Directions (1-5) Study the following information carefully and answer the questions given below:

A certain number of persons are sitting in a row facing north. N sits fourth to the right of B. Only two persons sit between N and L. L sits sixth to the left of E. T sits eight to the left of E. B is second from one of the ends of the row. G sits adjacent to K and E. K is not an immediate neighbor of N. Less than 12 persons are sitting in the row.

1) If M sits fourth from the right end, then how many persons sits between L and M in the row?
   a) 4
   b) 2
   c) 3
   d) 5
   e) None of these

2) How many people sit in the row?
   a) 10
   b) 09
   c) 11
   d) 13
   e) 08

3) If P sits immediate left of N then what is the position of B with respect to P?
   a) Fifth to the left
   b) Sixth to the right
   c) Fourth to the right
   d) Third to the left
   e) None of these

4) Who among the following sits on the left end of the row?
   a) B
   b) T
   c) K
   d) E
   e) None of these

5) How many person sits between E and L?
   a) 5
   b) 6
   c) 4
   d) None
   e) 3

Directions (6-9): Read the conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts.

Give answer:
(a) If only conclusion I follows
(b) If only conclusion II follows
(c) If either conclusion I or II follows
(d) If neither conclusion I nor II follows
(e) If both conclusion I and II follow

6) Statements
Only a few apple are banana
some banana are orange
All mango is apple
Conclusions
Some apple are orange
No orange is apple

7) Statements
Some books are papers
only a few notes are books
No notes are pens
Conclusions
Some notes are not books
No pen is paper

8) Statements
Some circle are triangle
No triangle is rectangle
Only a few rectangle is square
Conclusions
Some square are triangle is a possibility
some square are not rectangle

9) Statements:
No onion is tomato
some onion is potato
No potato is Eggplant.
Conclusions:
Some onions are Eggplant
some potatoes are not onion.

Direction (10-14): Study the following information carefully to answer the given question:
Seven boxes P, Q, R, S, T, U and V placed in nine places from top to bottom with two empty boxes but not necessarily in the same order.
Two boxes are placed between V and T, which is placed below V. Four boxes are placed in between both the vacant boxes. Vacant boxes are not an immediate neighbor of V or T and vacant boxes do not placed either top or bottom. Three boxes placed are placed between Q and U which is an immediate neighbor of V. One box placed between V and S. R placed above from one of the vacant box. R is not an immediate neighbor of V. P does not place at the bottom.

10) How many boxes placed between V and R?
   a) Two
   b) Three
   c) One
   d) Four
   e) None of these

11) Which boxes placed at the top and bottom?
   a) Q and T
   b) S and T
   c) Q and R
   d) P and V
Direction (15-19): Study the following information carefully and answer the questions given below it.

Ten people A, B, C, D, E, P, Q, R, S and T are sitting in two rows. Five people in each row facing each other. A, B, C, D and E are facing north. P, Q, R, S and T are facing south but not necessarily in the same order.

12) Which box placed immediate above of P?
   a) Q
   b) V
   c) S
   d) T
   e) R

13) If Q is related to R, R is related V and to whom P is related?
   a) Q
   b) U
   c) Vacant
   d) T
   e) S

14) How many boxes are between S and T?
   a) None
   b) One
   c) Two
   d) Three
   e) Four

15) Who among the following sits diagonally opposite to S?
   a) D
   b) A
   c) B
   d) C
   e) None of these

16) Who among the following does not belong to the group?
   a) Q
   b) S
   c) C
   d) D
   e) E

17) Who sits opposite to A?
   a) P
   b) Q
   c) R
   d) T
   e) S

18) How many persons sitting between D and C?
Directions (20-22): In each of the following questions, relationship between different elements is shown in the statements followed by two conclusions. Find the conclusion which is definitely true.

Give answer:

a) If only conclusion I follows.
b) If only conclusion II follows.
c) If either conclusion I or II follows.
d) If neither conclusion I nor II follows.
e) If both conclusions I and II follow.

20) Statements:
C ≥ F > S = P < T ≤ R > M > N = J

Conclusions:
I) P < C
II) R ≤ J

21) Statements:

Conclusions:
I) F > R
II) R < O

22) Statements:
Q < D = G ≥ N < U ≤ Z = A < C

Conclusions:
I) Q > N
II) G ≥ C

Directions (23-25): Study the following information carefully and answer the questions given below:

Point P is 4m west of Point H. Point L is 3m north of Point P. Point M is 4m east of Point L. Point R is 5m north of Point M. Point V is 8m east of Point R. Point T is 8m south of Point V. Point D is 4m west of Point T. Point G is 6m north of Point D.

23) How far and in which direction Point H is with respect to Point D?

a) 4m, East
b) 4m, West
c) 3m, East
d) 3m, West
e) None of these

24) Point R is in which direction with respect to Point T?

a) North East
b) South East
c) South West
d) North West
e) None of these

25) Four of the following five are alike in a certain way based on the above arrangement. Find which one does not belong to the group?
   a) HL
   b) DM
   c) TG
   d) DR
   e) HV

26) How many such pairs of letters are there in the meaningful word “COMMERCIAL” each of which has as many letters between them in the word as in the English alphabet?
   a) Two
   b) Four
   c) None
   d) Three
   e) None of these

Directions (27-29): Study the following information carefully and answer the questions given below:
UKL GTE WAB CIN DEW

27) If each vowel is changed to next letter and each consonant is changed to previous letter according to alphabetical series, all the words are arranged in ascending order, then
   Which of the following word is fourth from the left?
   a) CFV
   b) VJK
   c) VBA
   d) BJM
   e) None of these

28) How many letters are there as per English alphabetical order between second letter of third word and second letter of fourth word from the left end when all the words are arranged alphabetically?
   a) 10
   b) 8
   c) 11
   d) 9
   e) None of these

29) If first and last letters are interchanged, second letter is changed to second next letter in alphabetical series, then how many meaningful English words can be formed?
   a) None
   b) Two
   c) Three
   d) Four
   e) None of these

30. How many meaningful English words can be formed with the letter
‘TRINCEOD’ using each letter only once in each word?

a) One  
b) Two  
c) Three  
d) Four  
e) None of these

Directions (31-35): Study the following information carefully and answer the questions given below:

Eight men - A, B, C, D, E, F, G and H are sitting in the circular table. They are facing inside not necessarily in the same order.

Only one person sitting between A and B. H sits third to the left of B. Only one person sits between D and C. Both D and C are not the immediate neighbor of B. F sits second to the right of E. F is not the immediate neighbor of B. G is not the immediate neighbor of A. G sits third to the right of D.

31) What is the position of F with respect to B?
   a) Third to the right  
b) Second to the right  
c) Second to the left  
d) Immediate right  
e) None of these

32) Four of the following are alike in a certain way and form a group. Which among the following person does not belong to the group?
   a) E-H  
b) B-D  
c) F-G  
d) A-B  
e) A-C

33) How many persons are there between A and C when counted from right of A?
   a) Four  
b) Three  
c) One  
d) Two  
e) None of these

34) Who sits second left of B?
   a) B  
b) A  
c) D  
d) C  
e) F

35) Who sits opposite to G?
   a) A  
b) E  
c) F  
d) B  
e) C
Directions (36-40): What will come in the place of question mark (?) in the following number series:

36) 11, ?, 16, 21, 29, 41
(a) 12
(b) 14
(c) 15
(d) 13
(e) 11

37) 1800, ?, 60, 15, 5, 2.5
(a) 300
(b) 600
(c) 120
(d) 240
(e) 360

38) 4, 3, 4, 9, 32, ?
(a) 75
(b) 155
(c) 125
(d) 175
(e) 165

39) ?, 100, 150, 375, 1312.5
(a) 50
(b) 100
(c) 75
(d) 25
(e) 200

40) 0, 6, 24, 60, ?, 210
(a) 130
(b) 170
(c) 90
(d) 120

Directions (41-45): Study the bar chart given below and answer the following questions.

Bar chart shows the number of books read by 4 different persons (A, B, C & D) in 2005 and 2006.

41) Find average number of books read by A, C & D in 2005.
(a) 64
(b) 70
(c) 75
(d) 60
(e) 56

(a) 15 : 16
(b) 5: 6
(c) 1: 5
(d) 4: 7
(e) 2: 3
43) Books read by A & C together in 2005 are how much more or less than books read by B & D together in 2006?
(a) 24
(b) 14
(c) 18
(d) 22
(e) 28

44) Books read by B & C together in 2006 are what percent of books read by B in 2005?
(a) 100%
(b) 120%
(c) 250%
(d) 200%
(e) 160%

45) Books read by A & B together in 2005 are what percent more than books read by C in 2006?
(a) 46⅔%
(b) 54⅓%
(c) 25⅔%
(d) 33⅓%
(e) 66⅔%

Directions (46-55): - What will come in place of (?) question mark in the following questions?

46) 17.28 ÷ ? / 3.6 * 0.2 = 200
(a) 120
(b) 1.20
(c) 12
(d) 0.12
(e) None of these

47) 486 ÷ ? × 7392 ÷ 66 = 1008
(a) 54
(b) 55
(c) 52
(d) 53
(e) 51%

48) 14²/₇% of 4200 ÷ √576 = (?)¹/₂₀%
(a) 125
(b) 225
(c) 25
(d) 5
(e) 625

49) ²/₇ * ⁵/₆ + ³/₈ * ? = 90
(a) 1208
(b) 1108
(c) 1008
(d) 1128
(e) 1348

50) (0.05 × 6.25) ÷ 2.5 = ?
(a) 12.55
(b) 0.125
(c) 0.115
(d) 1.25
(e) None of these

51) 1496 ÷ 17 = ?% of 220
(a) 25
(b) 40
(c) 50
(d) 75
(e) None of these
52) \((36\% \text{ of } 180) \div 0.4 = ?\)

(a) 160  
(b) 164  
(c) 166  
(d) 162  
(e) 180

53) \(0.08\% \text{ of } 55500 - 16.4 = ?\)

(a) 26.6  
(b) 28  
(c) 29.2  
(d) 30.4  
(e) 32

54) \(35\% \text{ of } 150 \times 16 = ? - 22\)

(a) 865  
(b) 932  
(c) 864  
(d) 862  
(e) None of these

55) \((3080 + 6160) \div ? = 330\)

(a) 26  
(b) 22  
(c) 28  
(d) 29  
(e) 18

56) Difference of the compound interest received in first year and second year at 20% per annum at CI is Rs 1200 then find the sum?

(a) Rs 25,000  
(b) Rs 36,000  
(c) Rs 35,000  
(d) Rs 24,000  
(e) Rs 30,000

57) Find the total distance covered by boat in each upstream and downstream in 7 hours if the speed of boat in still water and speed of current is 21 km/h and 3 km/h respectively?

(a) 280 km/hr  
(b) 294 km/hr  
(c) 315 km/hr  
(d) 301 km/hr  
(e) 322 km/hr

58) Ratio of income of A to that of B is 5:9. If expenditure of A is \(\frac{3}{8}\text{th}\) of his income and expenditure of B is \(\frac{4}{9}\text{th}\) of his income and sum of their saving is Rs 1950 then find the difference between their income?

(a) Rs 900  
(b) Rs 1000  
(c) Rs 880  
(d) Rs 960  
(e) Rs 920

59) A alone can do a work in 12 days while A and B together can do that work in 7.5 days. Find the time taken by C alone to do that work if C takes 3 days more than that of B alone to do that work?

(a) 33 days  
(b) 30 days  
(c) 23 days  
(d) 27 days  
(e) 28 days

60) Ratio of base and perpendicular side of a right-angled triangle is 3:4 and its base is equal to the side of a square having area 81 cm². Find the perimeter of the triangle?

(a) 30 cm  
(b) 36 cm  
(c) 33 cm  
(d) 42 cm  
(e) 40 cm
Directions (61-65): In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

(a) if x>y
(b) if x≥y
(c) if x<y
(d) if x≤y
(e) if x = y or no relation can be established between x and y.

61) I. \(x^2 - 13x + 40 = 0\)
   II. \(2y^2 - y - 15 = 0\)

62) I. \(5x^2 + 17x + 6 = 0\)
   II. \(2y^2 + 11y + 12 = 0\)

63) I. \(7x^2 - 19x + 10 = 0\)
   II. \(8y^2 + 2y - 3 = 0\)

64) I. \(x^2 - 8x + 15 = 0\)
   II. \(y^2 - 3y + 2 = 0\)

65) I. \(3x^2 - 7x + 4 = 0\)
   II. \(2y^2 - 9y + 10 = 0\)

66) A person travels half of the distance at the speed of x km/h and remaining half of the distance at 4x km/h. Find the value of 'x' if the average speed is 36.8 km/h?

(a) 21
(b) 25
(c) 24
(d) 23
(e) 20

67) A, B and C invested in a ratio of 7: 8: 5 in a business. They got an annual profit of Rs. 136800. If A and C withdrew their amount at the end of 3 months and 7 months respectively. Then find the difference between A and C’s share of profit?

(a) Rs. 12,600
(b) Rs. 11,500
(c) Rs. 13,500
(d) Rs. 10,500
(e) Rs. 13,000

68) Retailer sold one article at profit and another at 100% profit. Find his overall profit percentage if the selling price of both the article is same?

(a) 60%
(b) 55%
(c) 66\(\frac{2}{3}\)%
(d) 75%
(e) 56\(\frac{2}{3}\)%

69) A mixture has milk and water in the ratio 4: 1. When 50% of the mixture is taken out and replaced by 24 liters of water then the ratio of milk to water in the mixture becomes 1: 1. Find initial quantity of mixture.

(a) 80 liters
(b) 45 liters
(c) 70 liters
(d) 60 liters
(e) 75 liters

70) 4 years ago, ratio of Shivam’s age to Deepak’s age was 2: 3 and ratio of Shivam’s age 4 years ago to Deepak’s age 5 years hence is 8: 15. Find present age of Shivam.

(a) 32 years
(b) 28 years
(c) 40 years
(d) 24 years
(e) 36 years
Directions (71-78)- Read the following passage and answer the following questions based on the given passage. Some of the words are highlighted which would help you to answer some of the questions given.

For years, world-wide organisations have become increasingly excited about the prospect of a cloud-based future. As the dream becomes an ever closer reality for many kinds of business and, Forrester predicted that enterprise spending on cloud services is set to surge. IDC also predicted that global spending on public cloud services and infrastructure would reach $210bn in 2019, an increase of 24% from 2018. But one obstacle stands create friction and introduce risk: the process of migration. As all indications point to a massive shift in data deployments to the cloud, it is more important than ever that the transition from on-premises to Cloud is as risk free as possible. In today’s climate any loss or disruption to data can have a huge business impact. It’s a complex process, is frequently underestimated and many organisations have found there’s lots that can go wrong that can impact the business. Organisations across the globe have found the cloud to be an ideal place to run modern data applications due to big data’s elastic resource requirements. Furthermore, with the lack of data talent an ever-looming issue for most companies today they have been determined to adopt a cloud-first strategy to ensure business operations are accessible for a range of employees. The cloud offers great promise for developers especially, as it can increase the speed at which they develop software features and increase the resilience of applications once they are deployed - along with enhanced security through the use of multiple server locations. With all this considered, it is no surprise that 42% of UK businesses leverage some kind of cloud service, according to Eurostat. However, all the perceived benefits of leveraging the cloud are redundant if organisations come up against barriers to accessing cloud services. Cloud-based data pipelines still suffer from complexity challenges at the moment, along with the lack of visibility into cost and resource usage at the application and user level. The answer to this is automation fueled by robust Machine learning training models and artificial intelligence. These concepts and the tools that enable them can determine the prerequisites of cloud infrastructure, application dependencies, the appropriate target cloud instance profiles, and provide troubleshooting in real-time. To summarise, the promise of the cloud has created a sense of excitement amongst enterprises, however, they have proceeded to go full steam ahead into adopting a cloud service, without sufficient data to ensure performance service level agreements (SLAs).

71) How can we tackle the risks associated with the process of migration?
(a) By ensuring that organisations only migrate the apps to the cloud that will thrive in the cloud.
(b) The surge in the investment in the cloud technology.
(c) The use of predictive power of Artificial Intelligence.
(d) The transition from on-premises to Cloud
(e) None of these

72) Why the promise of the cloud has created a sense of excitement amongst enterprises?
(a) As it ensures that business operations are accessible for a range of employees.
(b) As the enterprise spending on cloud services is surging.
(c) Reduction in the cost of operation it may entail.
(d) The secure platform it provides to the data it stores.
(e) None of these.

73) How the process of migration stands as an obstacle to the cloud technology?
(a) The expensive cost of providing safety to the data.
(b) The lack of sound technology in Artificial Intelligence.
(c) Complexities of the data migrated to the cloud
(d) It exposes the companies to the risk of losing important information.
(e) None of these

74) Which of the following statement(s) is/are correct in context of the passage?
(1) The cloud technology can help in increasing the speed at which the software features are developed.
(2) There is no risk associated with the cloud technology.
(3) Cloud technology is not a very complex process.
(a) Only (2)
(b) Both (1) and (2)
(c) Only (3)
(d) Only (1)
(e) All are correct

75) What is the meaning of the phrase “full steam ahead”? 
(a) Interrupting an activity
(b) Acting cautiously
(c) Great increase
(d) Progressing quickly.
(e) Prudent progression.

76. Which of the following words is most similar to the word “ADOPT” as given in the passage?
(a) mold
(b) deduce
(c) Embrace
(d) Creative
(e) Fluster

77. Which of the following words is most similar to the word “ENSURE” as given in the passage?
(a) Confirm
(b) Paced
(c) Redundant
(d) Weaken
(e) Reject

78. Which of the following words is most OPPOSITE to the word “MASSIVE” as given in the passage?
(a) Prominent
(b) Insignificant
(c) Enlarged
(d) Filthy
(e) Vouch

Directions (79-85): Read each sentence to find out if there is any error in it. The error, if any will be in one part of the sentence. The number of that part is the answer if there is no error, the answer is (e).

79) It is widely believe (a)/ that the village which is situated on the (b)/ eastern coast of India will be wiped out (c)/ within a decade. (d)/ No error. (e)

80) Yesterday I met (a)/ an old friend (b)/ when I am going (c)/ to the market. (d)/ No error. (e)

81) The criminal was (a)/ sentenced to the (b)/ death and was (c) hung for his crime (d)/ No error. (e)

82) FATF strongly urges (a)/ Pakistan to swiftly complete its action plan (b)/ by October 2019 to stop (c)/ terror funding in the country (d)/ No error. (e)
83) Elon musk is determined (a)/ to be success (b)/ in whatever field (c)/ he chooses. (d)/ No error (e).

84) New purchasing power will increasingly (a)/ come from Asia and Africa where (b)/ the demographics are still favorable (c)/ for high income growth. (d)/ No error (e).

85) Not only the (a)/ students but also (b)/ the principal were(c)/ laughing at the joke he cracked. (d)/ No error (e).

Directions (86-90): In each of the following sentences, there is a blank space. Below in each sentence, there are five words out of which one can be used to fill the blank to make the sentence grammatically and coherently correct. Find the most appropriate word that fit into the blank contextually.

86) There is nothing to indicate the building’s past, ________ the fireplace.
   (a) Except
   (b) Included
   (c) Belonged
   (d) Barred
   (e) Foster

87) Two circus elephants that performed together ________ when crossing paths 23 years later
   (a) Happy
   (b) Believe
   (c) Angered
   (d) Rejoiced
   (e) Greater

88) The law ________ farmers not only to save and resow (multiply) seeds, but also to sell them to other farmers, no matter what the original source of the seed is.
   (a) Coverts
   (b) Implements
   (c) Emits
   (d) Permits
   (e) Deserts

89) Small farmers must be educated and ________ with proper incentive structures, to engage with agriculture.
   (a) Fascinated
   (b) Encouraged
   (c) Discouraged
   (d) Harvested
   (e) Invited

90) Raipur despite being ________________ between two rivers, the Krishna and the Tungabhadra, it is a dust bowl in May first week.
   (a) Surrounded
   (b) Located
   (c) Revealed
   (d) Settle
   (e) None of these

Directions (91-95): Given sentences are not in their exact position. Rearrange them to make a coherent paragraph and then answer the questions given below.

A. It can even make exercise more fun and productive.
B. Plus, hearing others laugh, even for no apparent reason, can often trigger genuine laughter.
C. To add simulated laughter into your own life, search for laugh yoga or laugh therapy groups. Or you can start simply by laughing at other people’s jokes, even if you don’t find them funny.
D. A Georgia State University study found that incorporating bouts of simulated laughter into an exercise program helped improve older adults’ mental health as well as their aerobic endurance.
E. Believe it or not, it’s possible to laugh without experiencing a funny event—and simulated laughter can be just as beneficial as the real thing.
Directions (96-100): In the following questions, a sentence is divided into four parts consisting of a highlighted word in each part. Choose the option reflecting the word which is either misspelt or grammatically incorrect. If all the highlighted words are correct, choose option (e) i.e. “all are correct” as your answer choice.

96) A British court has ruled that British arms sales to Saudi Arabia wear unlawful on Humanitarian Grounds.
(a) Ruled
(b) Sales
(c) Wear
(d) Grounds
(e) All are correct

97) I’m tyred of hearing politicians making pious pronouncements about their devotion to the people
(a) Tyred
(b) Hearing
(c) Pious
(d) Devotion
(e) All are correct

98) It is likely that weaving prospered and partly relocated towards areas within easy reach of the army contractors.
(a) Prospered
(b) Relocated
(c) Within
(d) Contractors
(e) All are correct

99) This cat and mouse tactic was purposely designed to provoke, inrage and panic the unemployed.
(a) tactic
(b) Purposely
(c) Inrage
(d) Panic
(e) All are correct

100) Indian democracy’s robustness is underscored by high voter turnouts, and large number of candidates in the fray.
(a) Robustness
(b) Turnouts
(c) Cандidates
(d) Fray
(e) No correction required.