

IBPS PO 2023 Mains Memory Based Paper (Nov 05, 2023)

Read the given information carefully and answer the questions based on it:

There is a matrix containing 4 rows (I, II, III and IV) top to bottom and 4 columns (I, II, III and IV) left to right. A meaningful word will be formed only when we go left to right in a row and top to bottom in a column.

Condition:

- No letters are repeated more than twice in the whole grid.
- Alphabets are coded as A-1, B-2, C-3, D-4, Y-25, Z-26.
- Cell value of a particular cell (Row r , Column c) = (positional value of the letter in that cell) + (row number) + (column number), where $I=1$, $II=2$, $III=3$, $IV=4$ for both rows and columns.
- Row/Column total = sum of the four cell values in that row/column.

4-letter meaningful words have to be formed in each column:

In column I: positions I, III, IV contain letters G, L, D respectively.

In column II: positions I, II, III contain letters R, I, D respectively.

In column III: positions II, III, IV contain letters E, N, U respectively.

In column IV: position III contains the letter S. Additionally, the total value of Column IV is 77.

Ques. 1. Which alphabet will come in Row II, Column I to make the meaningful word of Column I?

1. N
2. O
3. P
4. M
5. None of the above

Correct Option - 2

Ques. 2. What is the difference between the total value of Row III and the total value of Column II?

1. 15
2. 17
3. 19
4. 21
5. None of the above

Correct Option - 2

Ques. 3. Which meaningful word is formed in Column III (read top to bottom)?

1. MEAN
2. MINE
3. MENU
4. MUTE
5. None of the above

Correct Option - 3

Ques. 4. What is the sum of the positional value of the letter in (Row I, Column III) and the letter in (Row IV, Column II)?

1. 16
2. 18
3. 20
4. 22
5. None of the above

Correct Option - 2

In a certain code language, each phrase below is coded into code-words that are listed in the same left-to-right order as the words of the phrase (i.e., the first code-word corresponds to the first word, the second code-word to the second word, and so on). The same word always gets the same code across statements.

Statement I: "market price is high" is coded as "qz qw fm ty"

Statement II: "demand falls quickly today" is coded as "bn dl xr ce"

Statement III: "high demand price falls" is coded as "ty bn qw dl"

The question below consists of a question and three statements numbered I, II and III given below it. You have to decide whether the data given in the statements are sufficient to answer the question or not.

Ques. 5. What is the code for "price"?

1. If data in statement I alone is sufficient
2. If data in statement III alone is sufficient
3. If data either in statement I alone or in statement III alone is sufficient
4. If data in all statements i.e., I, II and III even together is not sufficient
5. If data in all statements i.e., I, II and III together is sufficient

Correct Option - 3

Study the following information carefully and answer the questions given below:

Twelve people - N, O, P, Q, R, S, T, U, V, W, X and Y - live in a twelve-flat arrangement spread over a five-floor building. The bottommost floor is Floor 1 and the topmost is Floor 5. Each floor has four flats - J, K, L and M - arranged from west to east in that fixed order. Only 12 of the 20 (floor, flat) slots are occupied; the remaining 8 are vacant. At least two but not more than three people live on each floor. No two vacant flats are adjacent to each other - 'adjacent' meaning immediately west/east on the same floor, or immediately above/below in the same flat-column on consecutive floors.

Exactly three people live on the topmost floor, and W lives in flat J on that floor. X lives on the same floor as W, with only one person living to the east of X; Y lives immediately east of X. Exactly three people also live on the bottommost floor. N lives in flat J on that floor, and exactly two people live to the east of N. P lives immediately west of the vacant flat on the bottommost floor, while O lives somewhere between N and P. Q lives on the floor immediately above N's floor, and both the immediate west and immediate east neighbours of Q's flat are vacant. R lives on the same floor as Q. On the floor immediately above Q's floor, exactly two people live - one in flat J and the other in flat L - with the flat between them lying vacant. T lives in the same flat-column as Y, with exactly one vacant flat lying between T and Y. U lives directly below X (in the same flat-column), and V lives on U's floor with exactly one vacant flat separating U and V.

Ques. 6. How many people live above U's flat in the same flat-column (J/K/L/M)?

1. None

2. One
3. Two
4. Three
5. Four

Correct Option - 2

Ques. 7. Who among the following lives in flat L on floor 3?

1. S
2. T
3. U
4. Q
5. R

Correct Option - 2

Ques. 8. Which among the following statements is NOT true?

1. R lives on the same floor as Q
2. Exactly two vacant flats lie on floor 4
3. P lives to the west of O on the bottommost floor
4. Y lives immediately west of the vacant flat on the topmost floor
5. V lives in flat M on floor 4

Correct Option - 3

Ques. 9. Four of the following five persons live in flat K on their respective floors and thus form a group. Which one does not belong to that group?

1. O
2. Q
3. U
4. X
5. T

Correct Option - 5

Using the following rule - take the 2nd letter of the 1st word, the 3rd letter of the 2nd word, the 1st letter of the 3rd word, and the 4th letter of the 4th word (in that order) - from each option's four words to form a new word. Then which of the following options does NOT give a meaningful word?

Ques. 10. PLUG, BEAT, KIND, CANE

SMOG, CHIP, NAIL, LACE

ARMY, SHOP, SAND, TIME

CRAB, SPIN, GNAT, WAVY

Apply the rule to each option above.

1. PLUG, BEAT, KIND, CANE
2. SMOG, CHIP, NAIL, LACE
3. ARMY, SHOP, SAND, TIME
4. CRAB, SPIN, GNAT, WAVY
5. All of the above give meaningful words

Correct Option - 4

A word and number arrangement machine, when given an input line of numbers and words, rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Rule: Step I - List all words in alphabetical order and all numbers in ascending order of digit-sum (ties broken by smaller number first); interleave as word, number, word, number... Step II - Each number is increased by 10 x its position among the numbers (1st +10, 2nd +20, etc.); words are rearranged into reverse-alphabetical order. Step III - Numbers are rearranged among themselves in descending order; words are rearranged by word-length in ascending order (ties broken alphabetically). Step IV - Each number has its own digit-sum subtracted from it, then the resulting numbers are arranged in ascending order; words undergo a pairwise swap: 1st & 2nd swap, 3rd & 4th swap, etc. Step V (final) - All numbers (ascending order) are grouped and placed first, followed by all words (alphabetical order).

Input: MARBLE TULIP 6741 GARDEN 3258 ONYX 9014 4423 FALCON 7890

Step I: FALCON 4423 GARDEN 9014 MARBLE 3258 ONYX 6741 TULIP 7890

Step II: TULIP 4433 ONYX 9034 MARBLE 3288 GARDEN 6781 FALCON 7940

Step III: ONYX 9034 TULIP 7940 FALCON 6781 GARDEN 4433 MARBLE 3288

Step IV: TULIP 3267 ONYX 4419 GARDEN 6759 FALCON 7920 MARBLE 9018

Step V: 3267 4419 6759 7920 9018 FALCON GARDEN MARBLE ONYX TULIP

As per the rule illustrated above, a new input is given below. Rearrange it following the same logic.

Input: VELVET 2137 CANYON JASPER 8546 5902 QUIRKY 6273

Step I: CANYON 2137 JASPER 5902 QUIRKY 6273 VELVET 8546

Step II: VELVET 2147 QUIRKY 5922 JASPER 6303 CANYON 8586

Step III: CANYON 8586 JASPER 6303 QUIRKY 5922 VELVET 2147

Step IV: JASPER 2133 CANYON 5904 VELVET 6291 QUIRKY 8559

Step V: 2133 5904 6291 8559 CANYON JASPER QUIRKY VELVET

Ques. 11. In Step III of the new arrangement, which of the following statement(s) is/are correct?

- I. Only one number in Step III has an odd digit-sum.
 - II. VELVET is placed exactly between the numbers 5922 and 2147.
 - III. JASPER is fourth from the left end of the arrangement.
1. Only I
 2. Only II
 3. Both I and II
 4. Both II and III
 5. All I, II and III

Correct Option - 3

Ques. 12. What is the difference between the 2nd-highest number in Step III and the 2nd-lowest number in Step V?

1. 399
2. 289
3. 417
4. 356
5. 402

Correct Option - 1

Ques. 13. What is the sum of the numbers found in Step V (the final step)?

1. 21654
2. 22887
3. 23012
4. 22456
5. 21998

Correct Option - 2

Ques. 14. In Step III, which element is exactly two places to the left of the element that is third from the right end?

1. JASPER
2. 8586
3. 6303
4. QUIRKY
5. CANYON

Correct Option - 3

Study the following information carefully and answer the questions given below:

Thirteen boxes - A, B, C, D, E, F, G, H, I, J, K, L and M - are kept in two stacks placed side by side, Stack 1 (west) and Stack 2 (east). Stack 1 has seven shelves, numbered 1 to 7 from bottom to top. Stack 2 has six shelves, numbered 1 to 6 from bottom to top. Exactly one box is kept on each shelf. Each box has a distinct two-digit number printed on it.

'Adjacent shelf' means a shelf immediately above or immediately below within the same stack, or the shelf directly across (same shelf-level) in the other stack. All 'between' clues refer to shelf-level distance within a single stack, unless stated otherwise.

Box A is kept on the lowest shelf of Stack 1. Box H is kept on the lowest shelf of Stack 2, directly across from Box A. Only one box is kept between the box numbered 61 and the box numbered 78, within Stack 1. The box numbered 34 is kept immediately below the box numbered 78. The box numbered 61 is kept immediately above Box B. Box B is kept immediately above Box A. Exactly one box is kept between the box numbered 78 and Box G, within Stack 1. Box G is kept on the topmost shelf of Stack 1. Exactly six boxes are kept below the box numbered 56. Box A has the number 23 printed on it. Box F has the number 12 printed on it. Exactly two boxes are kept between Box H and the box numbered 93, within Stack 2. The box numbered 27 is kept immediately below the box numbered 15. The box numbered 15 is kept immediately below the box numbered 93. Box M is kept on the topmost shelf of Stack 2. The box numbered 38 is kept

immediately below Box M. An odd number of boxes are kept between the box numbered 89 and the box numbered 38, within Stack 2. Box D is not kept adjacent to Box H.

Ques. 15. How many boxes are kept above Box D in the same stack?

1. One
2. Two
3. Three
4. Four
5. None

Correct Option - 3

Ques. 16. Which of the following numbers is printed on the box that is kept exactly between Box A and Box D in Stack 1?

1. 45
2. 61
3. 78
4. 12
5. 56

Correct Option - 2

Ques. 17. How many boxes are kept between Box H and Box L?

1. One
2. Two
3. Three
4. Four
5. None

Correct Option - 3

Ques. 18. What is the difference between the numbers printed on Box G and Box C?

1. 5
2. 3
3. 7
4. 9
5. 11

Correct Option - 1

Read the following passage carefully and answer the questions given below.

Following a sudden outbreak of viral encephalitis across four eastern districts of the state of Purvanchal, over 40,000 candidates scheduled to appear for the State Public Service Combined Exam have been affected, with several district hospitals reporting bed occupancy above 90%. The Purvanchal Aspirants' Forum has

demanding that the State Public Service Commission postpone the exam by at least six weeks, citing large-scale absenteeism from coaching centres and the difficulty affected candidates face in travelling to exam centres located outside the affected districts. The Commission has responded that postponing the exam now would delay result declaration by nearly a year, since over 500 vacancies are awaiting onward staffing decisions tied to the exam calendar. Meanwhile, the state health department has confirmed the outbreak is confined to the four districts and is expected to be contained within three weeks through an ongoing vaccination drive.

Ques. 19. Which of the following substantiates the demand raised by the Purvanchal Aspirants' Forum in the passage?

- I. Bed occupancy above 90% in affected district hospitals reflects severe strain on healthcare infrastructure that hampers candidates' ability to prepare.
- II. Exam centres for affected candidates are located outside the outbreak-hit districts, requiring travel that many candidates may be unable to undertake safely.
- III. The state health department expects the outbreak to be contained within three weeks.

- 1. Only II and III
- 2. Only III
- 3. Only I and II
- 4. Only I and III
- 5. All of three

Correct Option - 3

Ques. 20. Which of the following can be inferred from the above statement?

- I. The Commission's reluctance to postpone the exam is primarily driven by concern over delayed result declaration and pending staffing decisions.
- II. All candidates across the state of Purvanchal have been directly affected by the outbreak.
- III. Efforts are actively underway to bring the outbreak under control through vaccination.

- 1. Only II and III
- 2. Only III
- 3. Only I and II
- 4. Only I and III
- 5. All of three

Correct Option - 4

Study the following information carefully and answer the questions given below:

Ten persons - A, B, C, D, E, F, G, H, I and J - are divided between two rectangular tables. Four of them sit at Table X and six sit at Table Y; two seats at Table Y remain vacant. Table X has four seats: two are at the middle of the longer sides (occupants face outside, away from the centre) and two are at corners (occupants face inside, towards the centre); going clockwise the seats occur in a fixed cyclic order. Table Y has eight seats arranged in two parallel rows of four facing each other - Row P (seats P1-P2-P3-P4, left to right) and Row Q (seats Q1-Q2-Q3-Q4, left to right); P1 sits opposite Q1, P2 opposite Q2, P3 opposite Q3, P4 opposite Q4. Each person likes exactly one of three novels - Horror (3 people), Thriller (3 people), Romance (4 people).

A, B, C and D sit at Table X; the remaining six persons sit at Table Y. A faces outside the centre, and the immediate right of A is B, who faces the centre. The immediate right of B is C, who faces outside the centre; D sits exactly opposite B. In Row P of Table Y, E sits at an extreme end, and the seat to his immediate right is vacant. F sits second from the right end of Row P, and G sits at the extreme right end of Row P, immediately to the right of F. Exactly one seat is vacant in each row of Table Y. H sits exactly opposite E, and I sits to the immediate right of H. J sits at the extreme right end of Row Q. A likes Horror, and E likes the same novel as A. I also likes Horror, completing the Horror group with A and E. F does not like Horror or Romance, and both B and J share F's genre preference (Thriller). C, who sits immediate right of B, likes Romance, and D likes the same genre as C. G likes Romance, and H shares G's genre preference.

Ques. 21. If C and D interchange their seats at Table X, then who now sits immediate right of the person who sits opposite A?

1. B
2. D
3. C
4. E
5. None of these

Correct Option - 3

Ques. 22. Which of the following statements is true?

1. F sits at a corner seat of Table Y
2. Three people sit between E and G in Row P
3. D likes Thriller
4. I sits second to the right of the vacant seat in Row P
5. The person who sits opposite E likes Romance

Correct Option - 5

Ques. 23. Four of the following five are alike in a certain way based on the group and thus form a group. Who does not belong?

1. C
2. D
3. G
4. H
5. F

Correct Option - 5

Ques. 24. Which among the following pair(s) of persons sits near the vacant seat(s) in Table Y?

1. E and F
2. I and J
3. Both E-F and I-J
4. H and G
5. None of these

Correct Option - 3

Read the following passage carefully and answer the questions given below.

The Government of the state of Meghpur has rolled out the Unified Commerce Levy (UCL), replacing seven overlapping local taxes on inter-district trade with a single digital tax collected at the point of sale, effective October 2026. The Finance Ministry claims the reform will cut the average compliance burden on small traders from 14 filings a year to just one, while curbing evasion by linking every transaction to a centralized digital ledger. However, the Meghpur Wholesale Traders Association has criticized the reform, pointing out that the mandatory digital ledger requires internet connectivity and smartphone literacy that nearly 30% of small traders in rural Meghpur currently lack. Large retail chains, by contrast, have welcomed the move, noting that it removes the earlier advantage smaller, cash-based traders held through under-reporting of sales across district borders.

Ques. 25. Which of the following substantiates the Finance Ministry's claim that the reform will ease compliance and curb evasion, as stated in the passage?

- I. Traders will move from filing taxes 14 times a year to filing just once.
 - II. Every transaction under UCL is linked to a centralized digital ledger.
 - III. Large retail chains have welcomed the reform.
- 1. Only II and III
 - 2. Only III
 - 3. Only I and II
 - 4. Only I and III
 - 5. All of three

Correct Option - 3

Ques. 26. Which of the following can be assumed from the above statement?

- I. The government assumes that small traders' compliance costs were significantly higher under the earlier multi-filing tax system than they will be under UCL.
 - II. The reform disproportionately benefits large retail chains at the cost of rural small traders' overall competitiveness.
 - III. Not all traders in Meghpur currently have equal access to the digital infrastructure required for compliance.
- 1. Only II and III
 - 2. Only III
 - 3. Only I and II
 - 4. Only I and III
 - 5. All of three

Correct Option - 4

Ques. 27. Which of the following negates the motive behind the decision described in the passage?

- I. A significant proportion of small rural traders lack the digital infrastructure needed to comply with the new single-filing system, undermining the claimed ease of compliance.

II. The reform is actually intended to boost the state's overall tax revenue rather than to simplify compliance.
III. Large retail chains, already digitally compliant, stand to gain a competitive edge over rural traders under the new system, contrary to the reform's stated fairness rationale.

1. Only II and III
2. Only III
3. Only I and II
4. Only I and III
5. All of three

Correct Option - 4

Study the following information carefully and answer the questions given below:

Eight persons - A, B, C, D, E, F, G, H - work in two departments, Research and Agriculture, with four persons in each. Each person has a distinct mark and a distinct number of years of experience (a whole number, none exceeding 11 years). Each person's qualification is either HR or Diploma.

A and E work in the same department; C and G also work in that department, which is Research (not Agriculture), while B, D, F and H work in Agriculture. D has only 1 year of experience - the least among all eight persons. A has 2 years of experience, one year less than E's. F has twice the years of experience of E. B has 7 years of experience. C has 9 years of experience - the highest among all eight persons. G has 8 years of experience, twice as much as H's. B's marks are exactly twice F's years of experience, and B does not hold an HR qualification. A's marks are three more than B's marks, and A's marks are not a multiple of 7. F's marks are thrice D's years of experience; F has the lowest marks among all eight persons and holds an HR qualification. E's marks are ten times E's own years of experience. C's marks are four times C's own years of experience. G's marks are eight more than C's marks, and G has the highest marks among all eight persons. D's marks exceed H's years of experience by 20, while H's marks equal A's marks plus twice G's years of experience. A holds a Diploma qualification, the same as D; among the rest, C, E and H hold HR qualification whereas G holds Diploma.

Ques. 28. Four of the following five are alike in a certain way based on qualification and thus form a group. Who among the following doesn't belong to that group?

1. A
2. B
3. D
4. G
5. C

Correct Option - 5

Ques. 29. What is the sum of the years of experience of B, D, F and H?

1. 16
2. 17
3. 18
4. 20
5. 22

Correct Option - 3

Ques. 30. Which among the following statements is not true?

1. G has the highest marks among all eight persons
2. F has the lowest years of experience among all eight persons
3. C and G work in the Research department
4. B does not hold an HR qualification
5. H's marks are 31

Correct Option - 2

Study the given information and answer the questions based on it:

There are four platforms in a railway station. The platforms open at different times one after the other such that platform 1 opens at 5am, platform 2 opens at 6am, platform 3 opens at 7am and platform 4 opens at 8am. Some trains arrive at these platforms one by one at a gap of 1 hour, i.e., if a train arrived at platform 1 at 5am, then the next train will arrive at platform 1 at 6am. Multiple trains can arrive at a single platform but with a 1-hour gap in their arrival, and no train arrives after 8am anywhere in the station. Eight trains - D, G, H, K, M, S, T, W - arrive across the four platforms.

Train D is the first train to arrive at the station. Train D arrives just before train G, and train G arrives just before train H, all on the same platform. Train M is not the single train to arrive on its platform. Train K arrives on the same platform as train M, exactly one hour before train M arrives. Train S arrives at platform 3 as soon as it opens. Train T arrives immediately after train S, on the same platform. Train M and train S arrive at the same hour, but on different platforms. Train W is the only train to arrive on its platform, and no train arrives after train W anywhere in the station.

Ques. 31. How many trains arrive on all the platforms (consider a train only once)?

1. 6
2. 7
3. 8
4. 9
5. 10

Correct Option - 3

Ques. 32. Which of the following trains arrives just before train M on the same platform?

1. D
2. G
3. K
4. S
5. T

Correct Option - 3

Ques. 33. Which of the following trains arrives at last on platform 3?

1. S
2. T
3. W

4. M
5. H

Correct Option - 2

Ques. 34. Which of the following statements is NOT true?

1. Train D is the first train to arrive at the station.
2. Exactly three trains arrive at platform 1.
3. Train K arrives immediately before train M on platform 2.
4. Train W shares its platform with train T.
5. Train S arrives at platform 3 as soon as it opens.

Correct Option - 4

Below are given two Statements I and II. These statements may be either independent causes or may be effects of independent causes or one of these statements may be the effect of the other statement. Read both statements and decide which of the following answer choices correctly depicts the relationship between these two statements.

Ques. 35. Statement I: In the town of Barampur, the local textile mill announced a 20% wage hike for all its permanent handloom workers, effective September 2026.

Statement II: During the same period, the town's only vocational training institute for handloom weaving recorded a 35% jump in new admissions.

1. If Statement I is the cause and Statement II is its effect
2. If Statement II is the cause and Statement I is its effect
3. If both the Statements I and II are independent causes
4. If both the Statements I and II are effects of independent causes
5. If both the Statement I and II are effects of some common cause

Correct Option - 5

Study the following information carefully and answer the questions given below:

Ten persons - A, B, D, E, F, G, H, I, J, K - sit in a single row of ten seats numbered 1 to 10 from the left end. Some face north and some face south. Each of them likes a different city - Kanazawa, Odense, Nagoya, Palma, Aarhus, Trieste, Bergen, Kochi, Salzburg, Verona.

B, who likes Bergen, sits at the fourth position from one of the extreme ends of the row and faces North. E sits four seats to the left of B, faces North, and likes Nagoya. D, who likes Aarhus, sits exactly two seats to the right of E and faces North. Only two persons sit between D and A; A sits to the right of D, faces South, and likes Kochi. Only one person sits between B and F; F faces South and likes Salzburg. G likes Kanazawa, sits at one of the extreme ends of the row, and faces South. Only four persons sit between G and J; J faces North and likes Trieste. I likes Odense, sits second from the left end of the row, and faces South. Only one person sits between I and H; H faces South and likes Palma. K sits at the extreme right end of the row and faces North. The persons sitting at the two extreme ends of the row face in opposite directions. Exactly four persons sit to the left of D. Exactly one person sits to the right of F.

Ques. 36. Which among the following statement(s) is/are true?

- I. Only two persons sit between H and B.
- II. F sits immediate right of A.
- III. The one who likes Palma sits immediate right of D.

- 1. Only I
- 2. Only III
- 3. Both I and II
- 4. Both II and III
- 5. All I, II and III

Correct Option - 3

Ques. 37. How many persons sit between D and the one who likes Salzburg?

- 1. 1
- 2. 2
- 3. 3
- 4. 4
- 5. 5

Correct Option - 3

Ques. 38. What is the position of the one who likes Trieste with respect to B?

- 1. Immediately to the left
- 2. Immediately to the right
- 3. Second to the left
- 4. Third to the right
- 5. Fourth to the left

Correct Option - 1

Ques. 39. The number of persons sitting to the right of B is two less than the number of persons sitting to the right of ____.

- 1. A
- 2. E
- 3. D
- 4. F
- 5. G

Correct Option - 3

Twelve persons sit in two parallel rows such that six persons sit in each row. In row 1, A, B, C, D, E and F sit and face south, while in row 2, P, Q, R, S, T and U sit and face north (but not necessarily in the same order). The persons in row 1 face the persons in row 2 and vice versa.

I. D sits third to the right of C. F sits second to the left of B.

II. A sits to the immediate right of C. E sits to the immediate right of B.

III. P sits second to the right of R. S sits to the immediate right of P. Q sits to the immediate right of S. U sits to the immediate right of Q.

The question below consists of a question and three statements numbered I, II and III given below it. You have to decide whether the data given in the statements are sufficient to answer the question or not.

Ques. 40. Who among the following faces D?

1. If data in statement I alone is sufficient
2. If data in statement II alone is sufficient
3. If data either in statement I alone or in statement III alone is sufficient
4. If data in all statements i.e., I, II and III even together is not sufficient
5. If data in all statements i.e., I, II and III together is sufficient

Correct Option - 5

Eight persons - G, H, I, J, K, L, M and N - attend a function in eight different months, viz. January, March, April, May, July, August, November and December of the same year (not necessarily in the same order).

I. H attends the function first among all the eight persons. Only two persons attend the function between H and N. I attends the function immediately after N. L attends the function immediately after I. G attends the function immediately before N.

II. G attends the function immediately after K. Only three persons attend the function between K and L.

III. H attends the function first among all the eight persons, and M attends last. K attends the function immediately after H. G attends the function immediately after K. Only one person attends the function between G and I. I attends the function immediately after N. J attends the function immediately after L.

The question below consists of a question and three statements numbered I, II and III given below it. You have to decide whether the data given in the statements are sufficient to answer the question or not.

Ques. 41. Who will attend the function in the month of May?

1. If data in statement I alone is sufficient
2. If data in statement II alone is sufficient
3. If data either in statement I alone or in statement III alone is sufficient
4. If data in all statements i.e., I, II and III even together is not sufficient
5. If data in all statements i.e., I, II and III together is sufficient

Correct Option - 3

Study the following information carefully and answer the questions given below:

Eight persons - D, M, P, B, R, S, T and N - are members of a family and were born (not necessarily in that order) in eight different years: 1952, 1956, 1981, 1984, 1988, 1990, 2014 and 2017. All ages are calculated as on the year 2024.

D and M are a married couple; they have exactly two children, P and B. P is the brother of B, and R is the wife of P. S is the husband of B. T and N are the children of P and R, and T is the brother of N. Among all eight persons, D and M are the two eldest, and D is older than M. T and N are the two youngest persons in the family. D's age is exactly twice R's age. M's age is exactly twice S's age. B is elder to P, and B's age is a prime number. B's age is exactly 3 years more than P's age. P's age is exactly four times T's age. N's age is a prime number less than 10. D's age is a multiple of 12, while B's age is not.

Ques. 42. What is the age of T's uncle?

1. 34 years
2. 36 years
3. 40 years
4. 43 years
5. 68 years

Correct Option - 1

Ques. 43. Who is R's mother-in-law?

1. D
2. M
3. B
4. S
5. Cannot be determined

Correct Option - 2

Ques. 44. What is the average age of M, P, S and T?

1. 36 years
2. 38 years
3. 40 years
4. 42 years
5. 44 years

Correct Option - 2

Study the following information carefully and answer the question given below:

Nine persons - A, B, C, D, E, F, G, H and I - sit around a circular table (not necessarily in that order) such that some face the centre while others face away from the centre. Not more than two persons sitting together face the same direction. No two persons whose names are consecutive letters of the alphabet (e.g., A-B, B-C, C-D, etc.) sit adjacent to each other. 'Left' and 'right' are with respect to each person's own facing direction.

A faces the centre, and G sits third to the right of A. I sits fourth to the right of A. E faces away from the centre and sits second to the right of A. B faces away from the centre and sits second to the right of G. D sits third to the right of G. F faces the centre and sits to the immediate right of D. H faces away from the centre and sits second to the right of D. C faces the centre and sits to the immediate right of A. I faces the centre.

Ques. 45. How many persons sit between C and D when counted from the right of C (i.e., moving in C's own rightward direction from C to D)?

1. 2
2. 3
3. 4
4. 5

5. 6

Correct Option - 3

In each of the questions given below three words are given in bold. These words may or may not be in their correct position. Following each sentence a few sequences are provided. Select the sequence of the words which will make the given sentence contextually meaningful.

Ques. 46. Neuroscientists have discovered that chronic sleep deprivation can (A) significantly (B) impair the brain's ability to (C) consolidate long-term memories.

1. No interchange required
2. A and B should be interchanged
3. B and C should be interchanged
4. A and C should be interchanged
5. All three (A), (B) and (C) should be interchanged

Correct Option - 1

Ques. 47. The auditor (A) finds (B) rarely discrepancies (C) serious enough to warrant a formal investigation.

1. No interchange required
2. A and B should be interchanged
3. B and C should be interchanged
4. A and C should be interchanged
5. All three (A), (B) and (C) should be interchanged

Correct Option - 2

Ques. 48. Autonomous vehicles must (A) detect obstacles (B) instantly and respond (C) accurately to avoid collisions in dense traffic.

1. No interchange required
2. A and B should be interchanged
3. B and C should be interchanged
4. A and C should be interchanged
5. All three (A), (B) and (C) should be interchanged

Correct Option - 3

Ques. 49. The curator (A) intuitively arranged the exhibits (B) chronologically so that visitors could trace the artist's stylistic evolution (C) carefully.

1. No interchange required
2. A and B should be interchanged
3. B and C should be interchanged
4. A and C should be interchanged
5. All three (A), (B) and (C) should be interchanged

Correct Option - 4

Ques. 50. Effective teachers first (A) design targeted interventions, then (B) evaluate measurable progress, and finally (C) assess each student's baseline knowledge.

1. No interchange required
2. A and B should be interchanged
3. B and C should be interchanged
4. A and C should be interchanged
5. All three (A), (B) and (C) should be interchanged

Correct Option - 5

Two paragraphs with a blank space are provided in each of the following questions. Fill in the blank space with the most appropriate one out of the four options given below, taking into consideration the consistency and compatibility of the paragraphs. If none of the given options seems appropriate to fill in the blank space, choose option (e) as your answer choice.

Ques. 51. (I) Good afternoon, thank you for taking the time to explain your resume. I noticed a two-year gap in your work history between 2021 and 2023. Could you walk me through what you were doing during that period?

(II) _____

(III) That's a compelling explanation. Your certification and freelance projects clearly show initiative rather than idleness. Let's move on to discuss the specific role you're applying for.

1. During that time, I mostly focused on personal matters and took a break from my career to relax and travel extensively across Europe.
2. I used that period to complete a professional certification in data analytics and took on freelance consulting projects to stay engaged with the industry while caring for a family member.
3. Honestly, I was unable to find suitable employment despite applying to numerous companies, so the gap was largely involuntary and stressful.
4. I decided to leave the workforce permanently at that time, though I have recently reconsidered returning to full-time employment.
5. None of the above

Correct Option - 2

Ques. 52. (I) _____

(II) This expansion has been driven primarily by robust manufacturing output and a resurgence in private consumption, both of which have outpaced most analysts' projections for the fiscal year.

(III) However, economists caution that the growth remains uneven, with rural demand lagging behind urban consumption and export growth still constrained by global headwinds.

1. The nation's economy contracted sharply in the last quarter, raising fears of an impending recession among policymakers and market analysts alike.
2. The country's Gross Domestic Product grew by 7.8 percent in the second quarter, marking its fastest pace of expansion in nearly three years.
3. Inflation rates soared to a decade-high level last month, prompting the central bank to consider an emergency interest rate hike.

4. The stock market experienced significant volatility this week due to geopolitical tensions in the region, wiping out billions in investor wealth.
5. None of the above

Correct Option - 2

Ques. 53. (I) Traditional pedagogy has long emphasized rote memorization, rewarding students who can reproduce facts accurately under examination conditions.

(II) Progressive educators argue that this approach fails to cultivate critical thinking, since students trained merely to recall information often struggle when confronted with unfamiliar, real-world problems.

(III) _____

1. Consequently, many institutions are now redesigning curricula to prioritize inquiry-based learning, where students are encouraged to question, experiment, and construct their own understanding of concepts.
2. As a result, standardized testing has been abolished entirely across most education systems worldwide, replaced by informal peer assessments.
3. Nevertheless, rote memorization remains the only reliable method of ensuring academic success, and reformers have largely abandoned their critique.
4. Meanwhile, enrollment in vocational training programs has declined steadily as more students pursue traditional academic degrees.
5. None of the above

Correct Option - 1

Ques. 54. (I) Groundwater levels in the semi-arid region have fallen by nearly forty percent over the past two decades, largely due to unchecked extraction for irrigation-intensive crops like sugarcane and paddy.

(II) _____

(III) Unless farmers transition to less water-intensive alternatives such as millets and pulses, coupled with drip irrigation technology, the region risks irreversible agrarian collapse within a generation.

1. As a result, hundreds of villages now report wells running dry each summer, forcing farmers into debt as they drill deeper borewells that often yield only saline, unusable water.
2. Fortunately, recent monsoon rains have fully replenished the region's aquifers, eliminating any immediate concerns about water availability for the foreseeable future.
3. Meanwhile, the region has seen a boom in water-intensive industries such as textile dyeing, which local authorities have actively encouraged to boost employment.
4. In contrast, urban water consumption in nearby cities has decreased significantly due to successful rainwater harvesting initiatives implemented last year.
5. None of the above

Correct Option - 1

Ques. 55. (I) _____

(II) Each morning, she spends twenty minutes tending to her small balcony garden, pruning wilted leaves and checking the soil moisture before starting her workday.

(III) By the time the tomatoes ripen and the marigolds bloom in full, the modest patch of greenery has become less a chore and more a quiet source of daily contentment.

1. After moving into a cramped city apartment, Meera initially dismissed the idea of gardening, assuming that limited space and her hectic schedule left no room for such a hobby.
2. Meera has always disliked plants and considers gardening a waste of valuable time that could be spent on more productive pursuits.
3. Professional landscape architects recommend hiring experts rather than attempting to grow vegetables independently in urban settings.
4. The rising cost of vegetables in local markets has forced many urban households to abandon home gardening altogether due to poor returns.
5. None of the above

Correct Option - 1

Read each sentence to find out whether there is any grammatical or idiomatic error in it. In the following sentences, a part is highlighted in each sentence which is error-free; the error, if any, will be in any other part of the sentence. The letter of that part is the answer. If there is 'No error', the answer is (e). (Ignore errors of punctuation, if any.)

Ques. 56. The committee have decided (A)/ to allocate additional funds towards research (B)/ that examines the long-term effects of soil erosion (C, error-free)/ on agricultural productivity in arid regions. (D)

1. A
2. B
3. C
4. D
5. No error

Correct Option - 1

Ques. 57. Despite facing severe supply chain disruptions (A)/ the company managed to increase its quarterly revenue (B)/ by adopting a more agile procurement strategy (C)/ and diversifying its supplier base across regions. (D, error-free)

1. A
2. B
3. C
4. D
5. No error

Correct Option - 2

Ques. 58. Researchers analyzing data from the space telescope (A, error-free)/ concluded that the exoplanet's atmosphere contain traces of water vapor (B)/ a finding that could reshape our understanding of habitability (C)/ beyond the solar system. (D)

1. A
2. B
3. C

- 4. D
- 5. No error

Correct Option - 2

Ques. 59. The university's new policy requires (A)/ all first-year students to complete an orientation program (B, error-free)/ before they are permitted to register for advanced courses (C)/ in the following semester. (D)

- 1. A
- 2. B
- 3. C
- 4. D
- 5. No error

Correct Option - 5

Ques. 60. The auditors pointed out that neither the CEO nor the CFO were aware (A)/ of the discrepancies in the annual report (B)/ until the external review flagged them (C, error-free)/ during the routine compliance check. (D)

- 1. A
- 2. B
- 3. C
- 4. D
- 5. No error

Correct Option - 1

Ques. 61. Many educators believe that critical thinking skills are best developed (A, error-free)/ not through rote memorization but by engaging students in open-ended discussions (B)/ that encourages them to question assumptions (C)/ and construct reasoned arguments of their own. (D)

- 1. A
- 2. B
- 3. C
- 4. D
- 5. No error

Correct Option - 3

In each of the following questions there are three blank spaces. Below each question there are some options and each option consists of three words which can be filled up in the blanks of the statement(s) to make the statement grammatically correct. Choose the correct alternative among the options given below.

Ques. 62. The internal audit uncovered a pattern of ____ that had gone unnoticed for years, prompting the board to demand a ____ investigation and eventually leading to the ____ resignation of two senior executives.

- 1. benevolence, exhaustive, abrupt
- 2. malfeasance, exhaustive, abrupt

3. malfeasance, cursory, abrupt
4. malfeasance, exhaustive, gradual
5. negligence, superficial, hasty

Correct Option - 2

Ques. 63. Her ____ approach to conflict resolution, always weighing practical outcomes over rigid principles, earned her a reputation as the team's most ____ negotiator, even though colleagues sometimes found her ____ silence unsettling during heated discussions.

1. dogmatic, adept, taciturn
2. pragmatic, inept, taciturn
3. pragmatic, adept, garrulous
4. pragmatic, adept, taciturn
5. idealistic, adept, taciturn

Correct Option - 4

Ques. 64. Overcoming a childhood stutter through sheer ____ practice, the young orator went on to deliver a speech so ____ that it moved the entire auditorium to a standing ovation, silencing critics who had once dismissed his ambitions as ____.

1. dogged, eloquent, quixotic
2. desultory, eloquent, quixotic
3. dogged, halting, quixotic
4. dogged, eloquent, pragmatic
5. dogged, eloquent, laudable

Correct Option - 1

Ques. 65. Given the ____ budget for the fiscal year, the finance committee had to make ____ cuts across several departments, a decision that proved deeply ____ among employees who felt blindsided by the lack of consultation.

1. profligate, judicious, contentious
2. constrained, arbitrary, contentious
3. constrained, judicious, laudable
4. lavish, judicious, contentious
5. constrained, judicious, contentious

Correct Option - 5

Ques. 66. The NGO's ____ fundraising campaign, which relied on grassroots volunteers rather than corporate sponsors, managed to raise enough money to fund a ____ housing project for displaced families, earning it widespread ____ from local media.

1. lackluster, ambitious, acclaim
2. tireless, negligible, acclaim
3. tireless, ambitious, acclaim

4. tireless, ambitious, censure
5. apathetic, ambitious, acclaim

Correct Option - 3

Ques. 67. The keynote speaker's ____ remarks on climate policy, delivered without a single note card, left the usually ____ audience unusually silent, and even seasoned journalists later admitted the speech had left them ____ for words.

1. scripted, restive, groping
2. extemporaneous, restive, groping
3. extemporaneous, placid, groping
4. extemporaneous, restive, eloquent
5. extemporaneous, restive, forthcoming

Correct Option - 2

Read the following passage and answer the given questions.

The proliferation of algorithmic high-frequency trading across global bourses has engendered a pervasive quandary that regulators seem perennially ill-equipped to resolve: the specter of "flash crashes" precipitated not by malfeasant human agency but by the unforeseen, cascading interplay of autonomous trading algorithms operating at velocities that transcend human cognition. These algorithms, meticulously calibrated to exploit millisecond arbitrage opportunities, are eclectic in their design philosophies, ranging from momentum-chasing stratagems to statistical mean-reversion protocols, yet they share a congenital vulnerability: an inability to discern between genuine market signals and the ephemeral noise generated by their own kin. When one algorithm's precipitous sell-off triggers a chain reaction among its peers, the resultant liquidity vacuum can obliterate billions in notional value within minutes, only for prices to rebound with equal alacrity once the algorithmic frenzy subsides.

An astounding 68% of surveyed institutional trading desks conceded, in a recent industry poll, that they possessed no fully reliable mechanism to forecast or forestall such self-reinforcing cascades before they metastasize into full-blown market dislocations. Exchanges have responded with an eclectic array of stratagems, including circuit breakers, order-to-trade ratio limits, and mandatory cooling-off periods, yet these palliatives address symptoms rather than the underlying _____ of algorithmic interdependence that renders modern markets so fragile.

Compounding this exigency is the reluctance of proprietary trading firms to divulge their code architecture, citing competitive sanctity, which leaves regulators promulgating rules in a state of relative epistemic darkness. Some economists argue that the vicissitudes of algorithmic trading are simply the modern incarnation of speculative excess, while others contend that the sheer speed and opacity of these systems represent a qualitatively unprecedented threat, one demanding a wholly reimagined regulatory architecture rather than incremental tinkering with legacy safeguards designed for a bygone, human-paced era of trading.

Ques. 68. What aspect contributes to the flash crashes described in the passage?

1. Deliberate market manipulation by rogue human traders
2. The cascading, self-reinforcing interplay among autonomous trading algorithms
3. Insufficient computing power at major exchanges
4. Excessive regulatory intervention in trading markets
5. A shortage of institutional investors participating in markets

Correct Option - 2

Ques. 69. Which of the following can be considered consequences of algorithmic trading cascades as per the passage?

- (I) Billions in notional value can be wiped out within minutes.
 - (II) Prices may rebound quickly once the algorithmic frenzy subsides.
 - (III) Proprietary trading firms voluntarily disclose their code architecture to regulators.
1. Only (I)
 2. Only (II)
 3. Both (I) and (II)
 4. Both (I) and (III)
 5. All (I), (II) and (III)

Correct Option - 3

Ques. 70. Which of the following CANNOT be considered as one of the exchanges' stratagems to address algorithmic trading risks, as per the passage?

1. Circuit breakers
2. Order-to-trade ratio limits
3. Mandatory cooling-off periods
4. Mandatory disclosure of proprietary algorithmic code
5. Trading halts triggered during extreme volatility

Correct Option - 4

Ques. 71. How do regulators navigate the challenge of overseeing algorithmic trading, as per the passage?

1. By banning high-frequency trading outright across all exchanges
2. By formulating rules despite limited insight into proprietary trading firms' code architecture
3. By relying entirely on trading firms to self-regulate without any exchange-level mechanisms
4. By partnering with academic economists to rewrite all trading algorithms
5. By ignoring the issue since flash crashes are considered inconsequential

Correct Option - 2

Ques. 72. Choose the most suitable word to fill in the blank.

1. fragility
2. prosperity
3. transparency
4. benevolence
5. stagnation

Correct Option - 1

Ques. 73. What is the tone of the passage?

1. Sarcastic
2. Analytical
3. Frivolous
4. Celebratory
5. Apathetic

Correct Option - 2

Ques. 74. According to the passage, choose the most suitable word that has a similar meaning to 'metastasize'.

1. Diminish
2. Spread uncontrollably
3. Stabilize
4. Conceal
5. Originate

Correct Option - 2

Read the following passage and answer the given questions.

Every time a smartphone unlocks with a glance or a payment app confirms a purchase with a scan, a facial recognition system is at work behind the scenes. Yet the term "facial recognition" is frequently used interchangeably with "facial detection," even though the two processes are distinct in scope and purpose. Facial detection is concerned merely with locating a face within an image or video frame - determining that a face exists and marking its boundaries - without any attempt to establish whose face it is. Facial recognition, by contrast, proceeds a step further: once a face has been detected, the system extracts and analyses its unique structural features to match it against a stored identity, either confirming a specific person's identity or identifying an unknown individual from a database.

The recognition process itself unfolds in three broad stages. First, the detection stage isolates the face from its surroundings, discarding background clutter. Second, in the feature extraction stage, the system maps distinguishing landmarks - the distance between the eyes, the contour of the jawline, the width of the nose bridge - and converts these measurements into a numerical representation called a faceprint. This faceprint functions much like a fingerprint, serving as a compact digital summary of an individual's facial geometry that can be compared quickly without reprocessing the original image. Third, the matching stage compares the newly generated faceprint against a reference database, calculating a similarity score to determine whether the two faceprints likely belong to the same person.

Devices such as smartphone systems like FaceUnlockPro and security platforms like SentryGate rely heavily on infrared sensors to project thousands of invisible dots onto a user's face, creating a precise three-dimensional depth map rather than a flat two-dimensional photograph. This dimensional mapping makes the system considerably more resistant to being fooled by a printed photograph or a flat screen image, since an imposter attempting to _____ the system with a static picture cannot replicate genuine depth variation. Consequently, accuracy improves substantially in varied lighting conditions and viewing angles, which explains why such systems have become the preferred authentication method for banking applications and airport immigration checkpoints alike, where reliability under inconsistent conditions is paramount.

Ques. 75. What is the specific focus of facial recognition in comparison to facial detection?

1. Facial recognition only marks the boundaries of a face within an image
2. Facial recognition establishes and matches the identity of a detected face, whereas facial detection only locates a face
3. Facial recognition discards background clutter while facial detection maps facial landmarks
4. Facial recognition and facial detection both perform identity matching but at different speeds
5. Facial recognition is used only in security platforms while facial detection is used only in smartphones

Correct Option - 2

Ques. 76. What is the function of the faceprint as described in the passage?

1. It projects infrared dots onto the user's face
2. It serves as a compact numerical representation of facial geometry that allows quick comparison without reprocessing the original image
3. It marks the boundaries of a detected face
4. It calculates the similarity score between two databases
5. It converts a two-dimensional photograph into a printed image

Correct Option - 2

Ques. 77. How does three-dimensional depth mapping contribute to the overall improvement of facial recognition systems?

1. It eliminates the need for a reference database
2. It replaces the feature extraction stage entirely
3. It makes systems more resistant to spoofing with flat images and improves accuracy across varied lighting and angles
4. It slows down the matching stage to increase precision
5. It allows systems to function without detecting a face first

Correct Option - 3

Ques. 78. Why does the passage suggest that resistance to spoofing is crucial for facial recognition systems used in banking and immigration?

1. Because such settings require rapid processing above all else
2. Because these systems must remain reliable and secure under inconsistent conditions where imposters might attempt to deceive them
3. Because banking applications do not use infrared sensors
4. Because immigration checkpoints only use facial detection, not recognition
5. Both because such settings require reliability under inconsistent conditions and because they must resist deception by static images

Correct Option - 5

Ques. 79. Choose the most suitable word that should fill the given blank.

1. enhance
2. deceive
3. repair
4. document
5. strengthen

Correct Option - 2

Ques. 80. Choose the most appropriate choice that can substitute the three highlighted words 'isolates', 'compact' and 'paramount' in the passage, in the same order.

1. separates, condensed, essential
2. isolates, spacious, minor
3. connects, compact, trivial
4. separates, bulky, essential
5. isolates, condensed, secondary

Correct Option - 1

Study the following table carefully and answer the given questions.

Five shops A, B, C, D and E sell products on Monday, Tuesday and Wednesday. Some cells are deliberately left blank ('—') and must be derived using the given algebraic expressions (x, y) together with the Notes below.

Note:

1. Total number of products sold by shop A on all three days is 2080.
2. Total number of products sold by shop E on all three days is 2400.
3. Total number of products sold by shops B, C and D on all three days are 1250, 2500 and 2000 respectively.
4. Some data are missing; calculate the same wherever required.

Shop	Ratio of products sold Mon:Tue	Total products sold on Tuesday	% sold on Wed out of 3-day total
A	8 : 5	10x	y%
B	3 : 2	—	(y+10)%
C	7 : 4	(25/2)x	—
D	—	15x	(y-15)%
E	9 : 5	15x	(y-20)%

Ques. 81. In shop B, the ratio of total products sold on Monday to Tuesday is 3:2 and shop B sold a total of 1250 products across all three days. If shop B sold 60% of its total products on Wednesday, then find the total number of products sold by shop B on Tuesday.

1. 180
2. 190

3. 200
4. 210
5. 220

Correct Option - 3

Ques. 82. In shop C, the ratio of total products sold on Monday to Tuesday is 7:4 and shop C sold 500 products on Tuesday. If shop C sold a total of 2500 products across the three days, find the percentage of products sold by shop C on Wednesday out of its total 3-day sales.

1. 40%
2. 42.5%
3. 45%
4. 47.5%
5. 50%

Correct Option - 3

Ques. 83. In shop D, shop D sold 600 products on Tuesday and its total sales across the three days is 2000. If shop D sold 35% of its total products on Wednesday, find the ratio of products sold by shop D on Monday to that sold on Tuesday.

1. 6:5
2. 7:6
3. 8:7
4. 5:4
5. 9:7

Correct Option - 2

Ques. 84. In shop A, the ratio of total products sold on Monday to Tuesday is 8:5, total products sold by shop A on all three days is 2080, and shop A sold 50% of its total products on Wednesday (Tuesday sales of A = $10x$). Using the value of x obtained, and given shop E's ratio of Monday to Tuesday sales is 9:5 with Tuesday sales of E = $15x$, find the total number of products sold by shop E on Monday.

1. 960
2. 1020
3. 1080
4. 1140
5. 1200

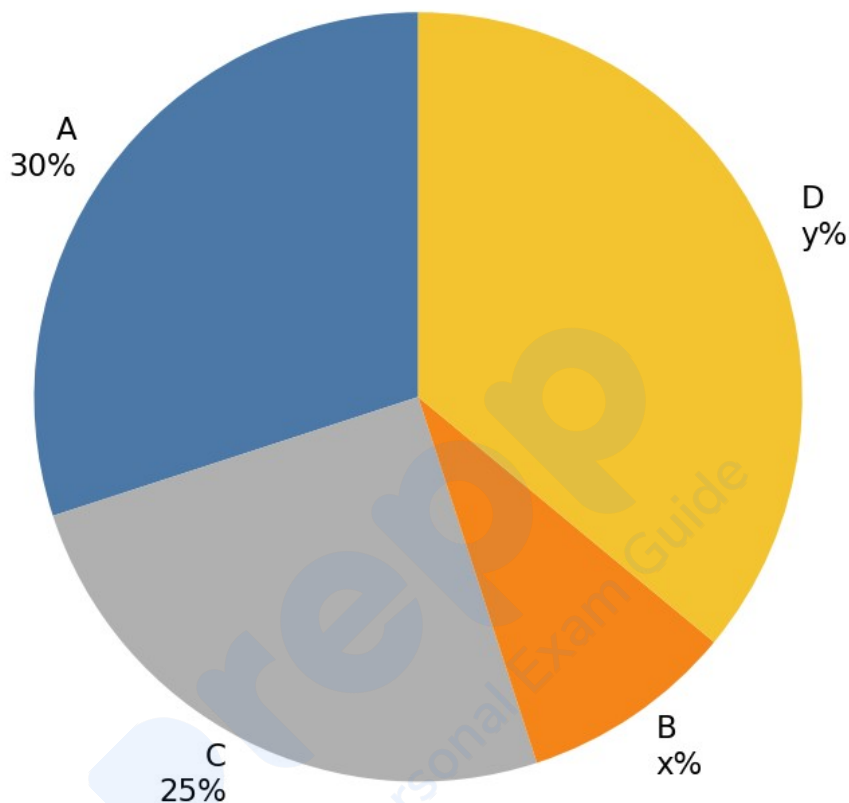
Correct Option - 3

Study the following pie chart carefully and answer the given questions.

The pie chart shows the percentage distribution of questions attempted by 4 students - A, B, C and D - in a mock exam. The exam contains 3 subjects: English, History and Mathematics consisting of 50, 45 and 60 questions respectively (total 155 questions). The maximum number of questions that can be attempted by any single student is 120. The total number of questions attempted by all four students combined is 300.

Pie chart percentages: $A = 30\%$, $C = 25\%$, $B = x\%$, $D = y\%$, where $x + y = 45$.

**Percentage Distribution of Questions Attempted
by all the Students**



Ques. 85. From which of the given statement(s) can we find the exact value of $(x - y)$?

Statement I: The difference between the number of questions attempted by B and C is 15.

Statement II: The number of questions attempted by D is 20% more than that attempted by A.

1. Only (I)
2. Only (II)
3. Neither (I) nor (II)
4. Either (I) and (II)
5. Both (I) and (II) together

Correct Option - 2

Ques. 86. If student C attempted 20 questions in English, and the number of questions attempted by C in History is more than that (20) but less than the number attempted in Mathematics, find the possible number of questions attempted in Mathematics by C.

1. Between 21 and 27
2. Between 25 and 30
3. Between 28 and 34
4. Between 30 and 40
5. Between 34 and 40

Correct Option - 3

Ques. 87. For each incorrect question 1 mark is deducted and for each correct answer 2 marks are given. If student D attempted 50% of the total questions attempted by him in Mathematics, and gained 87 marks from Mathematics, find the number of incorrect questions attempted by D in Mathematics.

1. 5
2. 6
3. 7
4. 8
5. 9

Correct Option - 3

Study the following table carefully and answer the given questions.

The table shows the distance (in km) from the point named in the row to the point named in the column, among four points P, Q, R and S. '' means there is no direct route between the given origin and destination. Note: If a person wants to travel from one point to another, they can only use the vehicle available at the point of ORIGIN of that particular leg of the journey.**

From \ To	P	Q	R	S	Vehicle at origin	Speed (km/hr)
P	—	240	300	**	Taxi	80
Q	180	—	150	200	Bus	50
R	240	**	—	180	Car	60
S	210	250	**	—	Bike	25

Ques. 88. Person A travels from P to S, and Person B travels from Q to P. Find the difference between the maximum distance that could be travelled by A (over all possible routes) and the distance travelled by B.

1. 280 km
2. 300 km
3. 320 km
4. 260 km
5. 340 km

Correct Option - 2

Ques. 89. A person wants to travel from point P to point R. Find the minimum time required to cover this distance.

1. 3 hours
2. 3.5 hours
3. 3.75 hours
4. 4 hours
5. 4.25 hours

Correct Option - 3

Ques. 90. A person travels from P to S via Q. The fare of the vehicle per km from Q to S is 20% more than the fare per km of the vehicle from P to Q. If the total fare collected for the entire journey from P to S (via Q) is Rs. 7200, find the fare of the Taxi per km (i.e., the P-to-Q rate).

1. Rs. 12
2. Rs. 13
3. Rs. 14
4. Rs. 15
5. Rs. 16

Correct Option - 4

Ques. 91. Find the minimum possible sum of the time (in hours) taken to cover the distance from P to S and from R to S.

1. 9 hours
2. 9.25 hours
3. 9.5 hours
4. 9.75 hours
5. 10 hours

Correct Option - 4

Read the information carefully and answer the given questions.

A, B, C and D together can do a work 'X' in 8 days, and D did $\frac{1}{7}$ th of work X. The ratio of efficiency of A to that of B is 9:5, while B is 25% more efficient than C. A and B together can complete work X in 'x' days, while A and D together can complete the same work X in 'y' days.

Ques. 92. Two persons P and Q together can complete another work 'Y' in $(x+12)$ days, while Q and R together can complete the same work Y in $(y-2)$ days. If P, Q and R together can complete work Y in $(x-2)$ days, find efficiency of Q is what percent more/less than efficiency of P.

1. 50% more
2. 100% more
3. 25% more
4. 50% less

5. 40% more

Correct Option - 1

Ques. 93. 'm' men can complete a work in $(x+9)$ days, while 'y' men can complete the same work in 'n' days. If $(y-7)$ men can complete the same work in $(n+12)$ days, then find in how many days $(n-m)$ men can complete the same work.

1. 40 days
2. 36 days
3. 42 days
4. 48 days
5. 45 days

Correct Option - 3

Ques. 94. 'm' men can do a work in 'n' days, and 'n' women can do the same work in $2m$ days. 'x' men and $1.5y$ women together can complete the same work in 20 days. 5 men and $(y+1)$ women started working together and worked for only 'D' days, and the remaining work was completed by a woman alone in $(25/3)D$ days. Find the value of D.

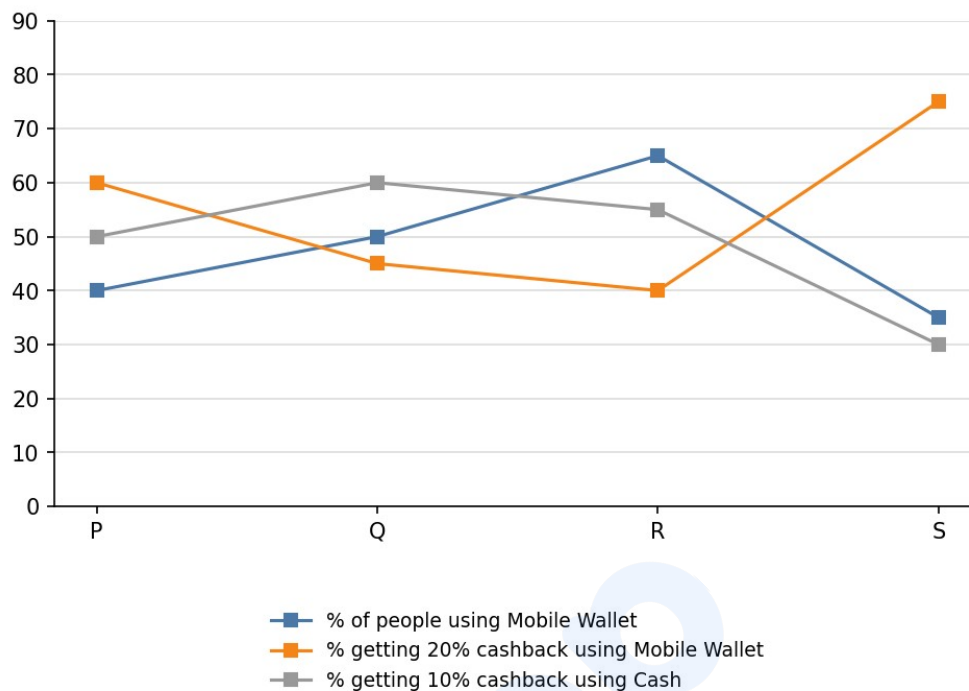
1. 24
2. 21
3. 27
4. 30
5. 33

Correct Option - 3

Study the following line graph carefully and answer the given questions.

The line graph shows, for four restaurants P, Q, R and S on a given day: (i) % of people using Mobile Wallet to pay the bill, (ii) % of people getting 20% cashback using Mobile Wallet out of total Mobile-Wallet users, (iii) % of people getting 10% cashback using Cash out of total Cash users.

Note: (i) Mobile Wallet users get 20% cashback; Cash users get 10% cashback. (ii) Total people who paid using Mobile Wallet = number getting 20% cashback + number who did not get any discount using Mobile Wallet. (iii) Total people who paid using Cash = number getting 10% cashback + number who did not get any discount using Cash. (iv) Every visitor paid using either Mobile Wallet or Cash only.



Ques. 95. In restaurant P, 80 customers are using Mobile Wallet but not getting cashback. Find the number of people getting cashback in restaurant P.

1. 120
2. 90
3. 80
4. 145
5. 150

Correct Option - 1

Ques. 96. Total 1000 people went to restaurant Q. As per a new scheme, if the average cashback for only Cash users who do NOT get cashback is Rs. 50 per person, then find the total amount of cashback given to the persons who initially didn't get cashback from those paying via Cash.

1. 10125
2. 10000
3. 10075
4. 9850
5. 10150

Correct Option - 2

Ques. 97. Total 800 people went to restaurant R. Find the difference between the number of customers getting 20% cashback and the number of customers using Cash.

1. 92
2. 57

3. 87
4. 42
5. 72

Correct Option - 5

Ques. 98. If 350 people are using Mobile Wallet in restaurant S, then find the total number of people getting 10% cashback on Cash.

1. 185
2. 215
3. 180
4. 205
5. 195

Correct Option - 5

Read the question carefully and answer.

Ques. 99. ABC is a three-digit number. When ABC is multiplied by a single digit number X, the product is 224. In that three-digit number ABC, the digit at tens place is equal to half of X. Which of the following statement(s) is/are correct about ABC? (i) Unit digit in ABC is 2 (ii) ABC is a prime number (iii) Sum of digits of ABC is 4

1. Only (i) and (iii)
2. Only (i) and (ii)
3. Only (iii)
4. All (i), (ii) and (iii)
5. None of these

Correct Option - 1

Read the passage carefully and answer the question.

There are two bags A and B having balls of colors red, blue, green and yellow. They have 56 and 44 colored balls (not necessarily in that order). Only one of the bags has yellow color balls. In bag A, the difference between red and blue color balls is 8. In both bags, the number of green balls is half of the red color balls in that same bag. The difference between red and blue balls of bag B is 6. The yellow balls are 4 more than the number of green balls in the bag containing yellow balls. Average number of balls in bag A and B are 14 and 11 respectively.

Ques. 100. Quantity I: Find the difference between blue balls of A and red balls of B.

Quantity II: Difference between yellow balls of bag containing it and number of green balls in bag B.

1. Quantity I > Quantity II
2. Quantity I < Quantity II
3. Quantity I $\geq$ Quantity II
4. Quantity I $\leq$ Quantity II
5. Quantity I = Quantity II or can't be determined

Correct Option - 1

Solve the number series to answer the following questions.

Series: [square root of A], 29, B, C, 113, B+87

Note: (i) 'n' is a positive integer. (ii) Difference between 29 and B is X, which has 3 factors excluding X itself, those are 1, 3 and A, but when we include X then number of factors become 4.

Ques. 101. What is the value of A + C?

1. 91
2. 93
3. 89
4. 95
5. 97

Correct Option - 2

Ques. 102. What is the LCM of (B+20) and A?

1. 76
2. 342
3. 504
4. 684
5. 846

Correct Option - 4

Solve the series to answer the following questions.

Series I: 25, 50, 10, 20, 4, 8

Series II: 100, W, X, Y, Z, 32

Note: Both series follow the same pattern.

Ques. 103. Find the difference between (Y+X) and (Y+Z)

1. -24
2. 8
3. 24
4. 56
5. 64

Correct Option - 3

Ques. 104. If a new series starts with the value of (W-X) following the same logic mentioned in the above series, then what is the 3rd term of the newly formed series?

1. 58
2. 60
3. 62
4. 64

5. 66

Correct Option - 4

Ques. 105. If roots of a quadratic equation are W/X and $(W-X)/16$ (using $W=200$, $X=40$), then find the quadratic equation whose variable is r .

1. $r^2 - 15r + 50 = 0$
2. $r^2 - 13r + 40 = 0$
3. $r^2 - 15r + 40 = 0$
4. $r^2 - 10r + 50 = 0$
5. $r^2 - 15r + 56 = 0$

Correct Option - 1

Solve the quadratic and answer the following questions.

A: $(x-2)^2 = -x^2 + 2^2 + 5x - P$

B: $(2y^2 - 3y + 2/3) * 3 - 2y + 2 = 0$

One root of equation A is 5.

Ques. 106. What is the value of $(7P/35) \times (-P) + 2P + 7$?

1. $P+2$
2. $2P+2$
3. $P+1$
4. $2P-1$
5. None of these

Correct Option - 2

Ques. 107. If the smallest root of Equation A is multiplied by 7 (the largest one-digit prime number), what is the resulting value?

1. $-3 \frac{1}{2}$
2. $-3 \frac{1}{4}$
3. $3 \frac{1}{2}$
4. $-4 \frac{1}{2}$
5. $-2 \frac{1}{2}$

Correct Option - 1

Ques. 108. Which of the following are the roots of Equation B?

1. $1/3, 4/2$
2. $1/2, 4/3$
3. $2/3, 3/4$
4. $1/4, 3/2$
5. None of the above

Correct Option - 2

Solve the equations and answer the following question.

$\sqrt{x+45-mn}^4 = 5x+Q$. One root is -10, where m and n are roots of the equation given below:

$$Y^2-11Y+30=0$$

Ques. 109. Quantity I: $Q/2$

Quantity II: $Q/2^2$

1. Quantity I < Quantity II
2. Quantity I > Quantity II
3. Quantity I = Quantity II
4. Quantity I $\leq$ Quantity II
5. Quantity I $\geq$ Quantity II

Correct Option - 2

Read the information carefully and answer the following question.

Ques. 110. Quantity I: $[(3a^3-3b^3)(a+b)] / [(8a^2+5ab+7b^2-5a^2-2ab-4b^2)(a^2-b^2)]$

Quantity II: Value of $P - 2Q$ if $Q < (-1) < P$, where P and Q are integers.

1. Quantity I < Quantity II
2. Quantity I > Quantity II
3. Quantity I = Quantity II
4. Quantity I $\leq$ Quantity II
5. Quantity I $\geq$ Quantity II

Correct Option - 1

Read the information carefully and answer the following questions.

A cube of side P cm is placed inside a sphere of radius R cm in such a way that the sphere touches all the vertices of the cube. A cone of radius $\sqrt{3}R$ cm and height H cm has volume 462 cm^3 (take $\pi = 22/7$).

Ques. 111. Find the ratio of the total surface area of the sphere to the lateral surface area of the cube.

1. $3\pi : 4$
2. $4 : 3\pi$
3. $3 : 4$
4. $4 : 3$
5. $2\pi : 3$

Correct Option - 1

Ques. 112. Determine the relation between P and H .

1. $P^2 \times H = 196$
2. $P^2 \times H = 98$

3. $P \times H^2 = 196$
4. $P^2 \times H = 169$
5. $P \times H = 196$

Correct Option - 1

Read the question carefully and answer.

Ques. 113. A four-digit odd number 'A' whose unit digit is not 5 and when divided by a prime number gives a resultant as a three-digit number 'B' whose tens place is 0. Sum of digits of A is 8 while that of B is 5. Which of the following statement(s) is/are correct about A and B? I. Product of the digits of A is equal to its sum of the digit II. Difference between the hundreds place digit of A and B is 3 III. Sum of A and B is 1624

1. Only (II)
2. All of the above
3. Only (III)
4. Only (I)
5. Only (I) and (III)

Correct Option - 5

Read the information and answer the following questions.

Four stations J, K, L, M are arranged such that a train travels from J to M via K and then L. Distance J-K = (k^2+100) km, distance K-L = $(20k+100)$ km, distance L-M = 80 km. Train Y starts from station J and continues travelling to station M via K and L. Total distance travelled is 1080 km in 15 hours.

The table below shows the time to cross a pole and time to cross a platform for three trains X, Y and Z.

Note: Average time taken by all the trains to cover the platform is $(Q+6)$ seconds and length of platform = 400 metres.

Train	Time to cross pole (sec)	Time to cross platform (sec)
X	$0.5k - 5$	Q
Y	11	$Q+6$
Z	$0.3k + 2$	

Ques. 114. If the length of train Z is the average of the lengths of trains X and Y, find the speed of train Z (in km/hr).

1. 60 km/hr
2. 64 km/hr
3. 68 km/hr
4. 72 km/hr
5. 75 km/hr

Correct Option - 4

Ques. 115. Find the ratio of Q (platform-crossing time of train X) to the platform-crossing time of train Z.

1. 20 : 31
2. 22 : 35
3. 25 : 37
4. 23 : 36
5. 25 : 39

Correct Option - 3
