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

Eight persons A, B, C, D, E, F, G and H are going to watch movie in different months i.e. January, April, May, June, July, August, October and December but not necessarily in the same order.

F was going to watch movie in the month which has 30 days. There are three persons watching movie between F and C. H watches the movie just before A, who is watching the movie before B. B watches the movie just before C. H is watching the movie in the month which has maximum number of days but not in January. D is watching the movie in the month which has 30 days. G is watching the movie after D.

1. If E is related to F and H is related to C then, in the same way D is related to which of the following?
   (a) H  (b) F  (c) C  (d) B  (e) A
2. Which of the following statement is true as per the given information?
   (a) D is going to watch movie after F
   (b) Two persons are watching movie between G and B
   (c) B is watching the movie in January
   (d) A is watching the movie in August
   (e) None is true
3. The number of persons watching the movie between D and F is same as between B and ___?
   (a) E  (b) F  (c) H  (d) A  (e) None of these
4. Four of the following five are alike in a certain way and hence they form a group. Which one of the following does not belong to that group?
   (a) H  (b) D  (c) C  (d) B  (e) G
5. How many persons are watching the movie between B and D?
   (a) Five  (b) Three  (c) Four  (d) Two  (e) None

**Direction (6-10):** Study the following information carefully and answer the questions given below:

A certain number of persons are sitting in a row facing in north direction. Four persons are sitting between P and Q. F sits second to the right of Q. One person sits between F and S. S sits at eighth position from one of the extreme ends. D sits third to the right of S. H sits fifth to the left of Q.

6. What is the maximum possible number of persons are sitting in a row?
   (a) Twenty  (b) Twenty-two  (c) Twenty-six  (d) None of these  (e) Twenty-five
7. How many persons are sitting between P and S?
   (a) Three  (b) Five  (c) None  (d) Two  (e) More than five
8. What is the position of D with respect to F?
   (a) Fifth to the left  (b) Sixth to the right  (c) Second to the left  (d) Fifth to the right  (e) None of these
9. How many persons are sitting to the left of H?
   (a) One  (b) Three  (c) Two  (d) Four  (e) None of these
10. If A is sitting exactly in between the P and D, then what is the position of A with respect to S?
    (a) Third to the left  (b) None of these  (c) Third to the right  (d) Second to the left  (e) Second to the right
11. In the word ‘CHLORINE’, how many pairs of the letters have the same number of letters between them in the word as in alphabetical order?
   (a) Four     (b) Two     (c) One     (d) Three     (e) More than four

Direction (12-15): In each of the 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 follows from the given statements disregarding commonly known facts.
   (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.

12. Statements: Only a few home is picnic. No picnic is mystery. All mystery is real.
   Conclusions: I. Some mystery are not picnic.
               II. All home being picnic is a possibility.

13. Statements: Only a few strong is tough. Only a few tough is dark.
   Conclusions: I. Some strong is not dark.
               II. No tough is strong.

14. Statements: No network is dull. Only a few dull is fast. All fast is memory.
   Conclusions: I. Some memory are definitely not network.
               II. Some dull are not network.

15. Statements: All tennis is football. All football is basketball. No basketball is cricket.
   Conclusions: I. No football is cricket.
               II. All tennis is basketball.

Direction (16-20): Study the following information carefully and answer the questions given below:

Twelve persons are sitting in the two parallel rows containing six persons in each row in such a way that there is an equal distance between adjacent persons. In the first row, A, B, C, D, E and F are seated and all of them are facing north. In the second row, P, Q, R, S, T and U are seated and all of them are facing south. Therefore, in the given seating arrangement, each member seated in a row faces another member of the other row.

E sits 4\textsuperscript{th} to the right of B. Q faces to E. The number of persons sit to the left of Q is same as sit to the right of S. P sits immediate to the left of D. A sits to the left of C and to the right of F. P faces the one who is an immediate neighbor of A. U is the only neighbor of Q. R sits to the right of T.

16. Four of the following five are alike in a certain way and hence they form a group. Which one of the following does not belong to that group?
   (a) R     (b) P     (c) U     (d) C     (e) B

17. Who among the following faces to F?
   (a) P     (b) U     (c) S     (d) R     (e) Either (a) or (c)

18. What is the position of F with respect to B?
   (a) Immediate to the left
   (b) 2\textsuperscript{nd} to the left
   (c) 3\textsuperscript{rd} to the right
   (d) 4\textsuperscript{th} to the left
   (e) Immediate to the right

19. Which of the following is true as per the given information?
   (a) S sits to the immediate right of P
   (b) U faces to A
   (c) F sits at the extreme end
   (d) Both (b) and (c) true
   (e) All are true

20. Who among the following sits 3\textsuperscript{rd} to the right T?
   (a) U     (b) None of these     (c) S     (d) P     (e) R

Direction (21-25): Study the following information carefully and answer the questions given below:

Eight persons i.e. F, J, K, M, N, P, S and V are sitting around a square table. Four of them are sitting at the corners and remaining are sitting at the middle side of the table. The persons sitting at the corners faces away from the center and the persons sitting at the middle sides of the table faces towards the center. All the information is not necessarily in the same order.

F sits at the middle side of the table. N sits at the immediate left of V. Two persons sit between F and J. V sits at the immediate right of J. Three persons sit between S and N. M is an immediate neighbor of S. M is not an immediate neighbor of J. P faces inside.

21. How many persons are sitting between F and J when counting from the left of F?
   (a) One     (b) Two     (c) Three     (d) Four     (e) More than four

22. Four of the following five are alike in a certain way and hence form a group, which of the following does not belong to the group?
   (a) S     (b) F     (c) J     (d) K     (e) N
23. Which of the following statement is true?
(a) P sits second to the left of V
(b) N is an immediate neighbor of S
(c) Two persons sit between P and V
(d) M sits opposite to N
(e) J sits opposite to K.

24. Who among the following is sitting second to the left of M?
(a) P          (b) V          (c) J
(d) F          (e) None of these

25. Who among the following is sitting opposite to P?
(a) V          (b) J          (c) F
(d) M          (e) None of these

Direction (26-28): Study the following information carefully and answer the questions given below:

There are seven members in a family of three generation.
A is mother of P. P is brother of G. K is married to G. S is aunt of M. K is child of L. S is sister of K.

26. If L is married to J, then how J is related to G?
(a) Grand daughter
(b) Grand son
(c) Son-in-law
(d) Daughter-in-law
(e) Can't be determined

27. If A is married to R, then how R is related to M?
(a) Grand father  (b) Brother-in-law  (c) Uncle
(d) None of these  (e) Can't be determined

28. How S is related to G?
(a) Sister       (b) Sister-in-law  (c) Aunt
(d) Mother-in-law (e) None of these

29. If it is possible to make only one meaningful word with the 2nd, 5th, 8th and 9th letters of the word 'TRANSLATION' which would be the second letter of the word from the left? If more than one such word can be formed give 'Y' as the answer. If no such word can be formed, give 'Z' as your answer.
(a) Y          (b) S          (c) T
(d) Z          (e) R

30. If all the numbers are remove from the series, then which of the following element is 10th from the left end?
(a) R          (b) F          (c) M
(d) B          (e) U

31. How many alphabets according to the English dictionary are between the elements which is 7th from the left end and 9th from the right end?
(a) Five       (b) Three       (c) Seven
(d) Ten        (e) Eight

32. Which of the following element is 3rd from the right of the element which is 11th from the left end?
(a) M          (b) I           (c) A
(d) 6          (e) R

33. How many such numbers are there in the above arrangement, each of which is immediately preceded by a consonant and also immediately followed by a consonant?
(a) Three      (b) One         (c) Two
(d) Four       (e) None of these

34. If in the number 485794362, 1 is added to each of the digit which is placed at even position and 1 is subtracted from each of the digit which is placed at odd position then how many digits are repeating in the number thus formed?
(a) Only 5     (b) Both 1 & 2   (c) Only 8
(d) Both 1 & 7  (e) None of these

35. Find the odd one out?
(a) BEH     (b) JMP     (c) TWZ
(d) CFI     (e) KOP

Direction (36-45): Find the value of (?) in the following questions

36. \[\sqrt{124+7} + 169 = 18\]
(a) 34      (b) 31    (c) 33
(d) 35      (e) 32

37. \[136 \div 2^2 \times ? = 17\% \text{ of } 500 \div 10\]
(a) 0.75    (b) 1.33  (c) 0.25
(d) 1.66    (e) 0.5

38. \[115 \div 5 + 12 \times 6 = ? + 64 \div 4 - 35\]
(a) 114    (b) 118    (c) 108
(d) 116    (e) 111

39. \[41\% \text{ of } 600 - 250 = ? - 77\% \text{ of } 900\]
(a) 693    (b) 675    (c) 684
(d) 679    (e) 689
40. \( \frac{360}{7} = 73 + 3^3 \)
   (a) 3.4   (b) 4.3   (c) 3.1
   (d) 3.6   (e) 3.9

41. \( \frac{1}{2} - \frac{3}{5} + \frac{4}{3} = ? + \frac{5}{6} \)
   (a) \( \frac{11}{15} \)   (b) \( \frac{5}{15} \)   (c) \( \frac{11}{12} \)
   (d) \( \frac{2}{12} \)   (e) \( \frac{4}{15} \)

42. \( 65 \times 3 \div 13 + 67 - ?^2 = 81 + 9 \times 2 \)
   (a) 9   (b) 5   (c) 12
   (d) 8   (e) 14

43. \((2744)^{1/3} + (18)^2 - 121 = ? - 69 \times 5\)
   (a) 658   (b) 568   (c) 666
   (d) 656   (e) 562

44. \(1111 \div 11 + 2002 \div 26 + 750 \div 25 = ?\)
   (a) 204   (b) 212   (c) 208
   (d) 206   (e) 210

45. \(\frac{5}{11} \times 121 + 1 \frac{4}{9} \times 288 = 141 + ?\)
   (a) 333   (b) 327   (c) 335
   (d) 330   (e) 329

Directions (46 – 50): Given bar graph shows the number of residents residing in 4 societies in years 2008, 2018. Read the data carefully and answer the questions carefully.

46. What is average of residents residing in society A in 2008, B in 2018, C in 2018 & D in 2008?
   (a) 355   (b) 360   (c) 365
   (d) 370   (e) 350

47. Residents residing in society B in 2008 are what percent more/less than average of residents residing in society D in 2008 & 2018?
   (a) \( 5 \frac{6}{11} \) %   (b) \( 3 \frac{6}{11} \) %   (c) \( 6 \frac{6}{11} \) %
   (d) \( 7 \frac{6}{11} \) %   (e) \( 4 \frac{6}{11} \) %

48. Which society shows maximum percentage increase in no. of residents from year 2008 to 2018?
   (a) Both A & C   (b) Both A & D   (c) Both C & D
   (d) Both A & B   (e) None of these

49. What is ratio of all residents in all societies in 2008 to that of in 2018?
   (a) 142 : 157   (b) 157 : 142   (c) 162 : 137
   (d) 137 : 162   (e) 97 : 114

50. What is difference between number of residents residing in society A & B in 2018 together and that of in society C & D together in 2008?
   (a) 30   (b) 24   (c) 20
   (d) 28   (e) 26

51. A shopkeeper sells two pens, he sold 1 pen at profit and other pen at loss. SP of each of the two pens is Rs.300 and profit percentage on 1 pen is equal to loss percentage on other. If overall loss of shopkeeper is 6.25%, then find difference between cost price of both pen.
   (a) Rs.350   (b) Rs.100   (c) Rs.240
   (d) Rs.160   (e) Rs.300

52. A man received Rs.3456 when he invested Rs.P at 12% p.a. at SI for 3 years. If he invested Rs.\( (P + 4400) \) at 15% p.a. at CI compounding annually for 2 years, then find the interest received by him.
   (a) Rs.4515   (b) Rs.4960   (c) Rs.4725
   (d) Rs.4185   (e) Rs.4345
53. Time taken by a boat to cover 162 km each in downstream and in upstream is 14 hours and 24 minutes. If speed of stream is 6 km/hr., then find the time taken by boat to cover 240 km in upstream.

(a) 7$$\frac{1}{3}$$ hours  
(b) 18$$\frac{2}{3}$$ hours  
(c) 9$$\frac{2}{3}$$ hours  
(d) 16$$\frac{2}{3}$$ hours  
(e) 13$$\frac{1}{3}$$ hours

54. C is 100% more efficient than B. A alone can complete a piece of work in 9 days and B & C together can complete the same work in 2$$\frac{2}{3}$$ days. Find what portion of work will be completed, if A & B works together for 4 days.

(a) $$\frac{13}{18}$$  
(b) $$\frac{8}{9}$$  
(c) $$\frac{5}{6}$$  
(d) $$\frac{2}{3}$$  
(e) $$\frac{17}{18}$$

55. Ratio of age of P 2 years ago to age of R 2 years hence is 1 : 2 and Q's present age is 25% more than P's present age. If average of present age of P & R is 39 years, then find difference between P’s age 5 years hence and R’s present age.

(a) 12 years  
(b) 17 years  
(c) 21 years  
(d) 15 years  
(e) 14 years

Directions (56-60): Solve the following quadratic equation and mark the answer as per instructions.

56. I. $$x^2 - 2x - 143 = 0$$  
II. $$y^2 - 169 = 0$$

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

57. I. $$x^2 - 7x - 18 = 0$$  
II. $$y^2 - 19y + 90 = 0$$

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

58. I. $$2x^2 + 5x + 3 = 0$$  
II. $$y^2 + 4y - 12 = 0$$

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

59. I. $$9x + 3y = 15$$  
II. $$4x + 5y = 14$$

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

60. I. $$2x^2 - x - 1 = 0$$  
II. $$3y^2 - 5y + 2 = 0$$

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

Directions (61-65): Find the wrong number in the following number series.

61. 2, 3, 6, 15, 156.5, 630
(a) 2  
(b) 15  
(c) 3  
(d) 156.5  
(e) 630

62. 36, 20, 12, 8, 6, 5.5, 4.5
(a) 8  
(b) 36  
(c) 5.5  
(d) 4.5  
(e) 6

63. 1, 3, 9, 31, 128, 651, 3913
(a) 31  
(b) 3  
(c) 128  
(d) 3913  
(e) 1

64. 2, 3, 10, 40, 172, 885, 5346
(a) 40  
(b) 885  
(c) 172  
(d) 3  
(e) 10

65. 5, 8, 16, 26, 50, 98, 194
(a) 5  
(b) 194  
(c) 8  
(d) 16  
(e) 98

66. A rectangular path of width 3m is surrounding the garden whose length is 3m more than its width. If cost of painting the path at rate of 0.5Rs/m² is Rs 273 then find the area of garden.

(a) 1525m²  
(b) 1804 m²  
(c) 1776 m²  
(d) 1906 m²  
(e) 1664 m²

67. In a class percentage of students who passed the exam is 60% and number of boys & girls who passed the exam is same. If boys who failed the exam are 200% more than girls who failed in exam then find the percentage of girls who failed out of total students.

(a) 9%  
(b) 13%  
(c) 10%  
(d) 12%  
(e) 15%
Animals of all sorts live together in various ecosystems. Within these natural communities, the animals eat specific diets that connect them together in a food chain. The three diets of animals include creatures that eat only plants, those that eat only meat, and animals that eat both plants and meat. Animals that eat plants exclusively are herbivores, and animals that eat only meat are carnivores. When animals eat both plants and meat, they are called omnivores. The balance of an ecosystem depends on the presence of every type of animal. If one type of animal becomes too numerous or scarce, the entire balance of the ecosystem will change.

Carnivores will feed on herbivores, omnivores, and other carnivores in an ecosystem. A natural community depends on the presence of carnivores to control the populations of other animals. Large carnivores include wolves and mountain lions. A large carnivore might hunt down large herbivores such as elk and deer. Medium-sized carnivores include hawks and snakes, and these animals typically feed on rodents, birds, eggs, frogs, and insects. Examples of small carnivores include some smaller birds and toads. These carnivores may eat insects and worms. Carnivorous animals have strong jaws and sharp teeth to enable them to tear and rip prey. These animals often have long, sharp claws that they also use to tear prey. Carnivores depend on sufficient prey in the food chain to give them the food they need. If the herbivore population or the population of other carnivores declines in an ecosystem, carnivores may not survive.

With a diet comprised of only plants, herbivores can be surprisingly large animals. Examples of large herbivores include cows, elk, and buffalo. These animals eat grass, tree bark, aquatic vegetation, and shrubby growth. Herbivores can also be medium-sized animals such as sheep and goats, which eat shrubby vegetation and grasses. Small herbivores include rabbits, chipmunks, squirrels, and mice. These animals eat grass, shrubs, seeds, and nuts. An ecosystem must provide ________ (1) plants to sustain herbivores, and many of them spend the majority of their lives eating to stay alive. If plant availability declines, herbivores may not have enough to eat. This could cause a decline in herbivore numbers, which would also impact carnivores. Herbivores usually have special biological systems to digest a variety of different plants. Their teeth also have special designs that enable them to rip off the plants and then grind them up with flat molars. Omnivores have an advantage in an ecosystem because their diet is the most diverse. These animals can vary their diet depending on the food that is most plentiful, sometimes eating plants and other times eating meat. Herbivores have different digestive systems than omnivores, so omnivores usually cannot eat all of the plants that an herbivore can. Generally, omnivores eat fruits and vegetables freely, but they can’t eat grasses and some grains due to digestive limitations. Omnivores will also hunt both carnivores and herbivores for meat, including small mammals, reptiles, and insects. Large omnivores include bears and humans. Examples of medium-sized omnivores include raccoons and pigs. Small omnivores include some fish and insects such as flies. Omnivore teeth often resemble carnivore teeth because of the need for tearing meat. Omnivores also have flat molars for grinding up food.

71. Why the balance of the ecosystem depends on each kind of animal?
(a) Scarcity or abundant of a single kind can cause disturbance in the ecosystem balance.
(b) Carnivores and Omnivorous should be less in number than herbivorous.
(c) Specific diets of each kind of animals bring food chain in sync.
(d) Both (b) and (c)
(e) None of these

68. A man invested Rs.X at 15% p.a. at SI for 4 years and Rs. (1.35X) at 18% p.a. at SI for 3 years. If total interest received by man is Rs.15948, then find value of Rs. (3.12X).
   (a) Rs.50544  (b) Rs.42764  (c) Rs.32580
   (d) Rs.47372  (e) Rs.37440

69. A man covers $\frac{5}{4}$% distance via bus at 80 km/hr, 25% of the distance via car at 120 km/hr, 30% distance via bicycle at 32 km/hr, and remaining distance via train at 62 km/hr. If total distance covered by man is 640 km, then find the total time taken man during the entire journey.
   (a) $\frac{65}{6}$ hours  (b) 13 hours  (c) $\frac{44}{3}$ hours
   (d) $\frac{31}{2}$ hours  (e) $\frac{71}{6}$ hours

70. Average weight of a class is 60 kg and average weight of boys in the class is 80 kg. Ratio of boys to girls in the class is 5 : 4. If there are 72 students in the class, then find the average weight of girls in the class.
   (a) 54 kg  (b) 42 kg  (c) 35 kg
   (d) 45 kg  (e) 38 kg
72. How natural community depends upon Carnivores?
   (a) They feed on grass eating, plant and meat eating animals.
   (b) They feed on other carnivores.
   (c) They control populations of other animals.
   (d) All (a), (b), and (c)
   (e) None of these

73. What is the threat to survival of carnivores?
   (a) Insufficient number of preys in the food chain.
   (b) Decline in population of herbivores and other carnivores
   (c) Both (a) and (b)
   (d) Only (b)
   (e) None of these

74. Which of the following statement(s) is/are true about herbivores?
   (a) Their diet include only vegetation
   (b) Their survival depends upon abundant plants
   (c) A major part of herbivores' life is spent on eating
   (d) They have a digestive system suitable to digest diverse kind of plants
   (e) All of the above

75. Why Omnivores are said to have an advantage?
   (a) Diverse diet
   (b) Both (a) and (c)
   (c) Diet depends upon food which is available in plentiful amount.
   (d) Only (a)
   (e) Only (c)

76. Which is the following can fill the blank (1) as given in the passage, to make the sentence grammatically and contextually correct?
   (a) Largely
   (b) Abundant
   (c) Diversity
   (d) Quite
   (e) None of these.

77. Which of the following words is most similar in meaning as BALANCE, highlighted in the given passage?
   (a) Affecting
   (b) Poignant
   (c) Equilibrium
   (d) Considerate
   (e) None of these.

78. Which of the following words is most opposite in meaning with SUFFICIENT, highlighted in the given passage?
   (a) Inadequate
   (b) Ample
   (c) Plenty
   (d) Enough
   (e) None of these.

Directions (79-84): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five options are given. Find out the appropriate word which fits the blank appropriately to make a grammatically and contextually correct sentence.

Two decades have passed since the mid-day meal became a part of the daily routine in government schools nationwide. In this long passage of time, procedures have __________ (79) but accidents continue to occur. Funds from the Centre flow smoothly though procurement of food items faces hurdles of different kinds. The latest _______ (80) in mid-meal stories concerns milk. Government norms entitle every child to receive 150 ml of milk as part of the mid-day meal. However, a video revealed recently how one litre of milk was mixed in a bucketful of water so that it would _______ (81) for the more than 80 children present that day in a school in rural Uttar Pradesh (U.P.). This was somewhat similar to the one reported from U.P. a couple of months ago. In the earlier incident, a video showed plain chapatis being served with salt. The two videos made it to the national media; they also proved useful for the officers who _______ (82) the mid-day meal scheme since they also depend on unauthorised videographers to learn about the reality in schools. Each such revelation leads to the same _______ (83) official statement: punish the guilty, locate the video-maker and deal with him/her. In the latest mid-meal story narrated above, authorities in U.P. have reportedly done the _______ (84) needful, i.e. they have fired the apparent culprit who is a para-teacher.

79. (a) Balances (b) Stabilized (c) Persistent
   (d) Stabilizing (e) None of these.
80. (a) Stained (b) Retiate (c) Accusations
   (d) Blunder (e) None of these.
81. (a) Suffice (b) Assent (c) Patriotism
   (d) Benefit (e) None of these.
82. (a) React (b) Negate (c) Supervise
   (d) Unify (e) None of these.
83. (a) Amalgamate (b) Reflexive (c) Applicable
   (d) Unlikely (e) None of these.
84. (a) Permit (b) Annihilate (c) Customary
   (d) Stride (e) None of these.

Directions (85-89): Each question below has one blank, which is indicating that something has been omitted. Choose the most suitable option indicating the words that can be used to fill up the blank in the sentence to make it meaningfully complete.

85. Maharashtra has been ___________ into a new party system over the past few years, with the BJP trying hard to replace the Congress as the dominant party in the State.
   (i) Investigated
   (ii) Transitioning
   (iii) Framing
   (a) Only (i)
   (b) Only (ii)
   (c) Both (ii) and (iii)
   (d) Both (i) and (ii)
   (e) None of these.
86. The theme song of Downton Abbey along with a panoramic shot of the imposing monarchic structure is enough to ______ memories.
   (i) Evoke
   (ii) Recall
   (iii) Sent
   (a) Only (i)
   (b) Only (ii)
   (c) Both (ii) and (iii)
   (d) Both (i) and (ii)
   (e) None of these.

87. With tomato and onion prices continuing to soar, the Centre is considering a ________ to increase cultivation of these staple vegetables in the north Indian region.
   (i) Proposal
   (ii) Role
   (iii) Novel
   (a) Only (i)
   (b) Only (ii)
   (c) Both (ii) and (iii)
   (d) Both (i) and (ii)
   (e) None of these.

88. The Railways will speed up trains to reduce running time and maximise ________ of infrastructure across its network.
   (i) Collecting
   (ii) Effectiveness
   (iii) Utilisation
   (a) Only (i)
   (b) Only (ii)
   (c) Both (ii) and (iii)
   (d) Both (i) and (ii)
   (e) None of these.

89. There could be more interest rate ________ by the RBI as some of the members of the monetary policy committee have observed that growth is yet to bottom out
   (i) Increment
   (ii) Cuts
   (iii) Growthhs
   (a) Only (i)
   (b) Only (ii)
   (c) Both (ii) and (iii)
   (d) Both (i) and (ii)
   (e) None of these.

Directions (90-94): In each of the questions given below four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that replace each other. If the sentence is correct as it then select option (e) as your choice.

90. Today, thermal accounts (A) capacity generation (B) for about two-thirds the installed (C) generation capacity (D) in the country.
   (a) A-B
   (b) A-C
   (c) B-D
   (d) C-D
   (e) The sentence is correct

91. The IMF followed (A) the World Bank in reducing (B) its forecast for India’s economic (C) growth in the current financial (D) year.
   (a) A-B
   (b) A-C
   (c) B-D
   (d) C-D
   (e) The sentence is correct

92. In pursuit (A) of novel ways to draw caught (B) to the Big Prize, the Academy (C) seems to have been attention (D) on the wrong foot again.
   (a) A-B
   (b) A-C
   (c) B-D
   (d) C-B
   (e) The sentence is correct

93. With power (A) growth, the demand (B) for economic (C) in India is only going to increase (D) further.
   (a) A-B
   (b) A-C
   (c) B-D
   (d) C-D
   (e) The sentence is correct

94. The Air Quality Index of Delhi worsened (A) slightly and expected (B) in the “poor” category and is stayed (C) to further deteriorate (D) from the last week of the month.
   (a) A-B
   (b) A-C
   (c) B-C
   (d) C-D
   (e) The sentence is correct

Direction (95-100): The following questions consist of a sentence. Four of the words of the sentences are marked in bold, which may or may not be correctly spelled. Option corresponding to misspelt word is your answer. If there is no misspelled word in the sentence then choose (d), i.e., ‘All are correct’ as your answer.

95. Education, for most of us, is a necessary public good central to the task of nation building and, like fresh air, is neccessary (A) to make our communities come alive.
   (a) Education
   (b) Building
   (c) Neccessary
   (d) Communities
   (e) All are correct

96. The Budget’s provisons (A) for collecting more in taxes from the incomes (B) of the super-rich were aimed at redistributing (C) wealth to bring about more equitable (D) development.
   (a) Provisons
   (b) Incomes
   (c) Redistributing
   (d) Equitable
   (e) All are correct
97. Ideas rejected more than two decades ago during the liberalisation phase are back in circulation.
   (a) Rejected
   (b) Decades
   (c) Liberalisation
   (d) Circulation
   (e) All are correct

98. The proposal to establish a National Research Foundation, with an “overarching goal to enable a culture of research to permeate through our universities” needs to be applauded and widely supported.
   (a) Establish
   (b) Overarching
   (c) Permeate
   (d) Applauded
   (e) All are correct

99. Policymaking has three essential ingredients: technical elements, administrative inputs and political goals and packaging.
   (a) Policymaking
   (b) Essential
   (c) Administrative
   (d) Packaging
   (e) All are correct

100. The Central Bureau of Investigation has set up an Online Child Sexual Abuse and Exploitation Prevention/Investigation Unit.
     (a) Bureau
     (b) Abuse
     (c) Exploitation
     (d) Investigation
     (e) All are correct
Solutions

REASONING ABILITY

Direction (1-5):

<table>
<thead>
<tr>
<th>Month</th>
<th>Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>E</td>
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<tr>
<td>April</td>
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<td>May</td>
<td>G</td>
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<td>June</td>
<td>F</td>
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<tr>
<td>July</td>
<td>H</td>
</tr>
<tr>
<td>August</td>
<td>A</td>
</tr>
<tr>
<td>October</td>
<td>B</td>
</tr>
<tr>
<td>December</td>
<td>C</td>
</tr>
</tbody>
</table>

1. (a); 2. (d); 3. (c);
4. (b); 5. (c);

Direction (6-10):

6. (a); 7. (c); 8. (d);
9. (b); 10. (e);

11. (c);

Direction (16-20):

16. (b); 17. (c); 18. (e);
19. (a); 20. (e);

Direction (12-15):

12. (a);
13. (d);
14. (e);
15. (e);

Direction (16-20):

16. (b); 17. (c); 18. (e);
19. (a); 20. (e);

Direction (21-25):

21. (d); 22. (b); 23. (e);
24. (a); 25. (c);

Direction (26-28):

26. (e); 27. (a); 28. (b);

29. (c); “STIR”

Direction (30-33):

30. (b); 31. (d); 32. (d);
33. (c); 34. (c);
35. (e);
36. (b); 293 + ? = 324
   ? = 31
37. (c); 34 × ? = \( \frac{17}{100} \times 500 \times \frac{1}{10} \)
   ? = \( \frac{8.5}{34} \) = 0.25
38. (a); 23 + 72 = ? + 16 - 35
   ? = 114
39. (e); 246 - 250 = ? - 693
   ? = 689
40. (d); \( \frac{360}{7} \) = 73 + 27
   ? = 3.6
41. (a); \( \frac{1}{2} - \frac{3}{5} + \frac{14}{6} = ? + \frac{5}{6} \)
   \( \frac{15-18+14}{30} - \frac{5}{6} = ? \)
   ? = \( \frac{112 - 75}{15} \) = \( \frac{37}{15} \)
42. (d); 15 + 67 - ?² = 18
   ? = 8
43. (e); 14 + 324 - 121 = ? - 345
   ? = 562
44. (c); 101 + 77 + 30 = ?
   ? = 208
45. (d); 55 + 416 = 141 + ?
   ? = 330
46. (b); required average = \( \frac{250+370+420+400}{4} \) = 360
47. (e); average of total residents in society D in 2008 & 2018 = \( \frac{400+480}{2} \) = 440
   Required % = \( \frac{440-420}{440} \times 100 = 4 \frac{6}{11} \) %
48. (a); society A = \( \frac{350-250}{250} \times 100 = 40 \) %
   Society B = \( \frac{370-420}{250} \times 100 = 11.9 \) % (decrease)
   Society C = \( \frac{420-300}{420} \times 100 = 40 \) %
   Society D = \( \frac{480-400}{400} \times 100 = 20 \) %
   Maximum increase in society A & C
49. (d); all residents in 2008 = 250 + 420 + 300 + 400 = 1370
   Total residents in 2018 = 350 + 370 + 420 + 480 = 1620
   Required ratio = 1370 : 1620 = 137 : 162
50. (c); required difference = (350 + 370) - (300 + 400) = 20
51. (d); Cost price of both pens = \( \frac{300 \times 2 \times 100}{93.75} \)
   = Rs.640
52. (a); ATQ,
   \( \frac{P \times 12 \times 3}{100} = 3456 \)
   P = Rs. 9600
   Required amount = \( \left( \left( 9600 + 4400 \right) \left( 1 + \frac{15}{100} \right)^2 - \left( 9600 + 4400 \right) \right) \)
   = 18515 - 14000
   = Rs.4515
53. (e); Let speed of boat in still water be x km/hr.
   ATQ,
   \( \frac{162}{x+6} + \frac{162}{x-6} = \frac{72}{5} \)
   x = 24 kmph
   Required time = \( \frac{240}{24-6} \) = 13 \frac{1}{3} hours
54. (e); Let efficiency of B be x units/day
   So, efficiency of C = \( \frac{x \times 200}{100} \) = 2x units/day
   Now, total work = \( (x + 2x) \times \frac{8}{3} = 8x \) units
   Hence, efficiency of A = \( \frac{8x}{9} \) units/day
   Work completed by A & B together in 4 days = \( \left( \frac{8x}{9} + x \right) \times 4 = \frac{68x}{9} \) units
   Required portion = \( \frac{68x}{9} \times \frac{17}{18} \)
55. (b); Let present age of P be 4x years.
   So, present age of Q = \( \frac{125}{100} \times 4x \) = 5x years
   Now, present age of R = \( (4x - 2) \times 2 - 2 \) = (8x - 6) years
   ATQ,
   \( \frac{4x+8x-6}{2} = 39 \)
   x = 7
   Required difference = \( (8 \times 7 - 6) - (4 \times 7 + 5) \)
   = 50 - 33 = 17 years
56. (e): I. \(x^2 - 13x + 11x - 143 = 0\)
\((x - 13)(x+11) = 0\)
x = -11, 13

II. \(y^2 = 169\)
y = ± 13

clearly, no relation can be established

57. (a): I. \(x^2 - 9x + 2x - 18 = 0\)
\((x - 9)(x + 2) = 0\)
x = -9, 2

II. \(y^2 - 10y - 9y + 90 = 0\)
\((y - 10)(y - 9) = 0\)
y = 9, 10

clearly, no relation can be established

58. (c): I. \(2x^2 + 3x + 2x + 3 = 0\)
\((x + 1)(2x + 3) = 0\)
x = -1, -1.5

II. \(y^2 + 6y - 2y - 12 = 0\)
\((y - 2)(y + 6) = 0\)
y = 2, -6

clearly, no relation can be established

59. (d): (II) \(x = 9\) – (I) \(x = 4\)

On solving,
x = 1, y = 2

clearly, x < y

60. (c): I. \(2x^2 - 2x + x - 1 = 0\)
\((2x + 1)(x - 1) = 0\)
x = -1/2, 1

II. \(3y^2 - 3y - 2y + 2 = 0\)
\((3y - 2)(y - 1) = 0\)
y = 2/3, 1

clearly, no relation

61. (d): Wrong number = 156.5

Pattern of series-

<table>
<thead>
<tr>
<th>2</th>
<th>3</th>
<th>6</th>
<th>15</th>
<th>45</th>
<th>157.5</th>
<th>630</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1.5</td>
<td>x2</td>
<td>x2.5</td>
<td>x3</td>
<td>x3.5</td>
<td>x4</td>
<td></td>
</tr>
</tbody>
</table>

So, there should be 157.5 in place of 156.5.

62. (c): Wrong number = 5.5

Pattern of series-

<table>
<thead>
<tr>
<th>36</th>
<th>20</th>
<th>12</th>
<th>8</th>
<th>6</th>
<th>5</th>
<th>4.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>-16</td>
<td>-8</td>
<td>-4</td>
<td>2</td>
<td>-1</td>
<td>-0.5</td>
<td></td>
</tr>
<tr>
<td>+2</td>
<td>+2</td>
<td>+2</td>
<td>+2</td>
<td>+2</td>
<td>+2</td>
<td></td>
</tr>
</tbody>
</table>

So, there should be 5 in place of 5.5

63. (e): Wrong number = 128

Pattern of series-

<table>
<thead>
<tr>
<th>1</th>
<th>3</th>
<th>9</th>
<th>31</th>
<th>129</th>
<th>651</th>
<th>3913</th>
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<tbody>
<tr>
<td>x1+2</td>
<td>x2+3</td>
<td>x3+4</td>
<td>x4+5</td>
<td>x5+6</td>
<td>x6+7</td>
<td></td>
</tr>
</tbody>
</table>

So, there should be 129 in place of 128

64. (a): Wrong number = 40

Pattern of series-

<table>
<thead>
<tr>
<th>2</th>
<th>3</th>
<th>10</th>
<th>39</th>
<th>172</th>
<th>885</th>
<th>5346</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1+1^2</td>
<td>x2+2^2</td>
<td>x3+3^2</td>
<td>x4+4^2</td>
<td>x5+5^2</td>
<td>x6+6^2</td>
<td></td>
</tr>
</tbody>
</table>

So, there should be 39 in place of 40.

65. (d): Wrong number = 16

Pattern of series-

<table>
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<tr>
<th>5</th>
<th>8</th>
<th>14</th>
<th>26</th>
<th>50</th>
<th>98</th>
<th>194</th>
</tr>
</thead>
<tbody>
<tr>
<td>x2-2</td>
<td>x2-2</td>
<td>x2-2</td>
<td>x2-2</td>
<td>x2-2</td>
<td>x2-2</td>
<td></td>
</tr>
</tbody>
</table>

So, there should be 14 in place of 16.

66. (b): Let width of garden = \(x\) m

So length of garden = \((x+3)\) m

According to question

\((x + 6)(x + 9) - x(x + 3) = \frac{273}{0.5}\)

\(x^2 + 15x + 54 - x^2 - 3x = 546\)

12x + 54 = 546

\(x = 41\)

Area of garden = \(41 \times 44\)

= 1804 \text{ m}^2

67. (c): Let total students be 100x

Then passed students be 60x

Passed boys & girls are 30x each.

Let failed girls = \(y\)

Now

\(y + 3y = 40x\)

\(4y = 40x\)

\(y = 10x\)

Required percentage = 10%

68. (e): ATQ,

\[ \frac{x \times 15 \times 4}{100} + \frac{1.35x \times 18 \times 3}{100} = 15948 \]

\(0.60x + 0.729x = 15948\)

\(X = 12000\)

Required value = \(3.12 \times 12000\)

= Rs.37440

69. (e): Distance covered by bus = \(\frac{25}{400} \times 640\)

= 40 km

Distance covered by car = \(\frac{25}{100} \times 640\)

= 160 km

Distance covered by bicycle

\(= \frac{30}{100} \times 640 = 192\) km

And distance covered by train

\(= (640 - (40 + 160 + 192)) = 248\) km

Required time = \(\frac{40}{80} + \frac{160}{120} + \frac{192}{32} + \frac{248}{62} = \frac{71}{6}\) hours

70. (c): Number of boys in the class = \(72 \times \frac{5}{9} = 40\)

Number of girls in the class = \(72 \times \frac{4}{9} = 32\)

Required average = \(\frac{(60 \times 72) - (40 \times 80)}{32} = \frac{4320 - 3200}{32}\)

= 35 kg
71. (a); Refer to the first paragraph. The hint can be drawn from the lines, 'The balance of an ecosystem depends on the presence of every type of animal. If one type of animal becomes too numerous or scarce, the entire balance of the ecosystem will change.'
   In this way, option (a) is justified with the given lines. Hence, it is the correct answer choice.

72. (d); Refer to the second paragraph. The hint can be drawn from the lines, 'Carnivores will feed on herbivores, omnivores, and other carnivores in an ecosystem. A natural community depends on the presence of carnivores to control the populations of other animals.'
   Option (a), (b), and (c) are justified with the above lines. Hence option (d)[All (a), (b), and (c)] is the right answer choice.

73. (c); Refer to the last part of second paragraph. The hint can be drawn from the lines, 'Carnivores depend on sufficient prey in the food chain to give them the food they need. If the herbivore population or the population of other carnivores declines in an ecosystem, carnivores may not survive.'
   From these lines, both option (a) and (b) are justifies. Hence, option (c)[Both (a) and (b)] is the right answer choice.

74. (e); Refer to the third paragraph. The hint can be drawn from the lines:
   Option (a): With a diet comprised of only plants, herbivores can be surprisingly large animals.
   Option (b): An ecosystem must provide abundant plants to sustain herbivores
   Option (c): many of them spend the majority of their lives eating to stay alive
   Option (d): Herbivores usually have special biological systems to digest a variety of different plants.
   Hence, option (e), [All of the above] is the right answer choice.

75. (b); Refer to the fourth paragraph. The hint can be drawn from the lines:
   Option (a): Omnivores have an advantage in an ecosystem because their diet is the most diverse.
   Option (c): These animals can vary their diet depending on the food that is most plentiful, sometimes eating plants and other times eating meat.
   Hence, option (b), [Both (a) and (c)] is the right answer choice.

76. (b); Abundant can fill in the blank (1) to make the sentence grammatically and contextually correct. Hence, option (b) is the right answer choice.

77. (c); Equilibrium is most similar in meaning with the given word. Hence, option (c) is the right answer choice.

78. (a); Inadequate is most opposite in meaning with the given word. Hence, option (a) is the right answer choice.

79. (b); Stabilized can fit the blank (79) to make it grammatically and contextually correct sentence. Hence, option (b) is the right answer choice.

80. (d); Blunder can fit the blank (80) to make it grammatically and contextually correct sentence. Hence, option (d) is the right answer choice.

81. (a); Suffice can fill in the blank (81) to make it grammatically and contextually correct sentence. Hence, option (a) is the right answer choice.

82. (c); Supervise can fit the blank (82) to make it grammatically and contextually correct sentence. Hence, option (c) is the right answer choice.

83. (b); Reflexive can fit the blank (83) to make it grammatically and contextually correct sentence. Hence, option (b) is the right answer choice.

84. (c); Customary can fit the blank (84) to make it grammatically and contextually correct sentence. Hence, option (c) is the right answer choice.

85. (b); From the given options, (i) will make the given sentence grammatically incorrect whereas option (iii) is out of context. So, only 'Transitioning' will fit the given blank to make the given sentence both grammatically and contextually correct. Hence, the correct answer choice would be option (b)

86. (d); Evoke means bring or recall.
   So, from the given options, 'Evoke' and 'Recall' fits the given blank to make the given sentence both grammatically and contextually correct. Hence, the correct answer choice would be option (d)
87. (a); From the given options, option (ii) and (iii) will make the given sentence contextually meaningless. So, only 'proposal' fits the given blank to make the given sentence both grammatically and contextually correct. Hence, the correct answer choice would be option (a)

88. (c); As the given sentence is talking about increasing the speed of trains to reduce running time and about the infrastructure across the railway network, the appropriate filler for the given blank would be 'Effectiveness' and 'utilisation'. Hence, the correct answer choice would be option (c)

89. (b); Taking hint from the last part of the sentence which is talking about the low growth, the appropriate filler for the given blank would be 'cuts'. Hence, the correct answer choice would be option (b)

90. (a); In the given sentence, 'Accounts' and 'Generation' at their current position fails to impart valid meaning to the sentence. But interchanging them will make the given sentence both grammatically and contextually correct. Hence, the correct answer choice would be option (a)

91. (e); All of the given highlighted words are correct at their respective position. Hence, the correct answer choice would be option (e)

92. (c); In the given sentence, 'caught' and 'attention' at their current position are incorrect as they fails to impart valid meaning to the sentence but interchanging them will make the sentence both grammatically and contextually correct. Hence, the correct answer choice would be option (c)

93. (b); In the given question, 'Economic' at its current position fails to impart reasonable meaning to the sentence, also, it is not in accordance with the sentence structure. But, interchanging it with 'Power' will make the given sentence both grammatically and contextually correct. Hence, the correct answer choice would be option (b)

94. (c); In the given statement, 'stayed' and 'expected' at their current position fails to add a reasonable sense in the sentence but interchanging them will make the given sentence both grammatically and contextually correct. Hence, the correct answer choice would be option (c)

95. (c); From the given words, spelling of 'Necessary' is incorrect, instead it should be 'Necessary' which means essential. Hence, the correct answer choice would be option (c)

96. (a); From the given words, spelling of 'Provisons' is incorrect instead it should be 'Provisions' which means the action of providing or supplying something for use. Hence, the correct answer choice would be option (a)

97. (c); From the given options, spelling of 'Liberalisaetion' is incorrect instead it should be 'Liberalisation' which means the removal or loosening of restrictions on something. Hence, the correct answer choice would be option (c)

98. (e); There is no spelling error in the highlighted words. Hence, the correct answer choice would be option (e)

99. (b); From the given options, spelling of 'essenteal' is incorrect instead it should be 'essential' which means absolutely necessary; extremely important. Hence, the correct answer choice would be option (b)

100. (a); From the given words, spelling of 'Bureou' is incorrect instead it should be 'Bureau' which means an office or department for transacting particular business. Hence, the correct answer choice would be option (a)