D.1-8) Read the given passage carefully and answer the given questions.

Scientists are baffled by the changes in the frequencies of the blue whale calls in the Diego Garcia region of the Indian Ocean. The niggling worry, though unsubstantiated yet, is that it could be due to the noise made by ships. For some years, Tarun K Chandrayadula, assistant professor, Department of Ocean Engineering, IIT Madras, has been studying blue whale movement by tuning into the mammals' calls in the Indian Ocean using the hydrophones deployed by the Vienna-based Comprehensive Test Ban Treaty Organization (whose objective is to detect nuclear tests.)

One of the great whales, recorded frequently near Diego Garcia, has been changing its calls a great deal. The whale call consists of multiple frequencies of 35-45 Hz. By deploying signal processing techniques, the researchers identified that some of the call frequencies decreased over the years, and some increased. While it is not for the first time that scientists observe a change in call frequencies, this instance is more intriguing because of its variation — an increase and decrease in frequencies — which makes it difficult to theorise a reason. There is worldwide concern on the increasing ship traffic and anthropogenic activity in the oceans, and their effect on marine life. Whales help maintain ecosystem balance, as also the carbon pump.

Some of the other causes looked at for the changing frequencies were changes in whale population, and selection pressure caused by mating or food. "However, we could not pin down a specific cause, " says Chandrayadula. "It could be a combination of these or something else. Studying the animal in the field will hopefully reveal the answer. "

Life in acoustics Blue whales are the biggest mammals alive. They reach sizes more than 25 m, which would equal five elephants standing side-by-side. They are great travellers, and move across ocean basins. Acoustics are a big part of their life. The whales use low-frequency calls to communicate and look for food. They also make some of the lowest frequency sounds, around 100 Hz and less, a lot of which you would not be able to hear. Human sounds are at frequencies 40 times that of whales. The frequency depends on the type of whale. For example, the Antarctic blue whale makes sounds at 27-28 Hz. And the Sri Lankan blue whales make sounds around 100 Hz. The type of whale Chandrayadula has been observing using acoustics is still unidentified. It is found in Diego Garcia and not elsewhere. Also, unlike other blue whales, this whale is unique, with call frequencies showing both increases and decreases.

If the purpose of the call is to communicate among the group for social cohesion, then there is not much incentive to change the call structure. On the other hand, if the call is a mating display, then there is an incentive to advertise higher sexual fitness than the others. Lower frequencies imply a bigger lung, and thus a larger body. While this explains the decrease in frequencies, it still does not explain the increase. "Is it because of ship noise, increase in whale populations, or whales trying to outdo each other in playing new tones… we don't have a single answer, " Chandrayadula says.

1. What is the specific cause for the change in call frequencies of whales?

(a) Selection pressure   (b) Changes in whale population

(c) Due to ship noise   (d) Trying new tones

(e) Not yet identified

Ans: e

2. Which of the following is/are true about blue whales?

(i) Blue whales are the biggest mammals alive.

(ii) They are equal to the size of five elephants standing side-by-side.

(iii) They are territorial to their ocean basins.

(iv) Acoustics are a big part of their life.

(a) Both (i) and (ii)

(b) Both (i) and (iv)

(c) All of the given except (iii)

(d) All of the given except (ii)

(e) All of the given

Ans: c

3. Choose the synonym of niggling.

(a) Intense　　　　　　　(b) Inciting

(c) Important　　　　　　(d) Annoying

(e) Concerning

Ans: d

4. According to the passage, what is/are the purpose of the call through frequencies?

(i) For mating display

(ii) For searching food

(iii) For social bonding

(iv) For communicating

(a) Only (i)

(b) Both (i) and (iv)

(c) Both (i) and (ii)

(d) All of the given except (iii)

(e) All of the given

Ans: e

5. According to the passage, how blue whales aid the planet?

(i) Maintain ecosystem balance

(ii) Reduces effect in marine life

(iii) Maintain carbon pump

(iv) Reduces carbon footprint

(a) Only (i)　　　　　　　(b) Only (iv)

(c) Both (i) and (iii)　　　(d) Both (ii) and (iv)

(e) All of the given

Ans: c

6. What is the technique used for identifying changes in call frequencies?

(a) Tuning into mammals' call

(b) Recording whale's frequencies

(c) Using frequency detectors

(d) Hydrophones

(e) Signal processing

Ans: e

7. Choose the antonym of intriguing.

(a) Exciting　　　　　　　(b) Initiating

(c) Frightening　　　　　(d) Boring

(e) Convincing

Ans: a

8. Which of the following are not mentioned in the passage?

(i) Frequencies differs for various species of whales

(ii) Humans could hear all the sound frequencies generated by whales.

(iii) Higher frequencies imply smaller lungs.

(iv) Selection pressure exists among whales.

(a) Both (i) and (ii)　　　(b) Both (i) and (iv)

(c) All except (iii)　　　　(d) All except (ii)

(e) All are mentioned

Ans: c

D.9-16) In the following passage, one or two words have been left out in some of the sentences shown by blank spaces, each of which is indicated by a series of numbers. Find the suitable word from the given options marked as (a) , (b) , (c) , (d) and (e) against each number and fill up the numbered blanks with the appropriate option to make the paragraph meaningfully complete.

A Town Mouse once visited a relative who lived in the country. For lunch the Country Mouse served wheat stalks, roots, and acorns, with a dash of cold water for drink. The Town Mouse ate very ___(9) ___, nibbling a little of this and a little of that, and by her ___(10) ___ making it very plain that she ate the simple food only to be polite. After the meal the friends had a long talk, or rather the Town Mouse talked about her life in the city while the Country Mouse ___(11) ___. They then went to bed in a cozy nest in the ___(12) ___ and slept in quiet and comfort until morning. In her sleep the Country Mouse dreamed she was a Town Mouse with all the luxuries and delights of city life that her friend had described for her. So the next day when the Town Mouse asked the Country Mouse to go home with her to the city, she ___(13) ___ said yes. When they reached the mansion in which the Town Mouse lived, they found on the table in the dining room the leavings of a very fine banquet. There were sweetmeats and jellies, pastries, delicious cheeses, indeed, the most tempting foods that a Mouse can imagine. But just as the Country Mouse was about to nibble a ___(14) ___ bit of pastry, she heard a Cat mew loudly and scratch at the door. In great fear the Mice ___(15) ___ to a hiding place, where they lay quite still for a long time, hardly ___(16) ___ to breathe.

9. ___

(a) fastly
(b) slowly

(c) difficultly
(d) sparingly

(e) roughly

Ans: d

10. ___

(a) manner
(b) thoughts

(c) tone
(d) reality

(e) property

Ans: a

11. ___

(a) neglected
(b) heading

(c) listened
(d) denied

(e) disregarded

Ans: c

12. ___

(a) enclosure
(b) hedgerow

(c) screen
(d) windbreak

(e) quickest

Ans: b

13. ___

(a) clearly
(b) gladly

(c) awkward
(d) cleverly

(e) forcibly

Ans: b

14. ___

(a) large
(b) airy

(c) subtle
(d) dainty

(e) clumsy

Ans: d

15. ___

(a) went
(b) bustled

(c) loafed
(d) entered

(e) scurried

Ans: e

16. ___

(a) difficult
(b) have

(c) daring
(d) fearing

(e) enough

Ans: c

D.17-21) A sentence is shown in four parts marked as (a) , (b) , (c) and (d) in each question. Read the sentences carefully and select the part which is grammatically wrong. If every part in the sentence is grammatically correct then, choose 'No error' (e) as the answer.

17. The number of counterfeit notes, as (A) / the RBI data shows, are (B) / too small to (C) / affect terrorist funding. (D) / No error. (E)

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

(e) No error

Ans: b

18. We directed the police officials (a) / to take action against (b) / such people who try to (c) / disturb peace and tranquillity. (d) / No error. (e)

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

(e) No error

Ans: e

19. The West Bengal government for the first time (a) / has come up with special passes for (b) / tourists to enable them to visit (c) / all Durga Puja pandals in and on the city. (d) / No error. (e)

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

(e) No error

Ans: d

20. Mr. Mahendra also reiterated the pledge to double (a) / the income of farmers by 2022, (b) / adding that his government had resolved (c) / to provide shelter to every poor persons in the country. (d) / No error. (e)

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

(e) No error

Ans: d

21. Spells of rain (a) / throughout yesterday mark (b) / the beginning of (c) / a pleasant weekend for Delhiites. (d) / No error. (e)

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

(e) No error

Ans: b

D.22-25) Each sentence is divided into four parts. Rearrange them into a meaningful sentence. If no rearrangement is required, then choose option e as the answer.

22. Customs duty on crude palm (A) / the government reduced basic (C) / oil to 10%, which will help bring (B) / down the edible oil prices in the retail market (D)

(a) DABC

(b) BCAD

(c) ABDC

(d) CABD

(e) No rearrangement required

Ans: d

23. Scores of deaths in Canada's Vancouver (A) / amid scorching conditions that extended to the US Pacific Northwest (B) / area are likely linked to a grueling heat wave (C) / as the country recorded its highest ever temperature (D)

(a) BCAD   (b) ADBC

(c) ACDB   (d) DCAB

(e) No rearrangement required

Ans: c

24. Causing up to $2. 4 trillion in losses (A) / international tourism arrivals are set to (B) / stagnate this year, except in some Western markets (C) / and the sector is not expected to rebound fully until 2023 (D)

(a) CABD

(b) CBAD

(c) BACD

(d) ADBC

(e) No rearrangement required

Ans: c

25. Of tons of methane and carbon dioxide (A) / the reservoirs release millions (B) / though no fossil fuels are burned (C) / as vegetation decays underwater (D)

(a) CBAD

(b) DCAB

(c) ABDC

(d) BCAD

(e) No rearrangement required

Ans: a

D.26-30) Find the word which is incorrect among the bolded words. If all the words are correct, choose option (e) as the answer.

26. The **scorching** heat **streching** from the US state of Oregon to Canada's Arctic **territories** has been blamed on a high-pressure ridge **trapping** warm air in the region.

(a) scorching

(b) streching

(c) territories

(d) trapping

(e) All are correct

Ans: b

27. Woman in **disttress** can press the SOS button in the Disha app or just **shake** the smart phone and it will sent an **alert** to the police which will **respond** within no time.

(a) disttress   (b) shake

(c) alert   (d) respond

(e) All are correct

Ans: a

28. The U. S. -headquartered platform Facebook said it would **publish** an **interim** report this week with details of content **removed** from its platforms **proactivelly**.

(a) publish   (b) interim

(c) removed   (d) proactivelly

(e) All are correct

Ans: d

29. People **voice** their **concern** about what will happen to them if they get vaccinated and have **doubts** that the government is sending **infirior** quality vaccines to them.

(a) voice   (b) concern

(c) doubts   (d) infirior

(e) All are correct

Ans: d

30. Most of our fears and **apprehensions** stem from a deep impact of something **adverce** or **unfavourable** that we have personally **experienced** or our social circles have experienced.

(a) apprehensions   (b) adverce

(c) unfavourable   (d) experienced

(e) All are correct

Ans: b

31. The speed of a stream is 6 kmph. If it takes 6 hours to go downstream and 12 hours to go upstream, then find the speed of the boat in still water.

(a) 12 kmph

(b) 15 kmph

(c) 18 kmph

(d) 24 kmph

(e) 27 kmph

Ans: c

32. A mixture of wine and water is in the ratio of 8:7. If 75 litres of the mixture are taken out and 15 litres of water is added to the mixture, then the percentage of wine in the mixture becomes 40%. Find the initial quantity of mixture.

(a) 90 litres

(b) 120 litres

(c) 150 litres

(d) 180 litres

(e) 210 litres

Ans: b

Passage

D.33-37) Find the value of 'x' in the given questions.

33. $45\% \text{ of } 300 + 7 \times 16 = x - 148$

(a) 375 (b) 395 (c) 385 (d) 355

(e) 325

Ans: b

34. $256 \times 256 \div 64 \times 1024 = 4^{x-5}$

(a) 13 (b) 15 (c) 17 (d) 10

(e) 18

Ans: b

35. $\sqrt[3]{512} \times \sqrt{64} + 25\% \text{ of } 240 = x$

(a) 144 (b) 134 (c) 104 (d) 124

(e) 154

Ans: d

36. $488 \div 8 \times 12 + 256 - 7 \times 18 = x$

(a) 862 (b) 762 (c) 752 (d) 852

(e) 742

Ans: a

37. $45\% \text{ of } 600 + 33\% \text{ of } 250 = 3x$

(a) 117 (b) 118 (c) 119 (d) 120

(e) None of these

Ans: e

D.38-42) Study the following table carefully to answer the questions.

The following table shows the number of students in five different schools A, B, C, D and E.

School	Number of boys	Percentage of girls
A	384	52
B	672	44
C	450	40
D	992	38
E	216	64

38. What is the ratio of the number of boys in school A to the number of girls in school D?

(a) 12:19 (b) 13:19

(c) 11:19 (d) 17:19

(e) None of these

Ans: a

39. The number of boys in school E is what percentage of the number of girls in school A and school B?

(a) 22. 78% (b) 22. 88%

(c) 23. 68% (d) 23. 78%

(e) 24. 78%

Ans: b

40. What is the average of the number of girls in all the schools together?

(a) 449. 2 (b) 459. 2

(c) 447. 2 (d) 457. 2

(e) 458. 2

Ans: c

41. The total number of girls in school C and school D together is approximately what percent of the total number of boys in school B and school C?

(a) 71%

(b) 84%

(c) 89%

(d) 91%

(e) 81%

Ans: e

42. If there is another school F, in which the number of boys is 11. 11% more than that of in school E, the number of girls in school F is 52% of the total students. The number of girls in school E is what percentage less than the students in school F?

(a) 21. 20%

(b) 22. 20%

(c) 23. 20%

(d) 24. 20%

(e) None of these

Ans: c

43. The average age of 14 boys in a school is 22 years. When three students joined them, the average is increased by 2 years. Again, when another two students are included, the average is further increased by 3 years. Find the average age of the five new students.

(a) 40 years

(b) 41 years

(c) 42 years

(d) 43 years

(e) 44 years

Ans: b

44. Pipe P and Pipe Q can fill a tank together in 12 minutes. Pipe P is 60% more efficient than pipe Q. Find the capacity of the tank, if the pipe Q fills the tank at a speed of 15 litres/minute.

(a) 448 litres

(b) 488 litres

(c) 428 litre

(d) 468 litres

(e) None of these

Ans: d

45. The ratio between the length of train P and Q is 7:11. The speed of train P is 99 kmph and that of train Q is 72 kmph and they are running in the same direction. If train P crosses train Q in 36 seconds, then find the length of train P.

(a) 105 meter

(b) 119 meter

(c) 112 meter

(d) 126 meter

(e) None of these

Ans: a

D.46-50) In the questions, two equations numbered I and II are given. You have to solve both the equations and choose the correct option.

46.

I. $3x^2 - 14x + 15 = 0$

II. $2y^2 - 15y + 22 = 0$

(a) x $<$ y

(b) x $>$ y

(c) x $\geq$ y

(d) x $\leq$ y

(e) x $=$ y or No relation can be established

Ans: e

47. I. $x^2 - 30x + 221 = 0$

II. $3y^2 - 7y - 26 = 0$

(a) x $<$ y

(b) x $>$ y

(c) x $\geq$ y

(d) x $\leq$ y

(e) x $=$ y or No relation can be established

Ans: b

48. I. $x^2 - 37x + 70 = 0$

II. $y^2 - 23y + 76 = 0$

(a) x $<$ y

(b) x $>$ y

(c) x $\geq$ y

(d) x $\leq$ y

(e) x $=$ y or No relation can be established

Ans: e

49. I. $x^2 + 13x - 168 = 0$

II. $y^2 - 35y + 216 = 0$

(a) x $<$ y

(b) x $>$ y

(c) x $\geq$ y

(d) x $\leq$ y

(e) x $=$ y or No relation can be established

Ans: d

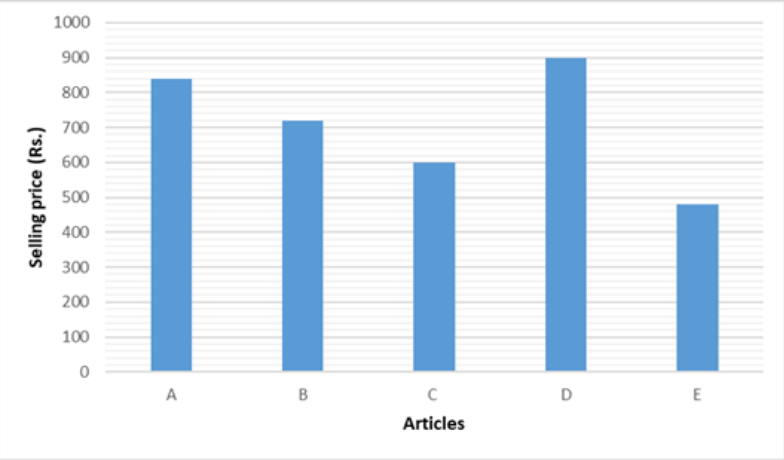50. I. $3x + 4y = 45$

II. $7x + 9y = 103$

(a) x $<$ y

(b) x $>$ y

(c) x $\geq$ y

(d) x $\leq$ y

(e) x $=$ y or No relation can be established

Ans: b

D.51-55) Study the following bar graph carefully to answer the questions.

The following bar shows the selling price of five different articles in a shop.

51. The selling price of article A is what percent of the marked price of article C, if article C is sold at a discount of 25%?

(a) 105%   (b) 100%   (c) 110%   (d) 125%

(e) 120%

Ans: a

52. The profit earned on selling article E is the same as the discount offered on article D, where the cost price of article E is 5/18th of the marked price of article D. Find the discount percentage offered on article D?

(a) 3. 33%   (b) 33. 33%

(c) 16. 67%   (d) 8. 33%

(e) None of these

Ans: c

53. The profit earned on selling the article B is same as the loss that occurred on selling the article C. The marked price of article B 37. 5% more than the cost price of article B. The cost price of article C is what percent of the selling price of article E if cost price of article B is 2/5th more than that of article C.

(a) 83. 33%   (b) 66. 67%

(c) 87. 27%   (d) 90. 99%

(e) None of these

Ans: c

54. The selling price of article B is what percent less than the marked price of the article D if the discount percentage of the article D is 10%.

(a) 10%   (b) 15%   (c) 28%   (d) 25%

(e) 30%

Ans: c

55. The average selling price of all the articles is what percent of the selling price of article D?

(a) 84. 28%   (b) 87. 27%

(c) 94. 28%   (d) 97. 27%

(e) None of these

Ans: a

D.56-60) Find the missing numbers of the following questions.

56. 421, 429, 445, 469, 501, ?

(a) 551   (b) 541   (c) 546   (d) 556

(e) None of these

Ans: b

57. 24, 48, 144, 720, 5040, ?

(a) 54440   (b) 55440

(c) 54540   (d) 54550

(e) 55450

Ans: b

58. 14, 7, 7. 5, 12. 25, 26, ?

(a) 65   (b) 63   (c) 62   (d) 61

(e) None of these

Ans: e

59. 68, 72, 99, 115, ?, 276

(a) 230   (b) 240   (c) 235   (d) 245

(e) None of these

Ans: b

60. 82, ?, 90, 102, 122, 152

(a) 84   (b) 85   (c) 86   (d) 87

(e) 88

Ans: a

61. The area of a square is equal to the area of a rectangle and the breadth of the rectangle is 12 cm more than the side of the square. Find the perimeter of the rectangle if the length of the rectangle is 8 cm less than the side of the square.

(a) 110 cm

(b) 104 cm

(c) 128 cm

(d) 84 cm

(e) 96 cm

Ans: b

62. A and B together can complete the whole work in 13 days. B alone can complete 46. 15% of the work in 18 days. In how many days will A alone complete 66. 66% of the total work?

(a) 12 days

(b) 13 days

(c) 18 days

(d) 21 days

(e) 26 days

Ans: b

63. A sells his goods at 20% profit to B while B sells it to C at a loss of 25%. If C pays Rs. 2700, then find the cost price of A?

(a) Rs. 2400

(b) Rs. 2700

(c) Rs. 3000

(d) Rs. 3600

(e) Rs. 3300

Ans: c

64. When two cards are drawn from a pack of cards without replacement, then what is the probability that both cards are spade cards or face cards.

(a) $\frac{24}{221}$

(b) $\frac{19}{221}$

(c) $\frac{12}{221}$

(d) $\frac{9}{221}$

(e) $\frac{15}{221}$

Ans: a

65. A, B, and C enter a partnership with the investment ratio 3:4:7 in which B and C each invest for only one-quarter and A invest remaining two quarters of the total time period respectively. At the end of 2 years of partnership, A earns a profit of Rs. 1200 more than B. Find the total profit.

(a) Rs. 9600

(b) Rs. 9900

(c) Rs. 10200

(d) Rs. 10500

(e) Rs. 10800

Ans: c

D.66-70) Study the following information carefully and answer the given questions.

Eight persons R, S, T, U, V, W, X, and Y are living on our different floors. Each floor has two different flats, Flat P and Flat Q. Here Flat P is west of Flat Q. Only one person lives in each flat. S lives in an even- numbered floor. There is only one floor between S and X. Y lives east of U. S and U are not living in the same flats. R lives immediately below S but not in the same flat. Y and X are living in the same flat. There is only one floor between T and W. W lives below U.

66. Who among the following persons lives in the second floor of Flat P?

(a) S

(b) T

(c) U

(d) W

(e) R

Ans: d

67. Which floor does T live on?

(a) First floor

(b) Second floor

(c) Third floor

(d) Fourth floor

(e) Can't be determined

Ans: d

68. Who among the following persons live on the first floor?

(a) V, S

(b) U, Y

(c) R, V

(d) T, X

(e) None of these

Ans: c

69. Four of the five are alike in a certain way based on the arrangement hence form the group. Find who among the following person does not belong to the group?

(a) T

(b) U

(c) V

(d) W

(e) R

Ans: c

70. Which of the following statement is true?

I. W and X lives on same floor

II. U lives below T.

III. There is only one floor between X and V.

(a) Only I true

(b) Only II true

(c) Only III true

(d) Only I and II true

(e) None of the above

Ans: b

D.71-75) Study the following information carefully and answer the given questions.

Seven persons K, L, M, N, O, P, and Q have exams on different days of the same weeks starting from Monday to Sunday, but not necessarily in the same order. Less than three persons have exam after Q. Two persons have exams between Q and K. The number of persons who have exam after N and before P are same. Only one person has exams between N and O. L attended the exam before Q. More than three persons have exams between M and N. M attended the exam after Q

71. Which of the following day does K has an exam?

(a) Monday

(b) Tuesday

(c) Thursday

(d) Friday

(e) Saturday

Ans: b

72. How many persons have exams between M and O?

(a) None

(b) One

(c) Two

(d) Three

(e) None of these

Ans: c

73. Who among the following persons has exams on Friday?

(a) K

(b) Q

(c) N

(d) M

(e) O

Ans: b

74. Who among the following person has exams immediately before O?

(a) K

(b) Q

(c) N

(d) M

(e) P

Ans: a

75. Which of the following statement is true?

I. O attends the exam on Wednesday.

II. M attends the exam immediately after K.

III. Two persons have exams between P and L.

(a) Only I follows

(b) Only II follows

(c) Either I or II follows

(d) Neither I nor II follows

(e) Both I and III follow

Ans: e

D.76-80) In each questions below are given some statements followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the given statements.

76. Statements:

Only a few doors are windows

No window is a room

Some room are hot

All hot are cold

Conclusions:

I. All cold can never be window

II. Some doors are hot is a possibility.

(a) Only I follows

(b) Only II follows

(c) Either I or II follows

(d) Neither I nor II follows

(e) Both I and II follow

Ans: e

77. Statements:

All autumns are winters

Some springs are winters

No spring is a summer

Some summers are season

Conclusions:

I. Some winters are not summers

II. All winters are summers

(a) Only I follows

(b) Only II follows

(c) Either I or II follows

(d) Neither I nor II follows

(e) Both I and II follow

Ans: a

78. Statements:

Some questions are answers

Only a few answers are correct

Some correct are wrong.

Conclusions:

I. All answers are correct is a possibility.

II. Some questions are wrong

(a) Only I follows

(b) Only II follows

(c) Either I or II follows

(d) Neither I nor II follows

(e) Both I and II follow

Ans: d

79. Statements:

Some days are weeks

All weeks are months

All months are year

No holiday is a week

Conclusions:

I. Some months are holiday

II. No days is a holiday

(a) Only I follows

(b) Only II follows

(c) Either I or II follows

(d) Neither I nor II follows

(e) Both I and II follow

Ans: d

80. Statements:

All puzzles are floors

Only a few puzzles are box

No box is a flat

All vacant are flats

Conclusions:

I. All puzzles are vacant is a possibility.

II. Some floors are not box

(a) Only I follows

(b) Only II follows

(c) Either I or II follows

(d) Neither I nor II follows

(e) Both I and II follow

Ans: d

D.81-85) Study the following information carefully and answer the questions given below.

Nine persons G, H, I, J, K, L, M, N, and O are sitting around a circular table with equal distance facing the centre, but not necessarily in the same order. Only two persons are sitting between N and G. I is not an immediate neighbour of G and N. J sits second to the left of H, who sits second to the left of O. One person is sitting between N and K, who sits second to the left of I. O is an immediate neighbour of I and K.

81. What is the position of N with respect to M?

(a) Second to the right

(b) Fourth to the right

(c) Third to the left

(d) Second to the left

(e) Cannot be determined

Ans: e

82. How many persons is/are sits between G and N (when counted from right of G) ?

(a) None

(b) One

(c) Two

(d) Three

(e) Four

Ans: c

83. Who among the following sits second to the left of N?

(a) M

(b) I

(c) L

(d) Either M or L

(e) G

Ans: d

84. Who sits third to the right of K?

(a) M

(b) G

(c) O

(d) L

(e) Cannot be determined

Ans: e

85. What is the position of I with respect to G?

(a) Second to the right

(b) Third to the right

(c) Third to the left

(d) Second to the left

(e) None of these

Ans: d

D.86-90) In each question, the relationship between different elements is shown in the statements. The statements are followed by conclusions. Study the conclusions based on the given statements and select the appropriate answer.

86. Statements:

I = U ≥ M = K; Z > G ≥ T = M

Conclusions:

I. I>K

II. T=K

(a) Only I follows

(b) Only II follows

(c) Either I or II follows

(d) Both I and II follow

(e) Neither I nor II follows

Ans: b

87. Statements:

Z≥ F≤X>G=R ; X>D≥Q<K

Conclusions:

I. X>R

II. X≥Q

(a) Only I follows

(b) Only II follows

(c) Either I or II follows

(d) Both I and II follow

(e) Neither I nor II follows

Ans: a

88. Statements:

O≥R=K; K≤M≤L; A=I>M

Conclusions:

I. A≤O

II. L>O

(a) Only conclusion II follows

(b) Only conclusion I follows

(c) Both conclusions I and II follow

(d) Either conclusion I or II follows

(e) Neither conclusion I nor II follows

Ans: e

89. Statements:

X≥T>V≤U<Q; W=X

Conclusions:

I. W>U

II. W=U

(a) Only conclusion II follows

(b) Only conclusion I follows

(c) Both conclusions I and II follow

(d) Either conclusion I or II follows

(e) Neither conclusion I nor II follows

Ans: e

90. Statements:

H≤I=J≤K; L=E<K

Conclusions:

I. I≤K

II. I>K

(a) Only conclusion II follows

(b) Only conclusion I follows

(c) Both conclusions I and II follow

(d) Either conclusion I or II follows

(e) Neither conclusion I nor II follows

Ans: b

D.91-95) Study the following information carefully and answer the questions given below.

Eight persons K, J, I, H, G, F, E, and D are sitting in a linear row. Four of them facing north and four of them facing south, direction but not necessarily in the same order.

Three persons are sitting between K and F, who sits one of the extreme end and both of them are facing the same direction. G sits second to the left of K. Not more than or less than two persons are sitting between E and D who is facing opposite the direction to K. D is an immediate neighbour of G and K. J is not an immediate neighbour of E and does not sits at the extreme end. I sits second to the left of H and not an neighbour of K. J and I are facing same direction as D, who faces north direction.

91. How many persons are sitting between I and H?

(a) None

(b) One

(c) Two

(d) Three

(e) None of these

Ans: b

92. What is the position of I with respect to K?

(a) Third to the left

(b) Second to the right

(c) Fourth to the left

(d) Third to the right

(e) None of these

Ans: d

93. Who among the following sits second to the right of K?

(a) D

(b) I

(c) F

(d) H

(e) E

Ans: e

94. If all are facing north, then how many persons sit to the right of K?

(a) One

(b) Two

(c) Three

(d) Four

(e) None of these

Ans: d

95. Four of the following five are alike in a certain way based on the arrangement and hence form a group. Which of the following does not belong to that group?

(a) E

(b) K

(c) J

(d) G

(e) F

Ans: c

D.96-98) Study the following information carefully and answer the questions given below.

R has two children V and U and one of them is a daughter. U is married to T who is daughter of Q who is the husband of P. T and S are children of P. W and X are daughters of H. P has only daughters.

96. How is S related U?

(a) Grand father

(b) Grand mother

(c) Sister in law

(d) Brother in law

(e) Cannot be determined

Ans: c

97. How is X related to V?

(a) Sister-in-law

(b) Brother-in-law

(c) Niece

(d) Nephew

(e) None of these

Ans: c

98. How many male members are there in the family?

(a) None

(b) One

(c) Two

(d) Three

(e) Data inadequate

Ans: e

99. How many pairs of letters are there in the word 'HEAVEN', which have as many letters between them in the word as in the alphabetical order?

(a) One

(b) Two

(c) Three

(d) Four

(e) None

Ans: e

100. If it is possible to make a meaningful word with the first, sixth, seventh and eleventh letters of the word EVALUATION, which of the following will be the second letter of that word from the left? If no such word can be made, give 'X' as the answer. If more than one such word can be made, give Y as the answer.

(a) X

(b) Y

(c) E

(d) N

(e) None of these

Ans: b