after walking 6 meters to reach Point H. From there take a left turn and walked 21 meters to reach Point I. From there he turns left and walks 5 meters to reach point L. From there he took a left turn and walked 16 meters to reach Point M.

2) From there he took a right turn and walked 3 meters to react to Point N. From Point N he took a left turn and walked 15 meters to reach Point O. From O he took a right turn and walked for 12 meters to reach Point P. From P he takes a left turn and walks 5 meters to reach Point Q.

According to the information given in the question we can draw the figure below:

According to Pythagoras Theorem,

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The shortest distance between O and Q is:

√ {(12)2 + (5)2} =

√(144+25) = √169

=13 meters

Hence, Point Q is 13 meters away and is in the NorthWest direction of O.

Q98. Answer: (e) T

1) K is sitting second to the left of W, which is adjacent to X. Two persons are sitting between X and Z.

2) One person is sitting between K and J. This condition is not satisfied in Case 2, So, Case 2 is eliminated. No one is sitting between Y and J, who is seated third from the left end of the row. Y is not sitting next to K.

3) The Prime number of persons between W and Z. In Case 1, one person is sitting between W and Z. One is not a prime number which is why Case 1 is eliminated.

4) The number of persons sitting to the right of Z is one more than the number of people sitting to J's left. Z sits to the immediate left of T.

The final arrangement is:

Hence, T sits fourth to the right of X.

Q99. Answer: (d) 14

1) K is sitting second to the left of W, which is adjacent to X. Two persons are sitting between X and Z.

2) One person is sitting between K and J. This condition is not satisfied in Case 2, So, Case 2 is eliminated. No one is sitting between Y and J, who is seated third from the left end of the row. Y is not sitting next to K.

3) The Prime number of persons between W and Z. In Case 1, one person is sitting between W and Z. One is not a prime number which is why Case 1 is eliminated.

4) The number of persons sitting to the right of Z is one more than the number of people sitting to J's left. Z sits to the immediate left of T.

The final arrangement is:

Hence, Fourteen (14) persons are sitting in the row.

Q100. Answer: (b) Second to the left

1) K is sitting second to the left of W, which is adjacent to X. Two persons are sitting between X and Z.

2) One person is sitting between K and J. This condition is not satisfied in Case 2, So, Case 2 is eliminated. No one is sitting between Y and J, who is seated third from the left end of the row. Y is not sitting next to K.

3) The Prime number of persons between W and Z. In Case 1, one person is sitting between W and Z. One is not a prime number which is why Case 1 is eliminated.

4) The number of persons sitting to the right of Z is one more than the number of people sitting to J's left. Z sits to the immediate left of T.

The final arrangement is:

Hence, J is second to the left of K.

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