

## REASONING ABILITY

**Directions (1-5):** Study the following information carefully and below to answer these questions.

Seven family members namely A, Q, R, C, I, M and N start their own business in four different startups i.e., Mobile enterprises, Cement Agency, Arm & sons and Garments, but not necessarily in the same order. Not more than two members start business in same startups. Also, some member likes fruits and some member likes colours. Fruits are Orange, Litchi, Apple, Banana and colours are red, yellow and pink but not necessarily in the same order.

M's brother-in-law starts his business with M's uncle in the same startups and likes Banana. Only A's wife starts her business in the 'Cement Agency' startups. M's husband starts his business with M's father in the Mobile enterprises startups and does not like Orange. M's daughter likes yellow colour but does not starts her business in Garments startups. C is brother-in-law of N, who is a female and Q is brother of one of the married male person of the family. M's mother starts her business in the same startups as A's daughter. No one who starts their business in the Mobile enterprises and 'Arm & sons' startups likes Apple. I's maternal grandfather likes red colour. The one who likes pink colour starts his/her business in the Garments startups.

1. Who among the following person starts his/her business in the Garments startups?  
(a) A (b) C (c) R  
(d) Q (e) Both (b) and (d)
2. How many persons starts their business in Arms & sons startups?  
(a) Two (b) One (c) Three  
(d) Either (a) or (b) (e) None of these
3. How is R related to A?  
(a) Husband (b) Father-in-law (c) Uncle  
(d) Brother (e) None of these
4. Who among the following person likes Apple?  
(a) R's son-in-law (b) I (c) C  
(d) A's wife (e) None of these
5. R's brother likes which of the following colour/fruit?  
(a) Red (b) Apple (c) Orange  
(d) Pink (e) None of these

**Directions (6-10):** Study the following information carefully to answer the given questions.

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

**Input: 95 11 76 21 89 42 64 31**

Step I: 2 76 21 89 42 64 31 14

Step II: 3 2 76 42 64 31 14 17

Step III: 4 3 2 42 64 14 17 13

Step IV: 6 4 3 2 14 17 13 10

Step IV, is the last step.

Input: 57 21 16 49 23 29 36 42 45 51

6. How many steps are required to complete the given arrangement?  
(a) III (b) V (c) IV  
(d) VI (e) None of these
7. How many elements are there between '3' and '42' in step-II?  
(a) Two (b) One (c) Three  
(d) Four (e) None of these
8. Which number would be at the fourth position from the right end in the penultimate step of the output?  
(a) 7 (b) 6 (c) 13  
(d) 12 (e) None of these
9. What is the sum of the third element from the left in step III and 2nd from the right in step IV?  
(a) 17 (b) 16 (c) 30  
(d) 10 (e) None of these
10. What is the difference between the third element from the right in step IV and the second element from the left in step III?  
(a) 2 (b) 4 (c) 8  
(d) 3 (e) None of these

**Directions (11-15):** Study the information carefully and answer the questions given below.

Seven person A, B, C, D, E, G and F live in a building having seven floors such that the ground floor is numbered 0, the floor just above it is numbered 1 and so on till the topmost floor numbered 6. They all like different colours. G lives above C. The addition of floor numbers of E and A is one less than the floor number on which C lives. D lives just

above F. A does not like Grey. At least one person lives between the one who like Orange and D. Not more than one person lives between B and E. Three persons live between A and the one who like Blue. B like Pink. The one who likes Grey does not live next to the one who like Blue. Equal number of persons live between D and E and the ones who like Red and White. The one who like White lives immediate above the one who like Blue. G likes Black.

11. Who among the following live on the floor immediate below G?  
 (a) E (b) F (c) C  
 (d) B (e) none of these
12. How many persons live between B and the one likes Red?  
 (a) Two (b) One (c) Three  
 (d) Four (e) None of these
13. On which of the following floors does B live?  
 (a) 1st (b) 2nd (c) 3rd  
 (d) 4th (e) none of these
14. Who among the following like Orange?  
 (a) E (b) F (c) C  
 (d) B (e) none of these
15. Four of following form a group find the one that does not belong to that group?  
 (a) E,C (b) F,B (c) C,B  
 (d) B,A (e) A,E

**Direction (16-18):** 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.

**16. Statements:** Only a few Field are Grass. Few Grass are Tree. All Tree are Green.

**Conclusions:** I. Some Field are not Grass.  
 II. Some Field are not Green.

**17. Statements:** Only Fruit are Candy. No Sweet is Candy.

**Conclusions:** I. All Sweet being Candy is a possibility.  
 II. Some Fruit can never be Sweet.

**18. Statements:** Some Red are Blue. No Pink is Blue. All Pink are White.

**Conclusions:** I. Some Red are not Pink.  
 II. Some Blue can never be White.

**Directions (19-23):** Study the following information carefully and answer the questions given below:

There is CD axis in such a way that C is to the west of D. There is XY axis in such a way that X is to the north of Y. CD axis intersect with XY axis at a point Q in such a way that CQ is 16m, QD is 19m, QX is 14m, QY is 20 m.

P1 starts walking along the CD axis towards D, starting from point C after walking 18m he takes a right turn and after walking a distance which is half of the distance between QY line he stops at point N. Point S is to the south of point L. P2 starts walking along the QX axis after walking 7m to the north from point Q he takes a right turn and walks for 2m and stops at point K. P3 takes a left turn from point X and after walking a distance which is greater than 16m he stops at point L. P4 starts walking along the QY line from a point towards Y to reach point A such that distance between point A and point Y is 1m less than CQ and then takes a right turn and after walking 32m he stops at point S.

19. What is the shortest distance between points Q and K?  
 (a)  $\sqrt{53}$ m (b)  $\sqrt{55}$ m (c)  $5\sqrt{13}$ m  
 (d) 53m (e) None of these
20. What is the shortest distance between Point L and point S?  
 (a) 18m (b) 22m (c) 19m  
 (d) 17m (e) None of these
21. In which direction is point L with respect to P1's final position?  
 (a) North east (b) South east (c) North  
 (d) South (e) North west
22. Which of the following points are in a straight line?  
 (a) K X Q (b) Q Y D (c) D Q C  
 (d) S Y D (e) None of these
23. What is the total distance between points L and X and also determine in which direction is point X with respect to the point C?  
 (a) 32m, North west (b) 32m, North east  
 (c) 32m, South east (d) 35m, South  
 (e) None of these

**Directions (24-25):** These questions are based on the following five numbers:

**196 615 254 431 329**

24. If we arranged all digits in decreasing order within the number from left then, how many Odd numbers thus obtained?  
 (a) One (b) None (c) Three  
 (d) Two (e) More than three
25. If we interchanged 1<sup>st</sup> and 3<sup>rd</sup> digit of each number then, find the largest number thus obtained?  
 (a) 615 (b) 329 (c) 254  
 (d) 196 (e) 431

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

Eight persons i.e. A, B, C, D, P, Q, R and S are sitting in two parallel rows but not necessarily in same order. Persons sitting in one row are facing the persons sitting in another row. Persons sitting in row 1 are facing North and persons sitting in row 2 are facing South. They get different marks in the exam.

S sits 2<sup>nd</sup> to the right of the person who faces P. Persons who get minimum and maximum marks in the exam are sitting at extreme ends. Difference between the marks of Q and S is 7. Person who gets 15 marks sits 2<sup>nd</sup> to the left of the person who gets 40 marks. Person who gets 30 marks is an immediate neighbor of the persons who get 63 and 70 marks. C faces the person who gets 55 marks. Person who gets 50 marks sits immediate left of P. C gets 25 marks. B sits 2<sup>nd</sup> to the left of D. P faces North. D doesn't get 55 marks. R gets double marks than C.

**26.** How many marks D gets in the exam?

- (a) 15                      (b) 25                      (c) 30  
(d) 40                      (e) None of these

**27.** Who among the following person gets highest marks?

- (a) A                      (b) Q                      (c) P  
(d) S                      (e) None of these

**28.** What is the position of A with respect to R?

- (a) Immediate right                      (b) Immediate left  
(c) 2<sup>nd</sup> to the right                      (d) 2<sup>nd</sup> to the left  
(e) None of these

**29.** Which of the following is not true regarding B?

- (a) B sits at extreme end  
(b) C faces B  
(c) B gets 3<sup>rd</sup> highest marks  
(d) Two persons are sitting between B and S  
(e) All are true

**30.** If P is related to 15, C is related to 50 then, in the same order who is related to 55?

- (a) S                      (b) D                      (c) Q  
(d) R                      (e) None of these

**31.** Analyzing resting state functional MRIs, the study, published recently in the online journal Neurolmage Clinical, reveals that HIV-infected children have lower neuropsychological test scores thus reflecting reduced memory span, attention deficit and decreased visual-motor coordination among other conditions.

**Which of the following can be inferred from the given statement?**

- (a) Those children who are not infected with HIV have sharper memory.  
(b) Only MRI's can provide the exact picture or image of your inside body.  
(c) These symptoms such as reduced memory span, attention deficit and decreased visual-motor coordination can only be seen among children.  
(d) HIV is a disease which only affects the brain in the human body.  
(e) HIV infected Children who are neuropsychologically stronger are less vulnerable towards disease such as reduced memory span, attention deficit etc.

**Direction (32):** Study the information carefully and find which of the following can be concluded from the given statement.

**32.** Company A's profit has been declining in third continuous year and its employees are also resigning from the company as they are not finding their future secure in the company.

**Conclusion:**

- (I) The employees of company A who resigned got better opportunities.  
(II) The company A's profit has been declining as its product is not based latest technology.  
(a) Only I                      (b) Only II                      (c) Both I and II  
(d) Either I or II                      (e) Neither I nor II

**33.** The increasing amount of NPA in public sector banks is causing trouble for RBI and for India's GDP as well.

Which of the following course of action can be following based on the given statement?

**Course of Action-**

- (I) RBI should make a committee to review the problem of NPA and also to find out suitable measures to curb it.  
(II) All the public sector banks should be privatized as this is the only way to get rid from increasing NPA.  
(a) Only I                      (b) Only II                      (c) Both I and II  
(d) Either I or II                      (e) Neither I nor II

**Direction (34-38):** Study the following information carefully and answer the given questions.

A certain number of persons sit in a row facing North. All of them likes different color.

Only seven persons sit between S and D, who likes green. Only three persons sit between S and L. L sits 3<sup>rd</sup> from one of the ends. As many persons sit to the left of S is same as to the right of M. M sits immediate left of D and likes red color. Q likes grey color and sits sixth to the right of M. J sits

4<sup>th</sup> to the left of M and likes peach color. The number of persons sitting between J and Q are one more than the number of persons sitting to the left of N, who likes black. F likes blue and sit at one of the ends. The one who sits second to the left of N likes yellow color. The one who likes violet sits 4<sup>th</sup> to the left of one who likes yellow.

34. How many persons sit in the row?

- (a) 22 (b) 23 (c) 21  
(d) 20 (e) 18

35. Who likes violet Color?

- (a) the one who sits 3<sup>rd</sup> to left of M  
(b) the one who sits 2<sup>nd</sup> to right of D  
(c) the one who sits 2<sup>nd</sup> to right of F  
(d) S  
(e) cannot be determined

36. What is the position of S with respect to the one who likes peach color?

- (a) third to the left (b) Fifth to the left  
(c) Third to the right (d) Second to the right  
(e) Fourth to the left

37. Who sits exactly between D and the one who likes violet color?

- (a) the one who likes blue  
(b) the one who likes red  
(c) the one who likes grey  
(d) the one who likes yellow  
(e) the one who likes black

38. How many persons sit to the right of Q?

- (a) 13 (b) 4 (c) 8  
(d) 5 (e) None of these

39. **Statement:** A slump in home sales has pushed builders' inventory to "unsustainable levels" in the National Capital Region of Delhi, creating conditions for a real price correction that developers have so far avoided.

**Which of the following statements is definitely true on the basis of the given statement?**

- (a) Demand for houses is quite low in most of the big cities.  
(b) The high inventory level will hamper the ability of launching new projects by the builders.  
(c) Builders in the market who have shown a good track record of delivering on time and on their promises have been able to garner sales even in this slow market.  
(d) Unless this unsold stock gets absorbed, it will be difficult for consumer confidence to come back in this market.  
(e) High prices have pushed most of the on-sale apartments beyond the reach of average home buyers.

40. **Statement:** According to the manpower Employment Outlook Survey, globally, Indian employers are the most upbeat on hiring plans in the fourth quarter ending December 2015.

Which of the following can be an assumption in the given information? (An assumption is something that is supposed or taken for granted)

- (a) Decline in the profit margins of the company  
(b) Establishment of more branches by the MNCs in India  
(c) Maintenance of positive growth rate by the MNCs in India.  
(d) Increase in the growth of service sector in June 2015.  
(a) Only A and C (b) Only B and D (c) Only A and B  
(d) Only C and D (e) Only B and C

**Directions (41-45):** Each of the following questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and give answer.

- (a) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient in answer the question.  
(b) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.  
(c) if the data in either in statement I alone or in statement II alone are sufficient to answer the question.  
(d) if the data in both the statements I and II together are not sufficient to answer the question.  
(e) if the data in both the statements I and II are together necessary to answer the question.

41. Eight persons M, N, O, P, Q, R, S and T are sitting around a circular table facing the center. Who sits opposite to M?

- I. P sits second to the left of R and sits opposite to Q. T is an immediate neighbor of N and O.  
II. S sits third to the left of Q. O sits second to the right of M.

42. Who among U, V, W, X, Y and Z get the lowest rank in the class?

- I. U's rank is lower than X and Z. V's rank is higher than W. Y's rank is not high as X's rank.  
II. V's rank is higher than X. Z's rank is lower than X and Y. No one gets rank between W and X, and W and Y.

43. Six friends A, C, E, G, K and M are sitting in a row facing in the north direction. Who sits between E and K?

- I. A sits second from the right end. E sits third to the left of C.  
II. C is not an immediate neighbour of M, who does not sit at any of the extreme ends.

44. There are six members F, G, H, J, K and L in a family, than how is J related to F ?

- I. K is mother of L. H is granddaughter of F, who is husband of K.
- II. G is father of J and son-in-law of K.

45. Among five friends A, B, C, D and E having different weights, who is the lightest?

- I. C is lighter than only one friend. Only one friend is lighter than E. A is not the heaviest.
- II. C is heavier than only three friends. Only one friend is lighter than E. A is neither the heaviest nor the lightest in the group. B is the heaviest in the group.

**Directions (46-50):** Read the following information carefully and answer the questions given below:

Nine persons i.e. P, Q, R, S, T, X, W, U and V who all born on different dates in three different months of the same year i.e. January, June and December but not necessarily in the same order. Only three persons born in any of the month. One person born between P and V and both doesn't born in the same month. P born on the 30<sup>th</sup> of the month. T born on 25<sup>th</sup> of a month having 30 days. V born on 26<sup>th</sup> of a month. P does not born in the month having 30 days. Three persons born between P and X. Only two persons born between R and T. The one who born immediately before Q was born on 18<sup>th</sup>. The number of persons born between U and V is same as the number of persons born between V and W. S born on 27<sup>th</sup>. One of the persons born on 29<sup>th</sup> in the month of January. There is a difference of 8 days between the birthdate of Q and S. X born on 16<sup>th</sup> of a month. There is a difference of 5 days between the birthdate of X and R. R born on a prime number date. W does not born on odd number date.

46. How many persons born after T?

- (a) Two
- (b) Three
- (c) More than three
- (d) One
- (e) No One

47. Who among the following pair of persons born in the same month?

- (a) W and V
- (b) V and P
- (c) Q and U
- (d) W and R
- (e) None of these

48. Who among the following born immediately after W?

- (a) U
- (b) P
- (c) S
- (d) Q
- (e) None of these

49. R born on which of the following date?

- (a) 16<sup>th</sup>
- (b) 29<sup>th</sup>
- (c) 11<sup>th</sup>
- (d) 26<sup>th</sup>
- (e) None of these

50. Who among the following born immediately after Q?

- (a) U
- (b) P
- (c) S
- (d) R
- (e) None of these

**Direction (51-55):** In these questions, relationship between different elements is show in the statements. The statements are followed by conclusions. Study the conclusions based on the given statements and select the appropriate 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.

51. **Statements:**  $G < U \leq R = T \leq W < Q \geq S = F$

**Conclusions:** I.  $R < Q$  II.  $F > T$

52. **Statements:**  $O \geq T \geq Y > R = D$ ;  $E < W = R$

**Conclusions:** I.  $D = W$  II.  $D > E$

53. **Statements:**  $H > U \geq T \geq W = Q \leq L = M \leq F$

**Conclusions:** I.  $W < F$  II.  $Q = F$

54. **Statements:**  $S > D = T \geq I > K \leq L$ ;  $D \leq P \leq O$

**Conclusions:** I.  $O > K$  II.  $L > D$

55. **Statements:**  $U < F \leq G = C < X \geq Z > S$

**Conclusions:** I.  $G > Z$  II.  $C > U$

**Direction (56-60):** Study the following information carefully and answer the questions given below:

In a certain code language:

"very heavy rain" is coded as "sd cg rv"

"heavy weight boxer" is coded as "cg yh jn"

"very high weight" is coded as "sd jn az"

56. What is the code of "boxer" as per the given code language?

- (a) cg
- (b) yh
- (c) jn
- (d) sd
- (e) None of these

57. What is the code of "rain" as per the given code language?

- (a) cg
- (b) sd
- (c) az
- (d) rv
- (e) None of these

58. Which of the following words has code of "cg jn" as per the given code language?

- (a) boxer weight
- (b) heavy weight
- (c) heavy rain
- (d) high weight
- (e) None of these

59. Which of the following words has the code of "sd az rv" as per the given code language?

- (a) high weight boxer
- (b) high weight rain
- (c) very high rain
- (d) very heavy boxer
- (e) None of these

60. What is the code of "high weight" as per the given code language?

- (a) az yh
- (b) sd rv
- (c) cg jn
- (d) az jn
- (e) None of these

## QUANTITATIVE APTITUDE

**Directions (61-65):** Study the following information given in the paragraph and answer the questions accordingly.

Following information gives data regarding number of persons in a village who plays different sports i.e. Cricket, Football and Hockey. Each person plays at least one sports.

There are total 800 persons in a village who plays sports. 43 % of the total persons plays Cricket, 52.5 % of the total persons plays football and 55 % of the total persons plays Hockey. 96 persons plays both cricket and football but not Hockey. 100 persons plays both cricket and Hockey but not Football, 88 players plays both Hockey and Football but not cricket and 60 persons plays all the three sports.

**61.** Find the percentage of persons who plays at least two sports?

- (a) 47 %                      (b) 43 %                      (c) 10 %  
(d) 14 %                      (e) 15 %

**62.** Find the difference of persons who plays only football and persons who play only hockey?

- (a) 20                      (b) 18                      (c) 16  
(d) 24                      (e) 12

**63.** How many persons are there who plays neither football nor cricket?

- (a) 172                      (b) 144                      (c) 176  
(d) 192                      (e) 156

**64.** Find the respective ratio of persons playing both cricket and football to the persons playing both football and hockey together?

- (a) 12: 11                      (b) 11: 12                      (c) 9: 13  
(d) 8: 15                      (e) 12: 13

**65.** Number of persons playing only football is what percent more/less than the persons playing both cricket and hockey together?

- (a) 64 %                      (b) 82 %                      (c) 80%  
(d) 76 %                      (e) 55%

**Directions (66-70):** Find the approximate value of question mark (?) in the following questions-

**66.** ? % of 24.91% of 39.93% of  $((11.93)^2 + 5.98) = 2.25$

- (a) 12                      (b) 18                      (c) 20  
(d) 15                      (e) 25

**67.**  $(7.92)^3 + (7.92)^2 = -99.96 + (?)^2$

- (a) 26                      (b) 24                      (c) 36  
(d) 16                      (e) 25

**68.**  $\frac{32.99 \times 41.89 \times 4.98}{10.93 \times 14.88} + 13.97 = ? \% \text{ of } 279.88$

- (a) 35                      (b) 15                      (c) 25  
(d) 30                      (e) 20

**69.**  $96.96 + 996.96 - 99.66 + 999.96 + 5.96 = 399.96 \times ?$

- (a) 8                      (b) 7                      (c) 6  
(d) 5                      (e) 4

**70.**  $9.99\% \text{ of } 299.99 = (?)^3 + (?)$

- (a) 6                      (b) 2                      (c) 5  
(d) 4                      (e) 3

**71.** My sister was born 26 yrs after my mother was born and I was born 28 yrs after my father was born. The present average age of my family is 32.5 yrs. After 3 yrs from now my sister will get married and will leave the family, then average age of family will become 41 yrs. What is the present age of my mother?(in yrs)

- (a) 40                      (b) 50                      (c) 45  
(d) 41                      (e) 42

**72.** Sudeep marked up the price at a price higher than cost price & gave 10% discount on every purchase and a complimentary chocolate box worth Rs. 300 on minimum purchase of Rs. 2000. This way he gained 20%. If a customer purchased for Rs. 3000. Find the cost price for Sudeep for the articles sold.

- (a) Rs. 2500                      (b) Rs. 2250                      (c) Rs. 2750  
(d) Rs. 2000                      (e) None of these

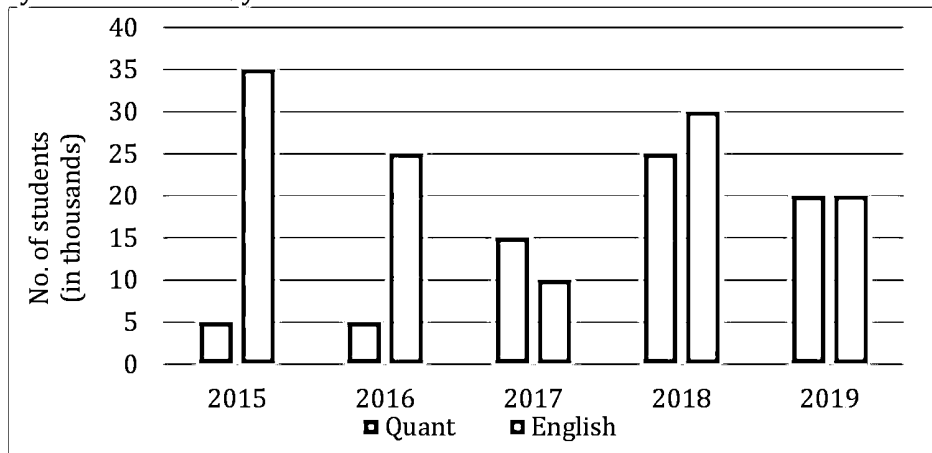
**73.** Ritesh travels at 1 kmph to reach station 500m far from his house to catch a train. He started but after 4 minutes, he realized that he forgot a document at home so he returned with same speed. What should be his speed (in kmph) so that he catches the train?

- (a) 0.36                      (b) 0.27                      (c) 1.27  
(d) 1.36                      (e) 1.5

**74.** Length of a rectangular land is twice the radius of a circle of circumference 132 cm. The land area got increased by 144 sq.cm, when a square land is attached along the breadth of the rectangle. Find area of rectangle in sq.cm.

- (a) 1008                      (b) 257                      (c) 504  
(d) 756                      (e) 1512

**Directions (75-79):** Given bar graph shows no. of students (in thousands) who opted for three different specialization during the given five years in a university.



75. Out of total number of students who opted for the given three subjects, in year 2019, 38% were girls. How many boys opted for reasoning in the same year?  
 (a) 1124 (b) 1536 (c) 1316 (d) Cannot be determined (e) None of these
76. If the total number of students in the university in the year 2017 was 4,00,000, then the total number of students who opted for the given three subjects were what percent of the total students?  
 (a) 17% (b) 10% (c) 14% (d) 7% (e) 21%
77. What is the total number of students who opted for Quant and reasoning together in the years 2016, 2017 and 2019 together?  
 (a) 97000 (b) 93000 (c) 85000 (d) 96000 (e) 95000
78. The total number of students who opted for Reasoning in the years 2015 and 2018 together are approximately what percent of the total number of students who opted for all three subjects in same years? (approx.)  
 (a) 36% (b) 24% (c) 44% (d) 32% (e) 46%
79. What is the respective ratio between the number of students who opted for English in the years 2016 and 2018 together to the number of students who opted for Quant in the years 2015 and 2019 together?  
 (a) 11 : 5 (b) 11 : 9 (c) 11 : 7 (d) 14 : 3 (e) 13 : 7
80. A tank contains 384 liters mixture of milk & water in the ratio of 15 : 17. If X liters of mixture taken out and (X - 14) liters of milk & (X - 34) liters of water added in remaining mixture so ratio of milk & water becomes equal. Find quantity of milk in original mixture is what percent of total final mixture?  
 (a) 40% (b) 35% (c) 45% (d) 50% (e) 25%
81. Anurag & Ravi entered into a business with capital of Rs. 2000 & Rs. 1600 respectively. At the end of 8<sup>th</sup> month Anurag added Rs. 400 more and he left the business after 10 months, after one year's Ravi invested his profit in a scheme, which offers CI at 20% p.a. If after two years Ravi gets total amount of Rs. 6912, then find total profit of Anurag?  
 (a) 5200 Rs. (b) 2550 Rs. (c) 10200 Rs. (d) 7650 Rs. (e) 2700 Rs.
82. 8 men and 10 women can do a work in 15 days while 10 men and 18 women can do that work in 10 days. 4 men and 5 women started the work and after 10 days all men left the work then find how many more women would be required to complete the whole work in 21 days?  
 (a) 12 (b) 15 (c) 16 (d) 10 (e) 18
83. A, B & C are three inlet pipes. Time taken by A & B together to fill half of the tank is same as time taken by pipe C alone to fill one - sixth of the tank. If A, B & C together can fill the tank in 9 hours, then find time taken by pipe C alone to fill the tank?  
 (a) 24 hours (b) 18 hours (c) 28 hours (d) 36 hours (e) 42 hours
84. A man invested Rs. 1600 on CI for two years at the rate of R% p.a. and gets amount of Rs. 2304. If man invested same sum on SI for same period of time at the rate of (R - 8)%, then find interest he will get?  
 (a) 384 Rs. (b) 324 Rs. (c) 316 Rs. (d) 372 Rs. (e) 306 Rs.

**85.** In a village-X, a total of 6000 registered voters (male + female) had cast their votes in which 70% of total registered male voters and 45% of total registered female voters had voted. If total registered male voters are 2000 more than total registered female voters, then find the total number of registered voters in village-X.

- (a) 20000      (b) 15000      (c) 10000  
(d) 5000      (e) 25000

**Directions (86-90):** What will come in place of (?) in the following number series?

**86.** 120, 60, 60, 90, 180, ?

- (a) 420      (b) 450      (c) 400  
(d) 500      (e) 540

**87.** ?, 190, 210, 238, 274, 318

- (a) 170      (b) 198      (c) 186  
(d) 178      (e) 190

**88.** 112, ?, 166, 238, 382, 670

- (a) 152      (b) 135      (c) 144  
(d) 126      (e) 130

**89.** 138, 210, 66, 282, -6, ?

- (a) 354      (b) 320      (c) 336  
(d) 348      (e) 360

**90.** 72, 80, 71, 135, ?, 326

- (a) 125      (b) 110      (c) 90  
(d) 105      (e) 95

## ENGLISH LANGUAGE

**Direction (91-100):** Read the following passage carefully and answer the questions given below it. Certain words are given in bold to help you locate them while answering some of the questions.

**Paragraph 1:** Most CEOs are **grappling** with one particular challenge, irrespective of industry or geography: getting the right leadership talent. Governments face this challenge too. The Indian government has responded to this challenge by taking the initiative to invite executives from beyond the ranks of the civil service to apply for certain Joint Secretary posts. While the idea clearly has merit, success is not automatically guaranteed. Through working around with the government, there are few elements too that increase the chance of success. Among them establishing objective criteria is one. The key decision makers involved in making a senior appointment rarely agree on what skills, qualities and experiences the role requires— and when they do, there is no guarantee that the requirements agreed to are the ones that are actually needed to be successful. This is why the process must begin with a real probing of the position and its larger context.

**Paragraph 2:** Having objective criteria also gives decision makers confidence that their appointments will be able to stand up to public scrutiny without fear of seeming biased towards or against candidates for caste, geography, political affiliation or other considerations. Public announcements inviting lateral entry applicants for open government positions preserve transparency but are not very effective recruiting strategies. Top talent has many options outside of public service. Government, therefore, cannot sit back and wait for these candidates to present themselves. It must **proactively** identify and approach executives with the desired skills and experience.

Precisely because the competition for talent is so intense, most successful corporations — even those regarded as highly desirable employers — follow this strategy. Very often governments are reluctant to follow suit so as to not appear to favor candidates. This is where the objective criteria come in. The fact that a given executive is approached and encouraged to apply is no guarantee that he or she will be appointed.

**Paragraph 3:** Our work with governments around the world suggests that in addition to the right motivation there are three key personal traits that predict success of lateral hires in such roles. The first is **resilience**. Government bureaucracy can be tough on outsiders; it is essential to have the ability to persevere in the face of constant pulls and pressures and aligning multiple stakeholders. Successful lateral hires also have a high level of curiosity. They acknowledge that they don't have all the answers, are eager to learn and model their behavior accordingly. These candidates know that while they may have many useful new ideas, they also have much to learn from career civil servants and that government has its own systems, formal and informal, that must be grasped before any innovations can be proposed. Finally, they have the ability to engage others. The ability to build consensus among stakeholders is essential. The government screening process traditionally includes appearing before a section panel of three to five interviewers, who each take their turn investigating topics they have divided between themselves. Unfortunately, this approach often results in only a surface-level understanding of the candidate. We have found that one-on-one or two-on-one interviews allow for a much more meaningful exploration of key points of a candidate's career, their mindset and approach. More focused interviews should be supplemented with



extensive referencing with finalist candidates. This combination of data will provide insight into a candidate's character, integrity and moral compass — all critical qualities for government roles.

**Paragraph 4:** Also government must accelerate the hire's integration. Successful recruiting is only part of the equation; the selected lateral hire must also be **primed** for success in his or her new organization. We were able to demonstrate the benefits of a systematic approach with a senior executive that we hired for the cabinet of a European country. We started by identifying cultural differences between the executive's old and new environments and helped develop strategies the executive could use to navigate this change. We then created an extensive playbook with detailed profiles of the management team outlining each person's priorities and concerns, and provided coaching to help the executive best position himself with his new peers. India's lateral entry programme has the potential to introduce new thinking and new expertise into key ministries. **Leveraging** on lessons learned elsewhere will allow India to more completely draw from the country's rich array of talent while maintaining the objectivity necessary to preserve the public trust.

91. What are the few elements mentioned in the passage that increase the chances of success in making the lateral entry work?
- (a) Establishing objective criteria.
  - (b) Target the talent one needs.
  - (c) Successful lateral hires also have a high level of curiosity.
  - (d) Accelerating the new hire's integration.
  - (e) All of these.
92. Why is India's lateral entry program not very effective in recruiting strategies for government positions despite the transparency?
- (a) Because of the new thinking into key ministries.
  - (b) As their approach is not very clear.
  - (c) The competition for talent is so intense even in most successful corporations.
  - (d) As it gives insight into a candidate's character, integrity and moral compass.
  - (e) None of these.
93. What is the main confrontation faced by the government and the directors of various multinational companies?
- (a) To create strong formal innovations.
  - (b) To proactively identify and reach appropriate employees.
  - (c) To bring on the high level of curiosity.
  - (d) How to get the right leadership talent.
  - (e) None of these.

94. Why is government bureaucracy essential in case of lateral hiring in government?

- (a) To keep the best position of executive to itself.
- (b) As it plays important role in case of perseverance at times of constant pressures.
- (c) For aligning multiple stakeholders.
- (d) Both (a) and (b).
- (e) Both (b) and (c).

95. What are the techniques that author is referring to that would provide an insight into a candidate's character and integrity?

- (a) Being unbiased towards or against candidates for caste, geography, political affiliation or other considerations.
- (b) Focused interviews along with extensive referencing with finalist candidates.
- (c) Systematic approach to know the strategies of the candidate.
- (d) Analyzing the skills required to provide an insight into a candidate's character.
- (e) None of these.

**Direction (6-8):** Choose the word which is most nearly the SAME in meaning as the word printed in bold as used in the passage.

96. **Grappling**

- (a) Releasing
- (b) Unfettering
- (c) Contending
- (d) Extricating
- (e) Abandoning

97. **Proactively**

- (a) Passively
- (b) Preemptively
- (c) Inertly
- (d) Retroactively
- (e) Irresolutely

98. **Resilience**

- (a) Obduracy
- (b) Pliability
- (c) Frailty
- (d) Rigidity
- (e) Tenacity

**Directions (99-100):** Choose the word which is the OPPOSITE in meaning as the word printed in bold as used in the passage.

99. **Primed**

- (a) Equipped
- (b) Loaded
- (c) Charged
- (d) Groomed
- (e) Impulsive

100. **Leveraging**

- (a) Swaying
- (b) Influencing
- (c) Dissuading
- (d) Clouting
- (e) Esteeming

**Directions (101-105):** Read each sentence to find out whether there is any grammatical or idiomatic 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 option (e). (Ignore errors of punctuation, if any.)

101. (a) The infection which causes / (b) gums to bleed and teeth to fall out / (c) result from the build-up of / (d) a particular bacterium that is common to most mouths. / (e) No error

102. (a) After forty years of trying to / (b) understand why asbestos causes cancer, / (c) researchers have finally / (d) unraveled the mystery. / (e) No error
103. (a) A property dealer was / (b) shoot dead by four unidentified jacket-clad men / (c) while taking a morning walk / (d) in the park. / (e) No error
104. Having worked (a)/ for the whole day (b)/ you could have taken some rest (c)/ and start work tomorrow. (d)/ No error. (e)
105. Scarcely had he (a)/ gone a few steps (b)/ that he was told by someone (c)/ that his mother was no more. (d)/ No error. (e)

**Directions (106-111):** In the following passage, some of the words have been left out, each of which is indicated by a number. Find the suitable word from the options given against each number and fill up the blanks with appropriate words to make the paragraph meaningfully complete.

The researchers first asked a narrow, \_\_ (16) \_\_ question about whether people paid others to do "unenjoyable daily tasks," such as domestic work, to be able to " \_\_ (17) \_\_ their free time."

Only 28 percent of respondents said yes, spending an average \$147.95 per month to buy themselves extra time. These people also \_\_ (18) \_\_ increased life satisfaction compared to those who did not \_\_ (19) \_\_ money this way.

In the second part of the \_\_ (20) \_\_, researchers asked more than 1,800 Americans whether they spent money to buy "more free time." The responses were roughly \_\_ (21) \_\_ in half, with those who spent between \$80 and \$99 per month, on average, on outsourcing chores reporting a higher degree of life satisfaction.

106. (a) personal (b) common (c) right  
(d) specific (e) strict
107. (a) unite (b) procure (c) store  
(d) gather (e) increase
108. (a) recorded (b) posted (c) procrastinated  
(d) estimated (e) fabricated
109. (a) take (b) spend (c) apply  
(d) waste (e) draw
110. (a) theory (b) planning (c) effort  
(d) study (e) opinion
111. (a) get (b) deal (c) split  
(d) assign (e) quit

**Directions (112-115):** 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 is then select option (e) as your choice.

112. Many (A) **countries** are keeping their money in (B) **overseas** banks because the tax laws are less (C) **stringent** in foreign (D) **Americans**.  
(a) A - B (b) B - C (c) C - D  
(d) A - D (e) No error
113. The Bandipur Tiger (A) **Reserve** on the Karnataka border (B) **spilling** some of our (C) **richest** wildlife areas (D) **contains** over into Tamil Nadu and Kerala.  
(a) A - B (b) B - D (c) C - D  
(d) A - C (e) No error
114. United Voice, which represents (A) **government**, has called for the Queensland (B) **paramedics** to fund the (C) **positions** after the latest Queensland Health data showed (D) **ramping** was increasing.  
(a) A - B (b) B - C (c) C - D  
(d) A - C (e) No error
115. Eighteen per cent of the world's (A) **population** lives in India, but the country (B) **global** 26 per cent of the (C) **bears** disease (D) **burden** due to air pollution.  
(a) A - B (b) B - C (c) C - D  
(d) A - C (e) No error

**Directions (116-120):** Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph and then answer the questions given below.

- (A) Other resources are also heavily over-exploited in many of these regions. Depletion is causing economic and social distress in rural areas, though the manifestation is different in different settings.
- (B) The government finance for well digging and pump installation with capital subsidies, massive rural electrification and pervasive energy subsidies all have enabled this process to aggravate.
- (C) Groundwater is the backbone of rural economy in both semi-arid and arid regions of India.
- (D) In the alluvial areas of Punjab, Rajasthan and Gujarat, water tables keep falling, increasing the cost of pumping.
- (E) The past four decades have witnessed an explosion in well numbers in these regions for irrigated farming.
- (F) Moreover, in the hard rock areas of AP, Telangana, Karnataka and Maharashtra, there are rampant well failures and seasonal depletion.

116. Which among the following becomes the **FIRST** statement of the paragraph after rearrangement?  
 (a) A (b) B (c) E  
 (d) F (e) C
117. Which among the following becomes the **FOURTH** statement of the paragraph after rearrangement?  
 (a) A (b) B (c) E  
 (d) F (e) C
118. Which among the following becomes the **LAST** statement of the paragraph after rearrangement?

- (a) A (b) B (c) E  
 (d) F (e) C

119. Which among the following becomes the **SECOND** statement of the paragraph after rearrangement?

- (a) A (b) B (c) E  
 (d) F (e) C

120. Which among the following becomes the **THIRD** statement of the paragraph after rearrangement?

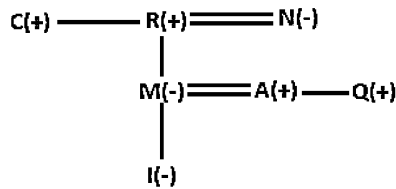
- (a) A (b) B (c) E  
 (d) F (e) C

## Solutions

### REASONING ABILITY

**Directions (1-5):**

Person	Startups	Colours/Fruits
R	Mobile enterprises	Red
Q	Garments	Banana
A	Mobile enterprises	Litchi
C	Garments	Pink
I	Arms & sons	Yellow
M	Cement Agency	Apple
N	Arms & sons	Orange



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

**Directions (6-10):** Logic: In the given Input-Output the numbers are arranged from both the ends simultaneously. In first step- Lowest number is arranged from the left end and highest number is arranged from the right end. In second step- 2nd lowest number is arranged from the left end and 2nd highest number is arranged from the right end and so on... Also while arranging the numbers, the numbers which are arranged from both end are replaced by the addition of the digits of that number.

**Input:** 57 21 16 49 23 29 36 42 45 51

**Step I:** 7 21 49 23 29 36 42 45 51 12

**Step II:** 3 7 49 23 29 36 42 45 12 6

**Step III:** 5 3 7 29 36 42 45 12 6 13

**Step IV:** 11 5 3 7 36 42 12 6 13 9

**Step V:** 9 11 5 3 7 12 6 13 9 6

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

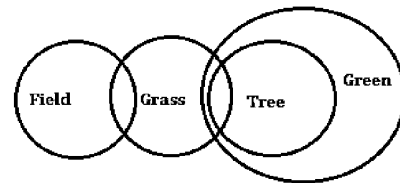
**Direction (11-15):**

Floor	Persons
6	G Black
5	D White
4	F Blue
3	B Pink
2	C Grey
1	E Red
0	A Orange

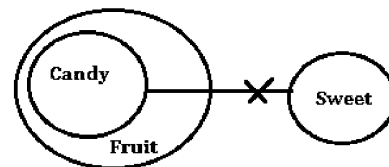
11. (e); 12. (b); 13. (c);  
 14. (e); 15. (d);

**Direction (16-18):**

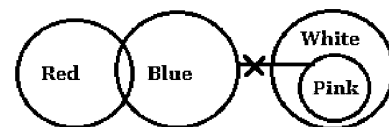
16. (a);



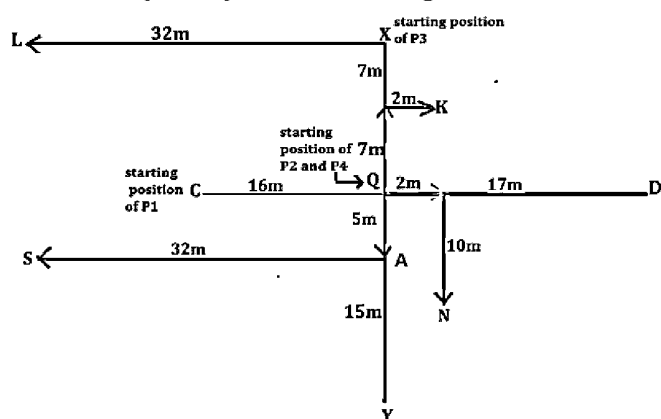
17. (b);



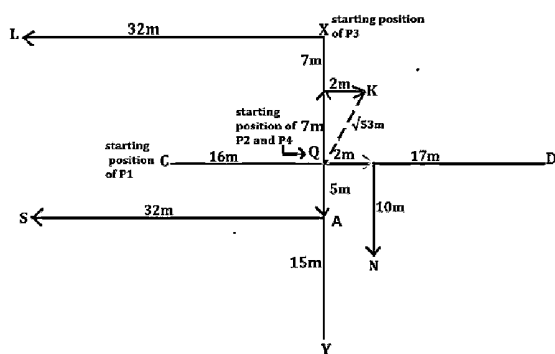
18. (a);



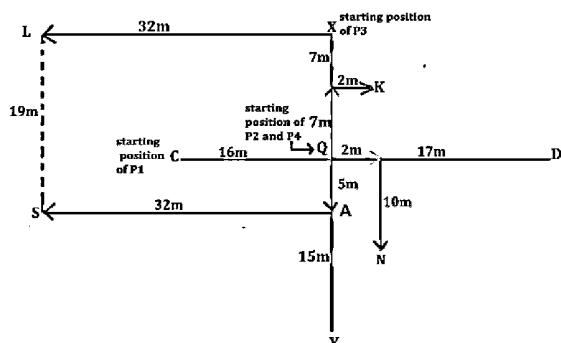
Directions (19-23): The final arrangement is:



19. (a);



20. (c);



21. (e);

22. (c);

23. (b);

Direction (24-25):

24. (c);

196	615	254	431	329
961	651	542	431	932

25. (b);

196	615	254	431	329
691	516	452	134	923

Direction (26-30):

S	D	Q	B
70	30	63	55
15	50	40	25
A	R	P	C

26. (c);

27. (d);

28. (b);

29. (e);

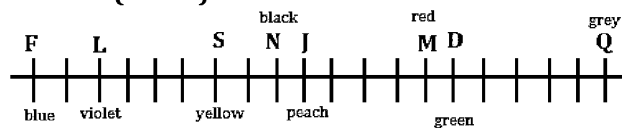
30. (b);

31. (e); Only (e) can be inferred from the given statement as it is given that HIV-infected children have lower neuropsychological test scores thus reflecting reduced memory span, attention deficit.

32. (a); From the given statement it is clearly concluded that as the company's profit is decreasing and the employee who are resigning get the better opportunities but it cannot be concluded as nothing is mentioned about the technology used in the products of Company A.

33. (a); Only (I) follows as it is a feasible measure to sustain the level of NPA.

Direction (34-38):



34. (d);

35. (c);

36. (a);

37. (e);

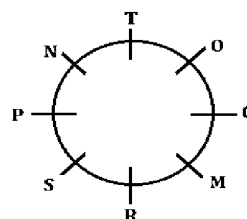
38. (e);

39. (e); (a) does not follow because the NCR phenomenon can't be extrapolated to "most of the big cities". (b) and (d) are probable consequences. (c) shows us the other side. (e) follows from the mention of "slump in home sales" and scope for "price correction".

40. (e); Decline in profit will lead to closure of the company, so option a) is not valid. Establishment of new branches by the MNCs will lead to upsurge in the hiring activities. At the same time, maintenance of positive growth rate by the Indian MNC companies will help them expand their business. So only B) and C) follow.

Directions (41-45):

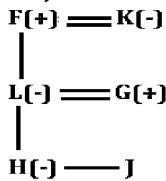
41. (e); From I and II it is clear that N sits opposite to M.



42. (e); From I and II it is clear that U gets the lowest rank.  
 $V > X > W > Y > Z > U$

43. (d); From I and II it is not clear that who **sits between E and K**.

44. (d); From I and II J's gender is not clear so we can't define how J is related to F.



45. (b); From II it is clear that D is the lightest.  
 $B > C > A > E > D$

**Directions (46-50):**

Month	Person 1	Person 2	Person 3
January	R (11)	U (29)	P (30)
June	T (25)	V (26)	S (27)
December	X (16)	W (18)	Q (19)

46. (c);                      47. (e);                      48. (d);  
 49. (c);                      50. (e);

**Direction (51-55):**

51. (a); I.  $R < Q$  (True) II.  $F > T$  (False)  
 52. (e); I.  $D = W$  (True) II.  $D > E$  (True)  
 53. (c); I.  $W < F$  (False) II.  $Q = F$  (False)  
 54. (a); I.  $O > K$  (True) II.  $L > D$  (False)  
 55. (b); I.  $G > Z$  (False) II.  $C > U$  (True)

**Direction (56-60):**

Words	Codes
very	sd
heavy	cg
rain	rv
weight	jn
boxer	yh
high	az

56. (b);                      57. (d);                      58. (b);  
 59. (c);                      60. (d);

## QUANTITATIVE APTITUDE

**Directions (61-65):-**

Here, total number of persons who play cricket=43 % of 800=344

total number of persons who play football=52.5 % of 800=420

total number of persons who play Hockey=55 % of 800=440

number of persons who play both cricket and football but not Hockey=96

number of persons who play both cricket and hockey but not football=100

number of persons who play both hockey and football but not cricket=88

number of persons who play all the three sports=60

number of persons who play only cricket=344

$- (96+100+60) = 88$

number of persons who play only football

$= 420 - (96+88+60) = 176$

number of persons who play only hockey

$= 440 - (100+88+60) = 192$

61. (b); number of persons who plays at least 2 sports=100+96+88+60= 344

Required percentage= $\frac{344}{800} \times 100 = 43\%$

62. (c); number of persons who play only football =420 – (96+88+60) =176

number of persons who play only hockey =440 – (100+88+60)= 192

Required difference= 192 -176 =16

63. (d); Number of persons who plays neither football nor cricket=800 –(88+100+60+96+88+176) =800 -608 =192

64. (a); number of persons who play both cricket and football but not Hockey=96

number of persons who play both hockey and football but not cricket=88

Required ratio= $\frac{96}{88}=12:11$

65. (d); number of persons who play only football = 420 –(96+88+60) =176

number of persons who play both cricket and hockey but not football=100

Required percentage= $\frac{176-100}{100} \times 100 = 76\%$

66. (d); ? % of 25% of 40% of (144 + 6) = 2.25

? % of 25% of 40% of 150 = 2.25

? % of 25% of 60 = 2.25

? % of 15 = 2.25

? ≈ 15

67. (a);  $(8)^3 + (8)^2 = -100 + (?)^2$   
 $512 + 64 + 100 = (?)^2$   
 $? \approx 26$

68. (e);  $\frac{33 \times 42 \times 5}{11 \times 15} + 14 = ? \% \text{ of } 280$   
 $? \approx 20$

69. (d);  $97 + 997 - 100 + 1000 + 6 = 400 \times ?$   
 $? \approx 5$

70. (e);  $10\% \text{ of } 300 = (?)^3 + (?)$   
 $30 = (?)^3 + (?)$   
 $? \approx 3$

71. (e); Let the current age of father and mother be 'x' yrs and 'y' yrs respectively.  
Then son's present age =  $(x - 28)$  yrs  
Then daughter's present age =  $(y - 26)$  yrs  
Atq  
 $(x + y + x - 28 + y - 26) = 130$   
 $(x + y) = 92 \dots (i)$   
Again after 3 yrs  
 $(x + 3 + y + 3 + x - 25) = 123$   
 $(2x + y) = 142 \dots (ii)$   
On solving the above equation we get  $y = 42$  years.  
Mother's present age = 42 yrs.

72. (b); SP of article (to customer) =  $3000 - 300 = \text{Rs. } 2700$   
Marked price =  $2700 \times \frac{100}{90} = \text{Rs. } 3000$   
CP of article =  $2700 \times \frac{100}{120} = \text{Rs. } 2250$

73. (d); speed =  $1 \times \frac{5}{18} \times 60 = \frac{50}{3} \text{ m/min}$   
Time taken to reach station (time to catch train) =  $\frac{500}{\frac{50}{3}} = 30 \text{ min}$   
Time left to catch train =  $30 - 4 - 4 = 22 \text{ min}$   
In this time, he is going back to home and has to reach station  
Total distance to be covered =  $500 \text{ m}$   
Required speed =  $\frac{500}{22} \times \frac{60}{1000} = 1.36 \text{ kmph}$

74. (c); let radius be  $r \text{ cm}$   
 $132 = 2 \times \frac{22}{7} r \Rightarrow r = 21 \text{ cm} \Rightarrow l = 42 \text{ cm}$   
Let length, breadth of rectangle be  $l, b \text{ cm}$  respectively  
Square is attached along breadth of rectangle, edge of square =  $b \text{ cm}$   
Increase in area = area of square  
 $b^2 = 144 \Rightarrow b = 12 \text{ cm}$   
Area of rectangle =  $lb = 42 \times 12 = 504 \text{ cm}^2$

75. (d); We do not know the number of girls in reasoning.  
So, we can't determine the no. of boys in reasoning for that years.

76. (b); Required percentage  
 $\Rightarrow \frac{40,000}{400,000} \times 100 = 10\%$

77. (e); Required number of students  
 $\Rightarrow (5 + 35 + 15 + 15 + 20 + 5) \times 1000 = 95000$

78. (d); Required percentage  
 $\Rightarrow \left( \frac{15+30}{55+85} \right) \times 100$   
 $\Rightarrow \frac{45}{140} \times 100 \approx 32\%$

79. (a); Required ratio  
 $\Rightarrow (25 + 30) : (5 + 20)$   
 $\Rightarrow 55 : 25 = 11 : 5$

80. (c); Total milk in mixture =  $384 \times \frac{15}{32} = 180 \text{ liters}$   
Total water in mixture =  $384 \times \frac{17}{32} = 204 \text{ liters}$   
ATQ -  
 $\frac{180 - X \times \frac{15}{32} + (X - 14)}{204 - X \times \frac{17}{32} + (X - 34)} = \frac{1}{1}$   
 $180 - X \times \frac{15}{32} + (X - 14) = 204 - X \times \frac{17}{32} + (X - 34)$   
 $\frac{X}{16} = (24 - 20)$   
 $X = 64 \text{ liters}$   
Total final mixture =  $180 - 64 \times \frac{15}{32} + (64 - 14) + 204 - 64 \times \frac{17}{32} + (64 - 34)$   
 $= 200 + 200 = 400 \text{ liters}$   
Required percentage =  $\frac{180}{400} \times 100 = 45\%$

81. (a); Ratio of profit of Anurag & Ravi after one year  
 $= (2000 \times 8 + 2400 \times 2) : (1600 \times 12)$   
 $= 208 : 192$   
 $= 13 : 12$   
Let total profit =  $25P \text{ Rs.}$   
Share of Ravi =  $12P$   
Equivalent CI of two years at  $20\% = 20 + 20 + \frac{20 \times 20}{100} = 44\%$   
ATQ -  
 $12P \times \frac{144}{100} = 6912$   
 $P = 400 \text{ Rs.}$   
Profit share Anurag =  $10000 \times \frac{13}{25} = 5200 \text{ Rs.}$

82. (b); Let the efficiency of a man be  $m \text{ units/day}$  and efficiency of a woman be  $w \text{ units/day}$   
ATQ  
 $(8m + 10w) \times 15 = (10m + 18w) \times 10$   
 $\frac{m}{w} = \frac{3}{2}$   
Total work =  $(8 \times 3 + 10 \times 2) \times 15 = 660 \text{ units}$   
Work done in 10 days =  $(4 \times 3 + 5 \times 2) \times 10 = 220 \text{ units}$   
Let the number of more women required be  $x$   
Then  $2 \times (5 + x) \times 11 = 440$   
 $x = 15$

83. (d); ATQ -

$$2(A + B) = 6C$$

$$A + B = 3C$$

$$\text{Also given, } A + B + C = \frac{1}{9}$$

$$4C = \frac{1}{9}$$

$$C = 36 \text{ hours}$$

84. (a); ATQ -

$$2304 = 1600 \left(1 + \frac{R}{100}\right)^2$$

$$\frac{48}{40} = \left(1 + \frac{R}{100}\right)$$

$$R = 20\%$$

$$\text{New rate} = (20 - 8) = 12\%$$

$$\text{Required interest} = \frac{1600 \times 12 \times 2}{100} = 384 \text{ Rs.}$$

85. (c); Let total male & female registered voters in village -X be 10a & 10b respectively.

ATQ,

$$10a - 10b = 2000$$

$$a - b = 200 \quad \dots (i)$$

And,

$$7a + 4.5b = 6000 \quad \dots (ii)$$

On solving (i) & (ii), we get:

$$a = 600, b = 400$$

So, total registered voters in village - X = 10a +

$$10b = 10 \times (600 + 400) = 10000$$

86. (b); Missing number = 450

Pattern of series -

$$\begin{array}{ccccccccc} 120 & 60 & 60 & 90 & 180 & \boxed{450} \\ \hline & \times 0.5 & \times 1 & \times 1.5 & \times 2 & \times 2.5 \end{array}$$

87. (d); Missing number = 178

Pattern of series -

$$\begin{array}{ccccccccc} \boxed{178} & 190 & 210 & 238 & 274 & 318 \\ \hline & +12 & +20 & +28 & +36 & +44 \\ \hline & +8 & +8 & +8 & +8 \end{array}$$

88. (e); Missing number = 130

Pattern of series -

$$\begin{array}{ccccccccc} 112 & \boxed{130} & 166 & 238 & 382 & 670 \\ \hline & +18 & +36 & +72 & +144 & +288 \\ \hline & \times 2 & \times 2 & \times 2 & \times 2 \end{array}$$

89. (a); Missing number = 354

Pattern of series -

$$\begin{array}{ccccccccc} 138 & 210 & 66 & 282 & -6 & \boxed{354} \\ \hline & +72 & -144 & +216 & -288 & +360 \\ \hline & 72 & 72 & 72 & 72 \end{array}$$

90. (b); Missing number = 110

Pattern of series -

$$\begin{array}{ccccccccc} 72 & 80 & 71 & 135 & \boxed{110} & 326 \\ \hline & +8 & -9 & +64 & -25 & +216 \\ \hline & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ & (2)^3 & (3)^2 & (4)^3 & (5)^2 & (6)^3 \end{array}$$

## ENGLISH LANGUAGE

91. (e); The correct answer here is option (e). Option (a) is mentioned in first paragraph of the passage. Second and third options can be deduced from paragraph 2 and 3 .Option (d) is given in paragraph 4 .Hence all of the given options are correct.

92. (c); The appropriate option is (c). Refer to paragraph 2 where it is stated that top talent outside has many options of public service. Therefore the government must proactively identify and approach executives with the desired skills and experience. *"Precisely because the competition for talent is so intense, most successful corporations — even those regarded as highly desirable employers — follow this strategy."*

93. (d); The most suitable choice here is option (d). The answer can be deduced from paragraph 1 itself where it is mentioned in the first line that most governments and CEO's are struggling with the challenge of getting the right leadership talent. Rest all of the options are wrong in context of the passage.

94. (e); Option (e) is the appropriate choice here. The answer can be inferred from paragraph 3 where the text is quoted as, "Government bureaucracy can be tough on outsiders; it is essential to have the ability to persevere in the face of constant pulls and pressures and aligning multiple stakeholders".

- 95. (b);** Option (b) is the correct choice here. Refer to paragraph 3 , second last line , *"More focused interviews should be supplemented with extensive referencing with finalist candidates. This combination of data will provide insight into a candidate's character, integrity and moral compass — all critical qualities for government roles."* This has been mentioned in the context of how one-on-one or two-on-one interviews allow for a much more meaningful exploration of key points of a candidate's career, their mindset and approach rather than appearing before a section panel of three to five interviewers while hiring.
- 96. (c);** Grappling means engage in a close fight or struggle without weapons.  
Contending means the same.  
Unfettering means releasing from restraint or inhibition.  
Extricating means free from a constraint or difficulty.
- 97. (b);** Proactively means by taking action to control a situation rather than just responding to it after it has happened.  
Preemptively means taken as a measure against something possible, anticipated, or feared. Hence option (b) is the answer.  
Inertly means sluggish in action or motion.  
Retroactively means with effect from a date in the past.  
Irresolutely means lacking in resolution; undecisive.
- 98. (b);** Resilience means the capacity to recover quickly from difficulties. Pliability means flexibility which means the same.  
Obduracy means of the quality of being stubborn.  
Frailty means the condition of being weak and delicate.  
Tenacity means the quality or fact of being very determined; determination.
- 99. (e);** Primed means something prepared already for a situation.  
All words in the options are the synonyms of the given word.  
Only option (e) is the answer as impulsive means acting or done without forethought.
- 100. (c);** Leveraging means use something to maximum advantage.  
Clouting means hitting someone or something hard.  
Esteeming means respecting and admiring.  
Dissuading means persuade (someone) not to take a particular course of action.  
Hence only option (c) is the answer.
- 101. (c);** There is grammatical error in part (c) of the given sentence. The use of 'result' here is incorrect because the subject of the given sentence is 'Infection' which is singular, so the verb should also be in its singular form. So the correct verb should be 'results'. Hence, the correct answer choice is (c)
- 102. (e);** There is no error in the given sentence. So, the correct answer choice would be (e) i.e. No error
- 103. (b);** There is grammatical error in the part (b) of the given sentence. The use of 'shoot' here is incorrect instead use 'shot' because in Passive Voice with 'be' we use V<sup>3</sup>. Hence, the correct answer choice would be (b)
- 104. (d);** There is grammatical error in part (d). Replace 'start' by 'started' as part (c) of the sentence uses 'could have'. "Have/has/had" is followed by V3 form of the verbs. Hence "could **have taken** ..... and **started**..." is the correct usage. So the correct answer choice is (d)
- 105. (c);** There is grammatical error in part (c) of the sentence. To make the given sentence correct Use 'when' in place of 'that' as "**Scarcely/Hardly**" is followed by '**when**' or '**before**' in a correct grammatical usage. Hence, the correct answer choice is (c)
- 106. (d);** 'specific' is the correct word that fits to the blank as the word before blank (narrow) is pointing to a particular question. All other options are irrelevant.
- 107. (e);** The phrase here is ".....their free time". We cannot use 'unite', 'procure', 'store' or 'gather' for time. Hence 'increase' is the correct word that fits in the blank and hence is the correct option.
- 108. (a);** The observations are given in the paragraph which suggested that data are recorded and not fabricated or procrastinated (means prediction) or posted. Hence 'recorded' is the correct word that completes the sentence.
- 109. (b);** The paragraph is about spending money for buying free time. Hence 'spend' is the correct word that justifies the sentence. All other options are irrelevant.
- 110. (d);** This is the paragraph telling us about the study of researchers. Hence 'study' is the word that is making the sentence meaningful.
- 111. (c);** A question has been asked before the blank and the response of that question is divided into half. Hence 'split' makes the sentence complete and meaningful.



**112. (d);** The given sentence is grammatically as well as contextually incorrect. To frame a meaningful sentence, 'Americans' and 'countries' should be interchanged. It should be noted that the preposition *in* is used to denote a place rather than persons. Therefore, "in foreign countries" is a more suitable phrase. Hence, by swapping words (A) and (D), option (d) becomes the most suitable answer choice.

**113. (b);** The given sentence is grammatically as well as contextually incorrect. To frame a meaningful sentence, 'spilling' and 'contains' should be interchanged. It should be noted that *spilling over* is a phrasal verb which means to reach or influence a larger area; spread. Hence, by swapping words (B) and (D), option (b) becomes the most suitable answer choice.

**114. (a);** The given sentence is grammatically as well as contextually incorrect. To frame a meaningful sentence, 'government' and 'parademics' should be interchanged. Hence, by swapping words (A) and (B), option (a) becomes the most suitable answer choice.

**115. (b);** The given sentence is grammatically as well as contextually incorrect. To frame a meaningful sentence, 'global' and 'bears' should be interchanged. Hence, by swapping words (B) and (C), option (b) becomes the most suitable answer choice.

**116. (e);** The correct sequence of sentences after the rearrangement is **CEBADF**. Hence, **option (e)** becomes the most suitable answer choice.

**117. (a);** The correct sequence of sentences after the rearrangement is **CEBADF**. Hence, **option (a)** becomes the most suitable answer choice.

**118. (d);** The correct sequence of sentences after the rearrangement is **CEBADF**. Hence, **option (d)** becomes the most suitable answer choice.

**119. (c);** The correct sequence of the sentences after the rearrangement is **CEBADF**. Hence, **option (c)** becomes the most suitable answer choice.

**120. (b);** The correct sequence of sentences after the rearrangement is **CEBADF**. Hence, **option (b)** becomes the most suitable answer choice.

