

Reasoning Test-3(Main)

Direction(1-5):- Read the following information carefully and answer the given questions.

Twelve members – J, K, L, M, R, S, T, U, V, X, Y and Z of a three generation family are sitting in two parallel rows containing six persons each in such a way that there is an equal distance between adjacent persons. In row 1 all of them are facing north while in row 2 all of them are facing south. Each person in row 1 faces another person in row 2.

Note I: No two female members are sitting together or facing each other.

Note II: There is no single parent in the family.

Two persons sit between M and M's nephew, who sits at an end. T faces M's wife, who sits adjacent to M. T sits second to the right of Z, who is the son of M's niece. Z faces M's daughter, who is unmarried. As many persons sit to the right of M's daughter as to the right of M's niece. M's niece sits immediate left of M's son. The sister in law of M sits adjacent to R, who faces the one who sits third to the right of L. L doesn't have siblings. Y faces X, who is the daughter in law of M. Only one person sits between V and X. M's brother, who is married, sits immediate left of the one who faces K. The number of persons sitting to the right of S is **two more than** the number of persons sitting to the left of K. Neither S nor R sits adjacent to each other. Three persons sit between J and the M's grandson, who does not face the south.

Q1. As many persons sit between the father of Z and the father of Y as between _____ and _____.

1.Daughter in law of L, Wife of J 2.Mother of Y, Son of R 3.Son of T, Father of S
4.Uncle of U, Brother in law of L 5.Son of L, Daughter of K

Q2. Which of the following pairs of persons sit on the same row?

1.K, M 2.U, V 3.T, S 4.M, J 5.R, L

Q3. Match the following persons and their relations with respect to X?

Person	Relation
p) T	i) Mother in law
q) S	ii) Father in law
r) M	iii) Sister in law
s) L	iv) Husband

1.p-iv, q-iii, r-ii, s-I 2.p-iii, q-iv, r-ii, s-I 3.p-iii, q-iv, r-i, s-ii 4.p-i, q-ii, r-iii, s-iv 5.None of these

Q4. How many persons sit between M's sister in law and L's daughter in law?

As many persons sit between V's son and R's mother in law.

One less than the number of persons sitting between L and U.

As many persons sit between V and K.

As many persons sit to the right of the father of Y.

One more than the number of persons sitting between T's son and K's husband.

Q5. Which of the following statement(s) is/are true with respect to the final arrangement?

i) The niece of M faces M.

ii) No one sits to the right of the mother of Y.

iii) S does not sit on the same row as U.

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

Direction(6-8):-Study the following information carefully and answer the given questions.

Six persons – P, Q, R, S, T, and U went to the weekly mela and bought six different household items viz.- Tongs, Knife, Whisk, Peeler, Spatula, and Board at Rs. 60, 75, 80, 90, 105, and 110. After sometime they sold back these items at Rs. 60, 75, 80, 90, 105, and 110. No two items were bought and sold at the same price.

Note:

I. None of the items were sold back at the same price at which they were bought.

II. The difference between the buying and selling price of each item is not less than Rs. 15.

S bought Tongs but neither at Rs.105 nor 75. R sold his item at Rs.75. Knife was bought by neither T nor P but sold out at Rs.60. The buying price of Spatula is 20 less than the selling price of Peeler. Board was bought at Rs.15 more than the buying price of Spatula. Neither U nor P bought Peeler. The buying price of Whisk is same as the selling price of Peeler. Whisk was not bought by P and R. P neither bought Spatula nor bought the item at Rs.105. The selling price of the item bought by P is same as the buying price of Peeler. The selling price of the item bought by U is same as the buying price of Tongs.

Q6.Which of the following item was bought by Q?

1.Peeler 2.The item which was sold at Rs. 60 3.Board
4.The item which was bought at Rs. 105 5.Whisk

Q7.Which of the following combination is not true?

1.U – Whisk 2.T – Spatula 3.P – Board 4.Q – Knife 5.S – Tongs

Q8.The difference between the buying price of the item bought by _____ and S is _____ more than the difference between the selling price of the item bought by U and _____.

1.P, 15, S 2.Q, 25, P 3.T, 5, R 4.U, 10, T 5.R, 15, Q

Direction(9-12):- Study the following information carefully and answer the given questions.

A number arrangement machine, when given an input line of numbers, it performs some mathematical operations in each step.

Input: 87392 83652 74639 21584 75394

Step I: 7378 3368 5367 3148 5357

Step II: 7569 3489 5429 3321 5359

Step III: 6597 9438 9425 2331 5395

Step IV: 1512 1212 119 54 148

Step V: 2423 2323 228 45 257

Step V is the final step of the above input.

As per the rules followed in the given steps, find appropriate steps for the given input

Input: 76843 83235 64381 57834 37916

Q9. Which of the following steps has the second-highest number of prime digits?

I. Step I and V **II.** Step II and III **III.** Step V

1. Only I and II 2. Only II 3. Only I and III 4. Only II and III 5. Only III

Q10. In step II, all the odd digits are dropped, then find the sum of all the remaining digits?

- 1.54 2.36 3.48 4.52 5.76

Q11. which of the following input(s) has the final output that is exactly divided by 4?

- 1.64381 and 83235 2.37916 and 57834 3.83235 4.57834 and 83235 5.76843

Q12. what is the difference between the output of “37916” in step III and the output of “83235” in step IV?

- 1.1348 2.1288 3.1178 4.1096 5.1378

Direction(13-17):- Study the following information carefully and answer the given questions.

Twenty-two persons are working in a company under different designations, such as Clerk, Assistant Manager (AM), Manager, Deputy General Manager (DGM), General Manager (GM), and Director. The designations are given in increasing order, such that Clerk is the junior-most designation and Director is the senior-most designation.

Note I: The sum of the number of persons working as Manager and Clerk is 10. The difference between the number of persons working as Assistant manager and Manager is 3. The sum of the number of persons working as Director and Assistant manager is 4. The number of persons working as General Manager is 3, which is one less than that of Manager. The number of persons working as Deputy General Manager is four more than that of Assistant manager.

Note II: If A works with B, then it means both A and B are working under the same designation.

Z is immediate junior to M, who is designated as junior to Deputy General Manager, but Z is not designated as Clerk. B works with K, and the number of persons working on the same designation is a prime number. The number of persons who work with T is **one less** than the number of persons who work with X. X is designated neither as Director nor with M. E doesn't work with T. E is senior to P but junior to F. P neither works with T nor is junior to the Manager, and the number of persons work in P's designation is not a prime number. A is junior to more than three but less than seven persons. R works with both G and H but is junior to D. I work with either the Director or General Manager. C is senior to D but works with I. The number of designations junior to J is **three less** than the number of designations senior to W. L is neither junior to J nor senior to C, where J is not junior to Assistant Manager. The number of persons who work with L is less than the number of persons who work with D. U is senior to V but junior to Q. More than three persons are designated between Q and U.

Q13. Which of the following pairs of persons are designated as Deputy General Manager?

- I.** L and T **II.** B and K **III.** A and D

1. Only II 2. Only I and II 3. Only III 4. Only I and III 5. Only II and III

Q14. The number of persons junior to M is ___ than the number of persons senior to ___.

1. Eleven more; Z 2. One less; Q 3. One more; U 4. Four less; J 5. Five more; A

Q15. T works in which of the following designations?

1. Director 2. Clerk 3. Deputy General Manager 4. Assistant Manager
5. Manager

Q16. What is the difference between the number of persons working with G and E?

- 1.3 2.5 3.0 4.4 5.2

Q17. Who among the following persons works in the same designation?

- I.** BKQ **II.** DMPJ **III.** AKT

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

Direction(18-21):- Study the following information carefully and answer the given questions.

In a certain code language,

“Corporate associate meeting held” is coded as “PS4@ M%4# YS6# M%2@”

“White sugar calorie gained” is coded as “US3@ T%18@ VS1@ S%2@”

“Charger material victim punished” is coded as “KS1# ZS9# ZS15@ PS12@”

“Chocolate makes mind relaxed” is coded as “RS14# P%2@ RS6@ NS9@”

“Company best health product” is coded as “PS22@ IS18@ NS4@ ZS0#”

(Note: All the given codes are 2 symbols, 1 letter, and 1 number code only).

Q18. Which of the following is the code for the phrase ‘Subject Matter’ in the given code language?

1. Z%1@ IS5# 2. B\$1@ R%5# 3. Z\$1@ IS5# 4. BS1@ RS5# 5. Z\$39@ T\$5#

Q19. Which of the following word is coded for the code “Z%8@” in the given code language?

1. Laptop 2. Mobile 3. Computer 4. Keyboard 5. Tablet

Q20. Which of the following is the code for the phrase “Dairy procedure” in the given code language?

1. R\$21@ L%11@ 2. T%21@ P%10@ 3. R\$21@ P%11@ 4. T\$21@ P%11@
5. T%21# P\$11@

Q21. Which of the following combinations is correct as per the given code language?

1. Banking – O%5@ 2. Course – I%2# 3. College – R\$2@ 4. Homeland – Q\$4#
5. Waterfalls – J\$4@

Direction(22-25):- In each of the following questions, three rows of numbers are given. The resultant number in each row is to be worked out separately based on the following rules, and the question below the rows of numbers is to be answered. The operations of numbers progress from left to right.

Rules:

i) If an even number is followed by an odd prime number, then the difference between the numbers is taken.

ii) If a prime number is followed by an even number, then add both numbers.

iii) If an even number is followed by an odd number (non-prime number), then subtract the squares of the unit digits of both numbers.

iv) If a perfect square number is followed by another square number, then the unit digits of both numbers is taken respectively.

v) If none of the above conditions are satisfied, then add the digits which are immediately preceded the unit digits of both numbers.

Q22. What is the difference between the resultant of sum of the resultant of row 1 and 3 and the resultant of row 2?

31 12 34
08 17 25
16 25 18
1.14 2.13 3.11 4.10 5.15

Q23. If X is equal to the resultant of row 2 and Y is the square of the value of X, then find the sum of the values of X and Y?

42 39 X
86 93 74
47 Y 62
1.89 2.97 3.80 4.90 5.93

Q24. What is the sum of the resultant of all the three rows?

42 29 45
13 28 22
49 36 26
1.93 2.97 3.91 4.94 5.79

Q25. If the value of M is half of the sum of the resultant of row 1 and row 2, then find the difference between row 1 and row 3?

18 31 56
16 64 78
17 M 19
1.69 2.68 3.79 4.89 5.99

Direction(26-30):- Study the following information carefully and answer the given questions.

Nine persons – A, E, R, B, T, P, F, W, and K- are sitting in a linear row of eleven chairs marked 1 to 11 from the left end, and all the chairs are facing south. Two chairs are vacant.

Note I: Neither the chairs at the end of the row nor the adjacent chairs are vacant. E sits sixth from the right end. Only two persons sit between T and W, who sits third to the right of E. No one sits between K and T, who sits at a prime number chair. P sits to the left of K. As many persons sit to the right of P as to the left of R. A sits to the right of R, who doesn't sit left of vacant chair. The chairs that are vacant are not a multiple of 3. The number of persons sitting to the right of F is **three more** than the number of persons sitting to the left of B. F does not sit to the left of B, and both F and B sit adjacent to neither P nor W.

Q26. Which of the following statement(s) is/are true with respect to the number of persons between W and K?

- I.** As many persons sit to the left of T
II. As many persons sit between A, and the one who sits third to the right of P
III. As many persons sit to the left of E
1. Only II 2. Only I and III 3. Only I and II 4. Only III 5. All I, II, and III

Q27. What is the position of F with respect to R and P respectively?

1. Third to the left; fourth to the right 2. Fifth to the right; third to the left

3. Second to the left; sixth to the right 4. Third to the right; fourth to the left
5. Third to the right; third to the left

Q28. Who among the following persons sit between both the vacant seats?

A. E **B.** The one who sits third to the left of R **C.** The one who sits fourth to the right of B

1. Only B 2. Only A and B 3. Only B and C 4. Only C 5. All A, B, and C

Q29. In which of the following options, the third person sits between the first and the second person as per the final arrangement?

I. AWR **II.** FPT **III.** KPB

1. Only I and III 2. Only I and II 3. Only II 4. Only II and III 5. Only III

Q30. Who among the following persons sits second to the right of T?

1. The one who sits third from the left end 2. The one who sits between W and E
3. R 4. The one who sits immediate left of R 5. Vacant seat

Direction(31-33):- Study the following information carefully and answer the given questions.

“A!B” means “A is the mother of B”.

“A@B” means “B is the sister of A”.

“A#B” means “A is the daughter of B”.

“A\$B” means “B is the father of A”.

“A%B” means “A is the spouse of B”.

“A^B” means “B is the brother of A”.

“A&B” means “A is the son of B”.

“*” -> means “in-law”

Z\$X; Y&*X; Y@R#T%Q; U!Z##Q!R

Q31. If M&E&*T&L, then how Y is related to E and L respectively in the given family?

1. Brother; Son 2. Sister-in-law; Grand child 3. Brother-in-law; Grand son
4. Son-in-law; Daughter 5. Brother; Grand son

Q32. If L is the husband of K, who is the mother of S, then the number of male members in the family is __ than the number of female members in the given family. Z\$X; Y&*X; Y@R#T%Q; U!Z##Q; E&*T&L

1. One more 2. Two less 3. One less 4. Two more 5. Cannot be determined

Q33. How is T related to Z in the given family?

1. Father 2. Sister 3. Mother 4. Father-in-law 5. Mother-in-law

Q34. Eight persons – P, Q, R, S, T, U, V, and W, are sitting around a circular table facing the center. Who among the following sits opposite to T?

Statement I: R sits third to the right of V. One person sits between T and R (either from the left or right of T). W sits to the immediate right of T. Only two persons sit between W and Q (either from the left or right of W).

Statement II: P sits to the immediate right of S. Two persons sit between P and W (either from the left or right of P). T sits second to the left of W. As many persons sit between S and W as between T and V. Q sits second to the left of R, who does not sit adjacent to W.

1. Only I 2. Only II 3. Either I or II 4. Both I & II 5. Neither I nor II

Q35. Seven persons – A, B, C, D, E, F, and G are living on the seven different floors in the same building, where the bottom most floor is numbered as 1 and

the floor immediately above it is numbered as 2 and so on till seven, then who lives on the sixth floor?

Statement I: A lives two floors below G. Only four persons live between B and G. The number of floors above A is **one less** than the number floors below C. E does not live above C.

Statement II: E lives on one of the floors below the third floor. Only one person lives between E and A. As many floors between A and C as between D and A. G lives above C.

1. Only I 2. Only II 3. Either I or II 4. Neither I nor II 5. Both I & II

Direction(36-39):- Study the following information carefully and answer the below questions.

Eight persons – P, Q, R, S, T, U, V, and W are living in five floored buildings marked 1 to 5 from bottom to top. There are two flats on each floor viz.- flat I and flat II from west to east respectively. One person lives on each flat and two flats are vacant. None of the adjacent flats are vacant. Each person likes different numbers viz.- 14, 16, 19, 23, 27, 28, 32, and 35. All the information is not necessary in the same order.

Note: Adjacent flats are considered as flats which are immediate east, immediate west, immediately south and immediately north.

The one who likes 16 lives two floors above R, who lives on an odd numbered floor but both of them live in different flat type. A person living immediately above the flat of the one who likes 16 lives west of the one who likes 27. W lives three floors away from P, both are not living on the same flat type. P likes a number which is 5 less than Q and not living in the same flat as the one who likes 16. The sum of the number liked by Q and S is twice the number liked by U. Neither S nor W likes 35. T lives west of the one who likes 35. T likes a number which is twice the number liked by V. None of the flats on the top floor is vacant. V lives on the floor immediately below the one who likes 19. No one lives immediately below V's flat.

Q36. Who among the following person lives two floors below S?

1. U 2. The one who likes 14 3. V 4. The one who likes 32 5. None of these

Q37. Who among the following person likes 28?

1. U 2. The one who lives immediately below S's floor 3. T 4. The one who lives west of U 5. None of these

Q38. If V is related to the one who likes 14, similarly W is related to the one who likes 27, then who among the following person is related to the one who likes 35?

1. The one who likes 16 2. None 3. P 4. The one who likes 28 5. Q

Q39. How many floors are above P's flat?

1. None of these 2. Four 3. As many floors are below V's flat 4. One 5. As many floors are below Q's flat

Q40. If all the letters of the given words are changed to their opposite letter in alphabetical order from the left end, then which of the following words has the maximum number of vowels?

I. SOFTWARE II. DEVELOPMENT III. TECHNOLOGY

1. Only III 2. Only II 3. Only I and III 4. Only I and II 5. Only I

Direction(41-43):- In the following questions, the symbols @, #, \$, %, ! are used with the following meaning as illustrated below:

'A @ B' means 'A is neither smaller than nor equal to B'.

'A # B' means 'A is not smaller than B'.

'A \$ B' means 'A is not greater than or equal to than B'.

'A % B' means 'A is not greater than B'.

'A ! B' means 'A is neither greater nor smaller than B'.

Now in each of the following questions assuming the given statements to be true, find which of the conclusions given below is/are definitely true?

Q41. Statements:- P # Q, Q \$ R, R ! S, S % T

Conclusions:- I). P @ R II). P @ S III). Q \$ T

1. Only III 2. Both I and II 3. Both II and III 4. Neither I nor III 5. Both I and III

Q42. Statements:- D # F, F @ E, E \$ G, G ! H

Conclusions:- I). D ! H II). F @ G III). D # G

1. Only III 2. Both I and II 3. None of these 4. Neither I nor III 5. Both I and III

Q43. If in the following words, all the letters are changed to its corresponding number as per the alphabetical series then the 3rd, 5th, and 6th, 8th, 9th, and 10th digits are added, then which of the following words has the resultant, which is exactly divided by 6?

I. TELEVISION II. CAMERAMAN III. SUPERVISOR

1. Only II 2. Only I and II 3. Only III 4. All I, II, and III 5. None

Direction(44-50):- A number rearrangement machine rearranges a given input into final output following certain rules. Study the following information carefully and answer the below questions.

Input: 432896 739258 582679 837265 943276 827369

Step I: 234698 (1) 268579 268357 (2) 268379

Step II: 234698 268357 (1) 268579 327496 (2)

Step III: (1) 122435 122463 (2) 62854 151472

Step IV: 49 (1) 100 (2) 225 64

Step V: (1) Z (2) Q (3) Q

Q44. What comes in place of (2) in step V?

1. N 2. Z 3. C 4. W 5. None of these

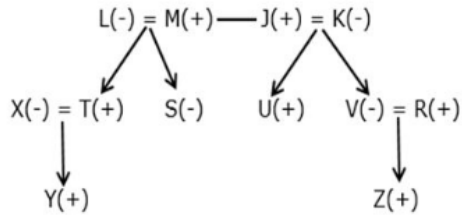
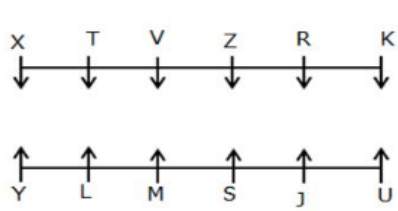
Q45. What comes in place of (1) in step III?

1. 62472 2. 124063 3. 124603 4. 64272 5. None of these.

Q46. What comes in place of (2) in step I?

1. 375298 2. 357298 3. 327598 4. 327496 5. None of these

Solution(1-5):- 2 4 1 5 3



Solution(6-8) 2 2 1

Name	Item	Buy	Sell
P	Board	75	105
Q	Knife	90	60
R	Spatula	60	75
S	Tongs	110	90
T	Peeler	105	80
U	Whisk	80	110

Solution(9-12):- 4 2 3 4

Input: 76843 83235 64381 57834 37916

Step I: 3368 3338 1168 3358 3137

Step II: 3489 3249 1481 3409 3211

Step III: 9438 4293 1418 9403 1231

Step IV: 1212 135 212 97 43

Step V: 2323 244 323 86 54

Step I: In this step, the difference between the highest odd digit and the lowest even digit is written and, then all the remaining digits are arranged in increasing order as per the numerical series, respectively.

Step II: From Step I, in each number, the 1st digit remains unchanged, then the product of the last two digits is written next, and then the square value of the 2nd digit is written last.

Step III: From step II, in each number, if the third last digit is a prime number that is interchanged with the second last digit and it is written at first and then the remaining letters are written in decreasing order as per the numerical series. If the third last digit is not a prime number that is interchanged with the last digit, and it is written at first, and the remaining letters are written in increasing order as per the numerical series.

Step IV: From step III, in each number, the sum of the oddly positioned digits is written first, and the sum of the evenly positioned digits is written last.

Step V: From step IV, in each number, 1 is added to all the digits that are less than 5, and 1 is subtracted from all the digits that are either greater or equal to 5.

Solution(13-17):- 5 4 3 1 2

Designations	Persons
Director (3)	F, C, I
General Manager (GM) (3)	L, E, Q
Deputy General Manager (DGM) (5)	B, K, T, A, D
Manager (4)	M, P, J, U
Assistant Manager (AM) (1)	Z
Clerk (6)	X, R, G, H, W, V

Solution(18-21):- 3 2 4 5

For letter: The corresponding number for the opposite letter of the third letter from the left end of the word is added to the total number of vowels in the word, and the corresponding letter for the resultant value is obtained from the English alphabetical series. (Note: If the getting value is more than 26, put Z as a letter in these cases.)

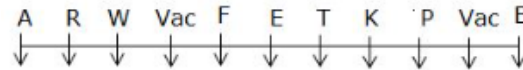
For the first symbol from the left end: If the last letter of the word is a consonant, then the code is \$. If the last letter of the word is a vowel, then the code is %.

For number: The difference between the corresponding number for the first and last letter of the word is obtained as per the English alphabetical series.

For the second symbol from the left end: If the word has an odd number of consonant letters, then the code is @. If the word has an even number of consonant letters, then the code is #.

Solution(22-25):- 3 4 5 2

Solution(26-30):- 3 1 5 2 2



Solution(31-33):- 3 5 3

Solution(34-35):- 2 5

Solution(36-39):- 2 4 2 5

Floor	Flat I	Flat II
5	W, 28	U, 23
4	Q, 19	S, 27
3	V, 16	----
2	---	P, 14
1	T, 32	R, 35

Solution(40):- 1

Solution(41-43):- 1 3 2

Solution(44-46):- 2 1 4

For step I: If the number is even, then even and odd digits are rearranged in ascending order within the same position, else if the number is odd, then first even followed by odd digits are arranged in ascending order.

For step II: All the numbers are rearranged in ascending order from left to right.

For step III: The product of the pair of digits is taken from left to right.

For step IV: The difference between the sum of odd and even digits within the number is taken and then take a perfect square of the resultant.

For step V: the digital sum of numbers is taken and then the reverse alphabetical position of the letter from the English alphabetical series is taken.