

IBPS RRB PO Mains 2020 (Memory Based Paper)

REASONING ABILITY

Directions (1-3): Read the following information carefully and answer the following questions.

Twelve persons are sitting in two parallel rows containing six persons each in a way that there is an equal distance between two adjacent persons. A, B, C, D, E, F sits in row 1 and faces north, P, Q, R, S, T, U sits in row 2 and faces south but not necessarily in the same order. Therefore, in this arrangement each member seated in a row faces another member of the other row.

A sits fourth to the left of B and one of them sits at corner. Only one person sits between Q and R. C sits third to the right of D. R faces C. More than two persons sit to the right of Q. Only one person sit between P and T and T does not sit near to Q. Two persons sit between U and S who does not face A.

- Who faces A?
(a) R (b) T (c) S
(d) The person sitting immediate right of U
(e) Both (b) and (d)
- Who sits exactly between R and U?
(a) T (b) P (c) S
(d) The one who faces B (e) None of these
- Four of the following five are alike in a certain way based on a group, which among the following does not belong to that group?
(a) R (b) T (c) B
(d) C (e) A



Directions (4-7): In these questions, relationship between different elements is shown in the statements. These statements are followed by three/four conclusions. Read the statements and then decide which of the following conclusions follow from the given statements.

- 4. Statements:** $P < S \geq I, S > F, M = F < B, Q = K = Y < L < B$
Conclusions: I. $Q < B$ II. $B \geq Q$
 III. $P > F$ IV. $M = B$

- (a) Only II and III follow
 (b) Only III and IV follow
 (c) Only I, II and III follow
 (d) Only I and IV follow
 (e) None of these

- 5. Statement:** $N \geq M > E = F > L < U, K \geq L < Q < R = A$
Conclusions: I. $N < A$ II. $K < E$
 III. $M > L$ IV. $M = L$

- (a) Only I follow
 (b) Only II and IV follow
 (c) Only III and IV follow
 (d) Only III follows
 (e) Only I and III follow

- 6. Statement:** $O > M = T > B > S = F, F > W < Q = U > Z$
Conclusions: I. $F < O$ II. $O \leq B$
 III. $S < U$ IV. $O > W$

- (a) Only I follow
 (b) Only I and IV follow
 (c) Only III and IV follow
 (d) Only II follows
 (e) Only I and III follow

- 7. Statement:** $Q = T \leq B > S = E, E > W > L > U = Z$
Conclusions: I. $Q = B$ II. $Q < B$
 III. $B < Z$ IV. $B > U$

- (a) Only I follow
 (b) Only I and IV follow
 (c) Only III and IV follow
 (d) Only Either I or II and IV follows
 (e) Only I and III follow

Directions (8-12): Each of the questions below consists of a question and three statements numbered I, II and III 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 given answer.

- (a) If the data in statement I and II are sufficient to answer the question.
 (b) If the data in statement II and III are sufficient to answer the question.
 (c) If the data in statement I and III are sufficient to answer the question.
 (d) If the data in all the statement I, II and III together are not sufficient to answer the question.
 (e) If all the statements I, II and III are necessary to answer the question.
8. Seven Boxes B1, B2, B3, B4, B5, B6, and B7 are kept one above another but not necessarily in the same order. What is the position of Box B7 with respect to Box B3, If Box B3 is not kept at the top?
- (I) Only two boxes are kept between Box B5 and Box B6, which is kept in top three places. Only one Box is kept between Box B2 and Box B3.
 (II) The number of boxes kept below Box B5 is same as the number of boxes kept above Box B2.
 (III) Box B7 is kept one of the places below Box B5. Box B2 is kept above Box B1.
- (a) If the data in statement I and II are sufficient to answer the question.
 (b) If the data in statement II and III are sufficient to answer the question.
 (c) If the data in statement I and III are sufficient to answer the question.
 (d) If the data in all the statements I, II and III together are not sufficient to answer the question.
 (e) If all the statements I, II and III are necessary to answer the question.
9. Seven persons A, B, C, D, E, F, and G are members of a family. How is C related to G?
- (I) A is married to the mother of D, who is the sister of C.
 (II) F is married to G, who is the father of E.
 (III) E is the nephew of the mother of C.
- (a) If the data in statement I and II are sufficient to answer the question.
 (b) If the data in statement II and III are sufficient to answer the question.
 (c) If the data in statement I and III are sufficient to answer the question.
 (d) If the data in all the statements I, II and III together are not sufficient to answer the question.
 (e) If all the statements I, II and III are necessary to answer the question.

10. What will be the code for 'candid'?
- (I) if 'candid moments are beautiful ' is coded as ' br, pa, ur, mo'
 (II) ' moments are cherished' is coded as ' , br, mo, zc,'
 (III) 'enjoy candid moments ' is coded as 'pa, br, ti,'
- (a) If the data in statement I and II are sufficient to answer the question.
 (b) If the data in statement II and III are sufficient to answer the question.
 (c) If the data in statement I and III are sufficient to answer the question.
 (d) If the data in all the statements I, II and III together are not sufficient to answer the question.
 (e) If all the statements I, II and III are necessary to answer the question.
11. Eight persons P, Q, R, S, T, U, V and W are sitting around a square table such that four of them sits at the corner and for of them sits in the middle of the sides facing the center, but not necessarily in the same order. How many persons sit between R and T, when counted from left of T?
- (I) Three persons sit between P and Q, who does not sit at any corner. S does not sit at any corner of the table and also does not sit near to R.
 (II) W sits third to the left of Q and three persons sit between W and R.
 (III) V does not sit near to R and P.
- (a) If the data in statement I and II are sufficient to answer the question.
 (b) If the data in statement II and III are sufficient to answer the question.
 (c) If the data in statement I and III are sufficient to answer the question.
 (d) If the data in all the statements I, II and III together are not sufficient to answer the question.
 (e) If all the statements I, II and III are necessary to answer the question.
12. Eight persons P, Q, R, S, T, U, V and W are living in a building of eight floors such that the ground floor is numbered as 1 and the topmost floor is numbered as 8 but not necessarily in the same order. If T lives one of the floors below U, then how many persons live between W and T?
- (I) Only three persons live between Q and S, who lives above Q. S lives on an even number floor.
 (II) Only three persons live between P and U, who lives immediately below Q.
 (III) Only two persons live between S and W.
- (a) If the data in statement I and II are sufficient to answer the question.
 (b) If the data in statement II and III are sufficient to answer the question.
 (c) If the data in statement I and III are sufficient to answer the question.
 (d) If the data in all the statements I, II and III together are not sufficient to answer the question.
 (e) If all the statements I, II and III are necessary to answer the question.

Directions (13-14): Study the following information carefully and answer the questions given below:

Eight persons A, B, C, D, E, F, G, and H have different heights. B is taller than only one person. D is taller than E but shorter than A. The second tallest person height is 175cm. C is taller than A and F. F's height is 170cm. E is taller than G. The third shortest person height is 160cm. C is not the one who is tallest.

- 13.** If F is taller than A and the sum of height of A and E is 325cm, then what can be the possible height of D?
(a) 165cm (b) 152cm (c) 150cm
(d) 161cm (e) None of these
- 14.** If the Sum of height of C and H is 360cm and the sum of height of G and E is 325 cm, then what will be the sum of height of H and G?
(a) 355cm
(b) 350cm
(c) 340cm
(d) Both (a) and (b)
(e) Cannot be determined

Direction (15-16): In the following question a statement is given followed by three assumptions numbered as I, II and III. You have to read all the statements and decide which of the assumptions follows the mentioned in statement.

- 15. Statement:** "If you are intelligent, we are the right people for improving your performance." – An advertisement of a coaching institute.

Assumptions:

- I. Brilliant students prefer to join coaching classes.
II. Coaching classes help the students to improve their performance.
III. No other institute provides such coaching.
(a) Only I and II are implicit
(b) Only II and III are implicit
(c) Only I and III are implicit
(d) All are implicit
(e) None of these



- 16. Statement:** 'Several labour and industrial courts in this State have no proper premises. Vacancies of judges and stenographers are kept pending.' – A statement of a retired judge of State X.

Assumptions:

- I. Adequate number of staff and judges helps in the smooth functioning of the industrial and labour courts.
II. The state is not bothered about the condition of the labour and industrial courts.
III. Physical facilities of an office help in increasing efficiency of its employees.
(a) Only I and III are implicit
(b) Only II is implicit
(c) Only II and III are implicit
(d) All I, II and III are implicit
(e) None of these

Directions (17-18): Read the information carefully and answer the following questions.

Seven poles namely A, B, C, D, E, F, and G are installed in a society for electric wires. Pole D is 5m to the east of Pole A. Pole F is 8m to the west of Pole B, which is 15m south of Pole D. Pole E is 3m west of Pole A. Pole C is 15m to the east of Pole G, which is 12 m north of Pole A.

- 17.** What is the shortest distance between Pole A and Pole C?
(a) 11m (b) $\sqrt{369}$ m (c) $\sqrt{129}$ m
(d) 17m (e) None of the above
- 18.** What is the total distance between Pole F and Pole E?
(a) 11m (b) 13m (c) 16m
(d) 15m (e) None of the above

Directions (19-20): Study the following information carefully and answer the questions given below:

Eight persons A, B, C, D, E, F, G, and H are members of a family consisting of three generations and two married couples. Both H and B are male and C is the only brother of E, who is granddaughter of H. Neither A nor B is married to H, who has two children and one of them is unmarried. G is the paternal aunt of F, who is married to the mother of C.

- 19.** Who is Paternal Grandmother of C?
(a) H (b) A (c) B
(d) D (e) None of these
- 20.** How is B related to G?
(a) Niece (b) Brother (c) Nephew
(d) Father (e) None of these

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

Eight boxes P, Q, R, S, T, A, B, and C are kept one above another, each box contains different products viz. Shampoo, Soaps, Detergent, Oils, Creams, Spices, Biscuits and Toffees but not necessarily in the same order.

Only two boxes are kept between box of Toffee and the box of Shampoo and both boxes are kept above the box of oils. Box R is kept just below the box of Detergent. Box C is kept above Box S but below Box T. Three boxes are kept between Box A, which doesn't contain Spices and Creams and Box P, which doesn't contain Biscuits and Toffee. The box which contains Soaps is kept just below Box P. Only three boxes are kept between the box of Soaps and the box of Oils. Box Q is kept just below the box of oils. Two boxes are kept between the box of Biscuits, which is kept at the top and Box B, which doesn't contains Soaps and Spices.

21. Which Box Contains Shampoo?

- (a) Box S (b) Box A (c) Box B
(d) Box T (e) None of these

22. How many Boxes are kept between Box Q and the box which contains Soaps?

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

23. The number of boxes kept below P is same as above_____?

- (a) T (b) A (c) B
(d) R (e) None of these

24. Choose the incorrect combination from the given alternatives?

- (a) P- Shampoo (b) R- Oils (c) Q- Spices
(d) B- Toffee (e) All are incorrect

25. In a certain way if C is related to Shampoo and S is related Creams, then in the same pattern R is related to_____?

- (a) Toffee (b) Spices (c) Biscuits
(d) Oils (e) None of these

Directions (26-30): Read the following information carefully and answer the following questions.

Eight persons P, Q, R, S, T, U, V, and W are sitting around a circular table facing the center. they all have different age viz. 15 years, 13 years, 35 years, 36 years, 60 years, 28 years, 72 years, and 59 years but not necessarily in the same order. S and P are immediate neighbors of each other but neither of them is more than 36 years old. U is not an immediate neighbor of T. W's age is not 60 years and also he doesn't sit immediate left of R. P is one year younger to S. W is younger to R. Q, whose age is a multiple of 7 sits second to the left of R and three persons sit between R and

P. Only one person sit between R and the one who is age is 60 years. The one whose age is 59 years sits third to the left of the one whose age is 60 years. Three persons sit between T, who is the eldest person and the one whose age is 59 years.

26. Who sits third to the left of the one who age is 59 Years?

- (a) S (b) T (c) U
(d) W (e) P

27. Who among the following sits opposite to the one who sit third to the left of V?

- (a) T (b) Q (c) P
(d) R (e) None of these

28. How many maximum persons sit between the youngest and the oldest person when counted from the left of the youngest person?

- (a) One (b) Two (c) Three
(d) Four (e) Five

29. Which of the following statement is true about Q?

- (a) Q sits immediate left of U
(b) Q sits second to the right of the one whose age is perfect square
(c) Q faces V
(d) All are true
(e) Both (a) and (c)

30. Four of the following five are alike in a certain way based on a group, which of the following does not belong to that group?

- (a) Q - 35 Years (b) R - 15 Years (c) U - 59 Years
(d) V - 60 Years (e) S - 36 Years

31. "Dowry" which is illegal in India but it is entertained very pleasantly by the family members and grooms itself. They take it as their birth right. There is a mindset in society that women have to take care of kitchen, babies and home and men have to see their office only. But the bitter truth is that a woman gives many sacrifices in comparison to men in persuasion of society.

Which of the following is not in line according to above statement?

- I. There should be awareness program about dowry which should be regulated in the society on timely basis.
II. There should be law of death penalty for rape cases which is a must do step in India.
III. It is also believed that women should follow the customs that are made by the society for better civilization.

- (a) Only III (b) Both I and III (c) Both II and III
(d) Only II (e) None of these

Directions (32-35): Read the following information carefully and answer the following questions.

Nine persons A, B, C, D, E, F, G, H, and I are born in nine different year viz. 1976, 1978, 1980, 1984, 1988, 1991, 1995, 2001, 2004 but not necessarily in the same order. (The age of persons will be calculated with respect to the year 2021.) They all have different occupation viz. Driver, Plumber, Carpenter, Painter, Singer, Nurse, Banker, Doctor, and Engineer but not necessarily in the same order.

F is younger than G but older than H, who is not a nurse. The one whose age is 41 years is not a singer. The sum of age the plumber and C is 62 years. Only three persons are younger to B, who is a driver. The one who is the second oldest is Carpenter. D's age is not 26 years. E was born in a year after B, but he was not born in a leap year. Only two persons was born between E and A. The sum of age of D and the one who is Doctor is 67 years. The difference between the age of Nurse and the carpenter is 6 years. A is not a Nurse. I was not born in 1984 and he is neither a plumber nor a carpenter. D is neither an Engineer nor a Banker. The sum of age of Painter and Singer is 61 years. A is not an Engineer.

32. What is the sum of the age of the Engineer and the Plumber?
 (a) 62 years (b) 63 years (c) 71 years
 (d) 65 years (e) None of these
33. How many persons are younger than A?
 (a) Three (b) Four (c) One
 (d) Five (e) Two
34. In which year F was born?
 (a) 1976 (b) 1980 (c) 1978
 (d) 1984 (e) None of these
35. Four of the following five are alike in a certain way based on a group, which among the following does not belong to that group?
 (a) Plumber (b) Engineer (c) Carpenter
 (d) Painter (e) Banker



Directions (36-38): Read the following information carefully and answer the following questions.

Eight persons P, Q, R, S, V, X, Y, and Z are sitting in a straight row such that some of them are facing north and some of them are facing south direction but not necessarily in the same order. They all have different amount of money with them viz. Rs29, Rs49, Rs64, Rs36, Rs71, Rs67, Rs.32, and Rs43 but not necessarily in the same order.

Y and X faces the opposite direction as Z, who has 43 rupee. R has more money than P, who sits near to Q. X has less money than P. Immediate neighbor of X faces the same direction. Y does not sit near to V. The one who has the highest amount of money sits third to the left of V. Neither V nor the one who has highest amount of money sits at the corner. The immediate neighbor of the one who has highest money faces south direction. Three persons sits between the one who has Rs67 and the one who has the least amount of money and one of them sits at the right corner of the row. The one who has the least amount of money is not an immediate neighbor of the one who has the highest amount of money. V has 36 rupees. Q neither have the highest nor the lowest amount money. Z sits third to the right of Q. Y and X are immediate neighbors of Z. The number of persons sitting between Y and V is same as the number of persons sitting between V and S, who does not face south. The number of persons sitting to the left of V is same as the number of persons sitting to the right of Q.

36. What is the difference of the money persons sitting at the corner have?
 (a) Rs31 (b) Rs38 (c) Rs33
 (d) Rs35 (e) None of these
37. What is the position of Z, with respect to P?
 (a) Second to the left
 (b) Second to the right
 (c) Third to the right
 (d) Either (a) or (b)
 (e) None of these
38. How many persons have less money than P?
 (a) One (b) Two (c) Three
 (d) Five (e) None of these
39. **Statement:** Should all the students graduating in any discipline desirous of pursuing post-graduation of the subjects of their choice be allowed to enroll in the post-graduate courses?

Arguments:

- I. Yes. The students are the best judge of their capabilities and there should not be restrictions for joining post-graduate courses.
- II. No. The students need to study relevant subjects in graduate courses to enroll in post-graduate courses and the students must fulfill such conditions.

III. No. There are not enough institutes offering post-graduate courses which can accommodate all the graduates desirous of seeking post-graduate education of their own choice.

- (a) None is strong
- (b) Only I and II are strong
- (c) All are strong
- (d) Only I and III are strong
- (e) None of these

40. The argument about whether demonetization was good or bad for the economy refuses to die down even a year after the event. While one can endlessly debate, with very little data, on whether the ban on high-value

currency notes dealt a body blow to terrorism, corruption and counterfeiting, one area in which its impact can be quantified with data is tax compliance. In FY18, net collections increased by 17.1%.

Which of the following can be postulated from the given statement?

- I. Counterfeiting of notes was one of the major concern for Government of India.
 - II. Many economists has termed it wrong as it has impact badly on the weaker section of the society.
 - III. There has been revamp in the percentage increase of direct tax with respect to indirect tax.
- (a) Only III
 - (b) Both I and III
 - (c) Both II and III
 - (d) Only II
 - (e) None of these

QUANTITATIVE APTITUDE

Direction (41 – 45): Given below data shows total number of computers (Laptops, Macbook & Desktop) manufactured by four different companies. Read the data carefully and answer the questions.

Companies	Total computers manufactured	% Of Laptops vehicles manufactured	% Of Macbook vehicles manufactured
A	800	20%	40%
B	960	25%	45%
C	1020	30%	40%
D	840	25%	50%

41. Total number of Macbook manufactured by A & Laptops manufactured by B together are what percent more than total number of Macbook manufactured by D?

- (a) $30\frac{1}{3}\%$
- (b) 25%
- (c) 30%
- (d) $33\frac{1}{3}\%$
- (e) 40%

42. Find the ratio of total number of Desktop manufactured by C & D together to total number of Laptops manufactured by A & B together?

- (a) 127 : 100
- (b) 139 : 100
- (c) 109 : 100
- (d) 119 : 100
- (e) 129 : 100

43. Average of Macbook manufactured by B, C & E is 400 and total computers manufactured by E are 1040. If ratio of Macbook to Desktop manufactured by E is 9 : 5, then find total number of Laptops manufactured by E?

- (a) 480
- (b) 440
- (c) 420
- (d) 360
- (e) 520

44. Total number of Desktop manufactured by B are what percent more than total number of Desktop manufactured by D?

- (a) $40\frac{1}{7}\%$
- (b) $42\frac{1}{7}\%$
- (c) $32\frac{1}{7}\%$
- (d) $37\frac{1}{7}\%$
- (e) $35\frac{1}{7}\%$

45. Find average number of Laptops manufactured by B, C & D?

- (a) 232
- (b) 242
- (c) 252
- (d) 272
- (e) 264

Directions (46-50): The following questions are accompanied by two statements (I) and (II). You have to determine which statements(s) is/are sufficient/necessary to answer the questions.

- (a) Statement (I) alone is sufficient to answer the question but statement (II) alone is not sufficient to answer the questions.
- (b) Statement (II) alone is sufficient to answer the question but statement (I) alone is not sufficient to answer the question.
- (c) Both the statements taken together are necessary to answer the questions, but neither of the statements alone is sufficient to answer the question.
- (d) Either statement (I) or statement (II) by itself is sufficient to answer the question.
- (e) Statements (I) and (II) taken together are not sufficient to answer the question.

46. The length of a rectangle is $14\frac{2}{7}\%$ more than that of breadth of Rectangle. find the area of rectangle?

- I. Perimeter of rectangle is equal to perimeter of an Equilateral Triangle whose area is $25\sqrt{3}$ cm².
- II. length of rectangle is 2 times the side of a Square whose perimeter is 16 cm.

47. What is the maximum marks in an exam?

- I. Veer scored 25% more than the minimum passing marks but he scored only 50% marks in the exam.
- II. Aayush scored only 60 marks in the exam which is 50% more than the passing marks.

48. A seller marked up the price of an article 50% above cost price and give two successive discounts. Find the aggregate percentage of discount.

- Seller make the Aggregate profit of 14.75%
- M.R.P. of the Article is Rs. 750 and it sold in Rs. 73.75 more than the cost price.

49. What is the value of $(2^x + y^2)$

- $x + y = 7$
- the difference between x and y is 1.

50. What will be profit share of Ankit?

- Ankit Invest Rs. 1600 for 8 months and Satish joined him after three months from start of the business months with capital of Rs. 1200.
- Satish got Rs. 630 as profit share.

51. Equal amounts of Rs. ____ are invested in two schemes A and B for 6 years and 8 years respectively. Scheme A offers interest at the rate of 12% per annum and scheme B offers interest at the rate of 8% p.a. The difference between the interests earned (simple interest) is Rs.1280.?

- 16,000
- 16,500
- 17,000
- 18,000
- 20,500

52. A boat covers a distance of $\frac{11}{4}$ km in upstream in 11 minutes. The ratio between speed of current to downstream speed is 1 : 7 and boat covers ____ km distance in downstream in 52 min?

- 16.5
- 15.6
- 18.2
- 17.2
- 14.2

53. Marked price of an article is 25% more than its selling price and the profit earned on selling the article is also 25%. The difference between the profit and the difference between cost price & marked price is Rs 200, then find at what price article should be sell to make a profit of 37.5%?

- Rs 500
- Rs 880
- Rs 600
- Rs 700
- Rs 800

54. The investment of A is 48% less than that of B. After four months, A increases his investment by $\frac{2}{13}$ th of the initial investment, B withdraws 50% of the initial investment and C makes an investment. If at the end of the year profit share of C is twice of the difference between profit share of A and B, then find investment of C is what percent of initial investment of B?

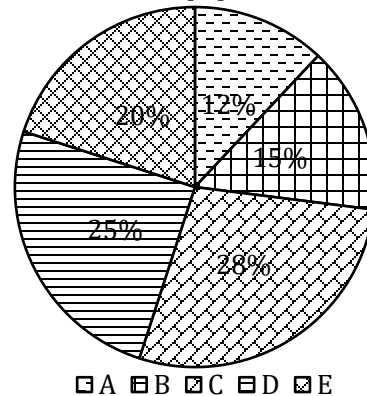
- 24.5%
- 21%
- 42%
- 35%
- 28%

55. A bag contains 18 number of balls out of which ____ are plastic balls and rest are leather balls. If the two balls are drawn from the bag at random, then the probability of getting a plastic and leather ball is ____.

- 10, 80/153
 - 8, 40/153
 - 6, 8/17
- All I, II and III
 - Only I and III
 - Only I
 - Only II
 - Only I and

Direction (56-60): Given below pie chart shows percentage distribution of total literate people in five different villages and table shows percentage of literacy rate in these five villages out of total population and number of people who have post graduate degree. Read the data carefully and answer the questions.

Total literate population = 6000



Villages	literacy rate (in %)	Number of people who have post graduate degree
A	60%	440
B	75%	500
C	80%	880
D	60%	700
E	50%	360

Note: People who have under graduate degree in any village = (Total literate people – Number of people who have post graduate degree)

56. Find ratio of total people who have under graduate degree from C & D together to total illiterate people from A & E together?

- 40 : 43
- 40 : 41
- 20 : 23
- 20 : 21
- 10 : 11

57. If total number of people who have post graduate degree from all the village together is to be distributed in the degree pie chart, then find the central angle for people who have post graduate degree from A & D together.

- 100°
- 140°
- 220°
- 150°
- 180°

58. Total females in C are 25% less than that of males and 80% of total females in C are literate. If 50% of total males in C who are literate have post graduate degree, then find number of females who are literate but do not have post graduate degree from C?

- 120
- 220
- 420
- 360
- 320

59. Find average number of people who have not post graduate degree from A, D & E (consider only literate people)?

- 720
- 640
- 520
- 360
- 480

60. Total illiterate people from A & C together is what percent less than total illiterate people from E?

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

61. 'N' men can do a piece of work in 21 days working 8 hours each day. The number of days taken by N men is 70% of number of days taken by (N - 1) men, working 6 hours a day. Find in how many days (N + 3) men working ten hours in a day can complete the same work.

- (a) 14 days (b) 13 days (c) 15 days
(d) 16 days (e) 17 days

62. Train A running at speed of 64 km/hr. crosses a pole in 27 second and train B having crosses a man in 36 second. Ratio of speed of train A to B is 8 : 7 and both train running in opposite direction to each other, cross each other in ____ sec?

- (a) 28.2 sec (b) 36.2 sec (c) 31.2 sec
(d) 38.2sec (e) 39.2 sec

63. There are ____ students in a class and Average weight of class is 20 kg. When two new students include in the class average weight becomes 22 kg. After those four students left the class, whose weight half of the weight of two person included previously, then average weight of class becomes 25 kg.

- (a) 18 (b) 20 (c) 22
(d) 16 (e) 14

64. Ratio of age of man to his elder son is 20 : 9 and ratio of age of wife and her younger son is 3 : 1. If difference between age of elder and younger son is 6 years (Man

has only two son and no daughter) and average age of family is 26.5 year, then find the age of wife.

- (a) 24 (b) 36 (c) 40
(d) 38 (e) 28

65. A mixture contains liquids P and Q in which Q is 125% more than P. If 52 liters of the mixture is taken out and replaced with another liquid R, concentration of liquid P in the final mixture becomes 20%. What is the quantity of liquid Q in the final mixture?

- (a) 72.68 liters (b) 60.68 liters (c) 54.68 liters
(d) 48.86 liters (e) 66.86 liters

Direction (66 - 70): What will come in the place of question (?) mark in the following number series:

66. 12, 7, 8.5, 14.75, ?, 83

- (a) 30 (b) 24 (c) 32
(d) 36 (e) 48

67. 12, 78, 395, 1584, 4755, ?

- (a) 9512 (b) 9516 (c) 9518
(d) 9520 (e) 9580

68. 26, 53, 214, 1287, 10300, ?

- (a) 95000 (b) 100005 (c) 103000
(d) 101005 (e) 103005

69. 4187, 2857, 2129, 1787, 1663, ?

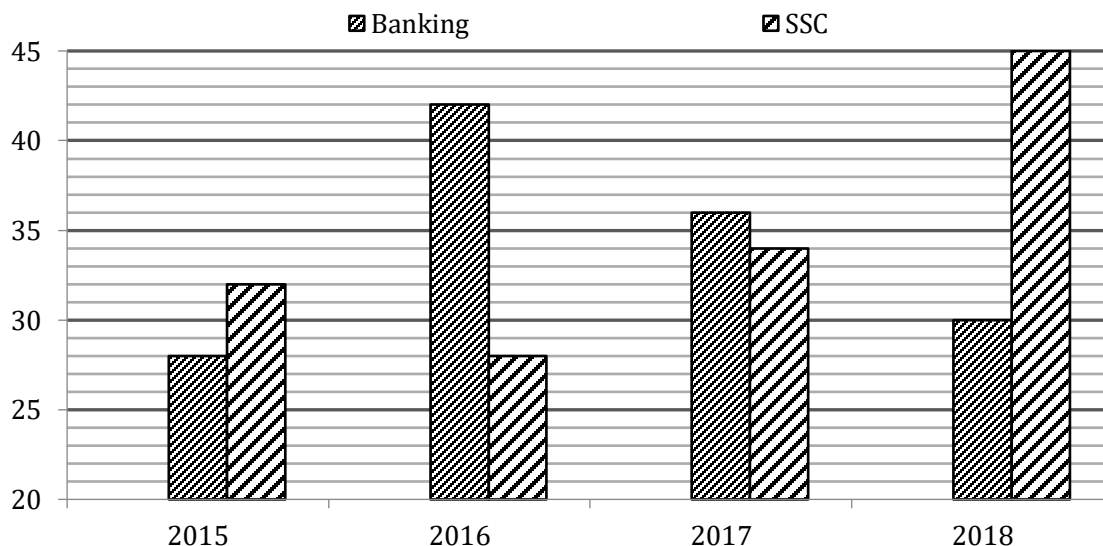
- (a) 1647 (b) 1642 (c) 1627
(d) 1637 (e) 1630

70. 27, 27, 54, 18, 72, ?

- (a) 19.6 (b) 16.8 (c) 18.8
(d) 12.8 (e) 14.4

Direction (71-75): The bar graph shows the number of students (in %) enrolled in two different courses out of three different courses in four different years of a coaching institution. Study the graph carefully to answer the following questions.

Note - Total number of Student enrolled in all three-video course in any year = Students enrolled for (SSC + Banking + Railway) video course



71. If total student in 2015 & 2017 are in ratio of 4:5 and the difference between no. of Railway students in these two years is 180 then find the difference between no. of Banking students in these two years?

- (a) 1218 (b) 1332 (c) 1418
(d) 1224 (e) 1350

72. If total student in 2015 is 8000 and increased at 10% annually for the following years then find in which year the no. of Railway student was third highest?

- (a) 2016 (b) 2018 (c) 2017
(d) none of these (e) can't be determined

73. For how many years the no. of Railway student is more than the average of the no. of student of the rest two courses?

- (a) 0 (b) 2 (c) 3
(d) 1 (e) None of these

74. If the total no. of students is constant for all the years, then find in which year the difference between no. of Railway students and SSC students is second lowest?

- (a) 2015 (b) 2016 (c) 2017
(d) 2018 (e) none of these

75. If the ratio of Railway students in 2015, 2017, 2018 be 6:3:5 and difference between Banking and SSC students in 2018 is 300, then find the average no. of SSC students in 2015 and 2017 together?

- (a) 590 (b) 640 (c) 240
(d) 190 (e) 410

Direction (76-80): Read the data carefully and answer the questions.

In a college 'A' there is six streams i.e., Mechanical, CS, IT, Electronic, Electrical and Civil. Total number of students in IT is two times of that of total students in Civil, while ratio

of total number of students in Mechanical to total students in IT is 2 : 3. The ratio of total number of students in CS to total number of students in civil is 8 : 9. Total students in Electrical is 120 more than total students in CS and total students in Electrical is 60 more than total students in electronic. Total number of students in Civil and Electronic is 400.

76. Find difference between total students in IT and total students in Electrical stream?

- (a) 64 (b) 56 (c) 52
(d) 80 (e) 84

77. In college 'B' there is only three streams i.e., CS, IT, Electronic. If total students in college 'B' is 720 and students in IT & Electronic is 20% and 25% more than that of total students in Mechanical & Civil stream of college 'A' respectively, then find total number of students in CS of college 'B'?

- (a) 189 (b) 207 (c) 197
(d) 191 (e) 185

78. Find ratio between total students in CS to total students in electronic?

- (a) 8 : 13 (b) 8 : 15 (c) 8 : 11
(d) 8 : 9 (e) 8 : 7

79. Find the average numbers of students in Mechanical, Civil & IT stream?

- (a) 260 (b) 280 (c) 240
(d) 250 (e) 290

80. Total numbers of electronic students are what percent less than total Mechanical students?

- (a) $6\frac{1}{3}\%$ (b) $4\frac{1}{3}\%$ (c) $2\frac{1}{3}\%$
(d) $1\frac{1}{3}\%$ (e) $8\frac{1}{3}\%$

ENGLISH LANGUAGE

Directions (81-87): Read the following passage carefully and answer the questions given below them.

India has reached the Moon but it has failed to get its women out of homes. The Economic Survey finds that 60 per cent of women in India in the productive age bracket of 15-59 years are engaged in full-time housework. Inclusive growth and gender equality are important for any country to reach its full potential and achieve faster economic growth. India has been working towards becoming a \$5-trillion economy, but it seems to do that minus its female population.

According to the data released by the World Bank in June 2020, India's female labour force participation (FLFP) is the lowest in South Asia. From 30.3% in 1990, India's FLFP dropped to 20.3% percent in 2020, falling behind Pakistan and Afghanistan, which were at 22.2% and 21.8%

respectively. In 1990, the FLFP in Pakistan and Afghanistan stood at 14% and 15% respectively.



The Economic Survey cites several reasons for the declining women workforce. One is that more women are going for higher education, delaying their entry into the labour market. Another is with rising wages in rural areas, women who were forced to contribute to household income to make ends meet are no longer expected to go out. Lack of job opportunities, gender pay parity, education, access to finance, and pressures from society are the major **stumbling** blocks for women.

To improve female participation in the workforce, the Economic Survey says, several reforms have been introduced such as increase in maternal leave to 26 weeks, compulsory day care centres for children, equal wage policy amongst others. The private sector and business community will be crucial in helping bridge the gap between skills and jobs and enable access to decent work for women.

Vocational and technical training, life skills and financial literacy programmes for women to help them develop marketable skills and better decision-making abilities cannot be undertaken in a meaningful way without the involvement of industry. Companies can also invest in women entrepreneurs through microfinance, and bring their goods and services into supply chains. Enhancing women's access to the internet and ICT can create a merging market of connected women who can be linked to business opportunities. In addition, as employers, the private sector can invest in women's security against violence at home and in public spaces, and take steps to ensure their mobility through inclusive transport.

Giving women and girls the opportunity to succeed is not only the right thing to do but can also transform societies and economies. "The economic facts speak for themselves: raising women's labour force participation to that of men can boost GDP, for example, by as much as 9 per cent in Japan and 27 per cent in India," as per the paper published by the World Economic Forum (WEF).

Reducing gender gaps in employment as well as in education can help economies diversify their exports, while appointing more women onto banking supervision boards can challenge cosy group-think, thereby supporting greater bank stability and financial sector resilience. Yet, policy and legislative reforms can only do much. What is required is a change in mindset and cultural **ethos** that enable and empower women rather than bind them in the burden of household work.

81. As per the author, why is the Female Participation in Workforce on the Decline?

- (a) Higher percentages of women don't have required degrees & skills which leads to delaying their entry into the labour market.
- (b) Women get paid less compared to their male counterparts for the same job.

- (c) Women are not encouraged despite India's rapid urbanization.
- (d) Increase in crime rate & violence in public spaces forcing women to stay home.
- (e) Lack of white-collar jobs.

82. What can be done to increase women participation?

- (a) Reducing gender gaps in employment & education which in turn help economies diversify the exports.
- (b) Implementation of various policies and legislative reforms for women empowerment.
- (c) Facilitating entry of women into leadership roles in banks and supervision agencies.
- (d) Changing the mindset & cultural practises.
- (e) All of these.

83. Which of the following statements is **TRUE** as per the context of the passage?

- (a) The Economic Survey finds that 60 per cent of women in India in the productive age bracket of 15-59 years are engaged in office work.
- (b) According to the data released by the World Bank in June 2020, India's female labour force participation is the lowest in the world.
- (c) Female participation in India was more in 1990 which dropped drastically to 20.3% percent in 2020.
- (d) As per the paper published by the Economic Survey, raising women's labour force participation to that of men can boost GDP by as much as 9 per cent in Japan and 27 per cent in India.
- (e) Vocational and technical training, life skills and financial literacy programmes for women can be undertaken in a meaningful way without the involvement of industry.

84. What can be inferred when the author says inclusive growth and gender equality are important for any country to reach its full potential and achieve faster economic growth?

- (a) It is important to address the unpaid wage system and calls for a transformative approach that recognizes and values work.
- (b) It highlights the role of women across different dimensions of sustainable development which is less reflected in the country.
- (c) Empowering women in the country as they constitute half of the entire population of the country & play an active role in the development.
- (d) For growth to be truly comprehensive and gender-equitable, the pattern of growth must create decent work and productive employment opportunities for women.
- (e) Providing equal opportunities, education, and work, salary to both women & men will help to boost the economy.

85. As per the Economic Survey what are the various reforms & programmes that can uplift women & thus help to boost GDP?

- (a) Conducting vocational and technical training, life skills and financial literacy programmes for women.
- (b) Promote women entrepreneurs through microfinance, and bring their goods and services into supply chains.
- (c) Both a & b
- (d) Increase in maternity leave to 26 weeks, compulsory day care centres for children, equal wage policy for women.
- (e) All of these

86. Which of the following words is most similar in meaning as 'ETHOS' highlighted in the given passage?

- (a) Spirit
- (b) Constitution
- (c) Character
- (d) Custom
- (e) Sentiment

87. Which of the following words is most opposite in meaning as 'STUMBLING' highlighted in the given passage?

- (a) Rectify
- (b) Overlook
- (c) Uplifting
- (d) Barriers
- (e) Discouragement

Directions (88-94): Read the following passage carefully and answer the questions given below them.

India needs to create 10-15 million jobs per year for the next decade to provide gainful employment to its young population. Accelerating entrepreneurship and business creation is crucial for such large-scale employment generation.

Moreover, entrepreneurship tends to be innovation-driven and will also help generate solutions to India's myriad social problems including high-quality education, affordable health care, clean energy and waste management, and financial inclusion. Entrepreneurship-led financial growth is also more inclusive and typically, does not involve exploitation of natural resources. Access to finance represents one of the most significant challenges for entrepreneurs and for the creation, survival and growth of small businesses. For the development of entrepreneurship in India more financial institutions apart from the government should come up with low interest rates, flexible loan schemes, and better support. There is the financial institution that helps the new ideology, but the numbers are less. The blue-chip financial institution should encourage the youth to start up their business and provide them with a very good amount of loan at low interest rate.

Results indicated that microfinance institutions were still sorely focusing on providing credit and credit facilities, which meant that it had positive effects on capital assets but not the overall welfare of entrepreneurs. The behaviours that programs influenced were also in relation to credit, and no other aspects of entrepreneurship like innovation and technology.

Therefore, it is important that Microfinance institutions focus on the primary objective of developmental finance. Financial institutions can invest in financial education programs across the globe. Educational Institutes promoting financial education can be sponsored and encouraged to increase the number of students.

Financial education can help individuals everywhere take control of their financial situation, and improved spending habits, increased savings, investments for future requirements, children's higher education, wise use of credit facilities, can all contribute towards growth and stability of the economy.

The role of financial institutions in providing financial education, not only to clients but also to their own staff, needs to be better defined and further promoted. More information is needed at both international and national levels on good programmes and practices and on ways to promote access to financial services. Sharing information on successful experiences can be helpful to all. Financial institutions as both beneficiaries of a financial literate society and custodians of various financial products have a role to play in the whole matrix of financial literacy.

Governments are clearly aware of the need to improve financial literacy. One key element for the future is persuading consumers that they need financial education and enabling them to access it. Also important is better financial education in schools. Today's school-leavers need to be a lot more financially literate than their parents were if they are to manage their personal finances successfully through life. Students **consume** lots of their time on searching irrelevant things but they will not read anything regarding how they can get loans, financial assistance for higher education.

The lack of financial culture carries a lot of risks, students become manipulative and can become a victim of fraud. Thus, there is a need for financial awareness among all. For the success of financial literacy, there is a need to identify the various players in the matrix and understand the roles that they play. The major players in the financial literacy game are the Government, the financial services providers and the customers themselves.

88. As per the author how can financial institutions help in increasing financial literacy?
- By persuading consumers that they need financial education and enabling them to access it.
 - By providing financial education, not only to clients but also to their own staff, which is well defined and further promoted.
 - By stopping exploitation of natural resources.
 - By identifying the various players in the matrix and understanding the roles that they play.
 - All of these.
89. Which of the following statements is **FALSE** as per the context of the passage?
- India needs to create 10-15 million jobs per year for the next decade to provide gainful employment to its young population.
 - The major players in the financial literacy game are the Government, the financial services providers and the customers themselves.
 - Microfinance institutions were focusing on providing credit and credit facilities, thus having positive effects on capital assets and the overall welfare of entrepreneurs.
 - All of these
 - None of these
90. How can financial institutions help in supporting entrepreneurship?
- Financial institutions should promote financial education and encourage the young generation.
 - Financial institutions should focus primarily on providing credit and credit facilities, thus having positive effects on capital assets and the overall welfare of entrepreneurs.
 - Financial institutions should drive awareness programmes which will enlighten people about entrepreneurship.
 - Financial institutions should encourage the youth to start up their business and provide them with a good amount of loan at low interest rate.
 - Financial institutions help individuals to take control of their financial situation, and improved spending habits, wise use of credit facilities.
91. Which of the following words is most similar in meaning as '**CONSUME**' highlighted in the given passage?
- Spend
 - Waste
 - Destroy
 - Lost
 - Invest
92. What is the central idea of the passage?
- Boosting financial institutions in order to create universal growth & development.
 - Encouraging youth for entrepreneurship by providing them proper financial assistance.
 - Create a greater number of financial institutions which will uplift young entrepreneurs & to increase financial literacy among them.
 - Government focuses on uplifting small-scale industries, self-help groups & young entrepreneurs.
 - Need to increase financial literacy among all & promote entrepreneurship through financial institutions.
93. What is the tone of the passage?
- Introspective
 - Speculative
 - Critical
 - Informative
 - Sarcastic
94. What is the biggest challenge which entrepreneurs encounter most?
- Access to finance represents one of the most significant challenges for entrepreneurs and for the creation, survival and growth of small businesses.
 - Lack of training programmes through which entrepreneurs can hone their skills and enhance their knowledge to start and grow a business.
 - Lot of risks because of wrong policies, malpractices, frauds involved in business which restrict the entry of new-comers in business.
 - Less number of financial institutions that help the new ideology.
 - Focus of microfinance institutions solely on providing credit and credit facilities but not on other aspects of entrepreneurship like innovation and technology.
- Direction (95- 100):** Read the sentence to find out whether there is any error in it. The error, if any, will be in one part of the sentence. The number corresponding to that part is your answer. If the given sentence is correct as given, mark the answer as "No error". Ignore the errors of punctuation, if any.
95. When Smita will find (A) / out a solution (B) / to this problem, (C) / she will be awarded a prize (D).
- A
 - B
 - C
 - D
 - No error.
96. Allowing professionals and individuals (A) / with minimum experience of 5 years and giving (B) / small companies a chance to convert (C) / themselves into big companies(D).
- A
 - B
 - C
 - D
 - No error.
97. Rajat had taken the loan from bank (A) to open a photograph studio, but losses (B) / in business rendered him jobless (C) / and unable to repay the loan (D).
- A
 - B
 - C
 - D
 - No error.
98. Sumit asked me (A) / to completely forget him (B) / but I know forgetting him (C) / is not an easy thing (D).
- A
 - B
 - C
 - D
 - No error.

99. The Madhya Pradesh High Court (A) / made it clear that a minor in possession of (B) / drugs or other illicit substances (C) / can be inviting criminal action (D).

- (a) A (b) B (c) C
(d) D (e) No error.

100. This is the (A) / first time (B) I see such an (C) / interesting movie. (D).

- (a) A (b) B (c) C
(d) D (e) No error.

Directions (101 -105): Given below are six sentences given in par jumbled form. Arrange the following sentences to form a coherent paragraph and answer the following questions.

- A. Space junk, or space debris, is any piece of machinery or debris left by humans in space which refers to big objects such as dead satellites that have failed or been left in orbit at the end of their mission.
B. All space junk is the result of us launching objects from Earth, and it remains in orbit until it re-enters the atmosphere.
C. Space junk is no one countries' responsibility, but the responsibility of every spacefaring country.
D. The NASA Orbital Debris Program officially began in 1979 in the Space Sciences Branch at the Johnson Space Centre (JSC) in Houston, Texas to create fewer orbital debris, and designs equipment to track and remove the debris already in space.
E. The problem of managing space debris is both an international challenge and an opportunity to preserve the space environment for future space exploration missions.
F. What's more, there are around 34,000 pieces of space junk bigger than 10 centimetres in size and millions of smaller pieces that could nonetheless prove disastrous if they hit something else.

101. Which of the following is the **SECOND** sentence after rearrangement?

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

102. Which of the following is the **FOURTH** sentence after rearrangement?

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

103. Which of the following is the **FIRST** sentence after rearrangement?

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

104. Which of the following is the **FIFTH** sentence after rearrangement?

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

105. Which of the following is the **LAST** step after rearrangement?

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

Directions (106-109): In the following questions two columns are given containing three sentences/phrases each. In first column, sentences/phrases are A, B and C and in the second column the sentences/phrases are D, E and F. A sentence/phrase from the first column may or may not connect with another sentence/phrase from the second column to make a grammatically and contextually correct sentence. Each question has five options, four of which display the sequence(s) in which the sentences/phrases can be joined to form a grammatically and contextually correct sentence. If none of the given options forms a correct sentence after combining, mark (e), i.e. "None of these" as your answer.

106. Column (I)

- (A) We are all taught to love our country which we follow blindly
(B) We must educate ourselves, open our mind, but more importantly open our eyes,
(C) I think you will find lots of attitude changes

Column (II)

- (D) because without that change won't happen and change isn't going to be overnight.
(E) but in that process, we start hating each other.
(F) and that stops us from appreciating other cultures, other countries, other people, other races, other religions.

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

107. Column (I)

- (A) The types of ads being produced these days have shown great influence on the minds of people
(B) Today the human needs are fulfilled
(C) It is widely assumed that dark-skinned Blacks have higher rates of hypertension

Column (II)

- (D) by persuading them through attractive advertising tactics.
(E) than their lighter-skinned cohorts because the former experience greater racial discrimination.
(F) and highlight the need to assess discrimination in studies of the skin colour-hypertension relationship.

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

108. Column (I)

- (A) It might feel overwhelming when your child says
 (B) I can't promise you will 'make it,
 (C) Spending initial days of the lockdown was difficult

Column (II)

- (D) would grow up to become a professional violinist.
 (E) to become a famous actor or world-renowned scientist.
 (F) for most of us as our mobility was restricted
 (a) C-F (b) A-E (c) C-D
 (d) A-D (e) Both (a) & (b)

109. Column (I)

- (A) To accomplish any goal, write it down,
 (B) Being part of a community made all
 (C) My parents also gave me a vision of what could be

Column (II)

- (D) dreaming of attending the music concert of a famous singer.
 (E) map out a practical plan, and surround yourself with mentors.
 (F) learning with other aspirants made it fun again.
 (a) B-D (b) A-D (c) A-E
 (d) C-F (e) Both (a) & (d)

Directions (110-112): In the questions given below, two sentences are given which are grammatically correct and meaningful. Connect them by the word given in the options in the best possible way without changing the intended meaning. Choose your answer accordingly from the options to form a correct, coherent sentence.

- 110.** (i) We all want to be the best parents we can be for our children.
 (ii) There is often conflicting advice on how to raise a kid who is confident, kind and successful.
 A. And
 B. But
 C. However
 (a) Only (C) (b) Both (B) & (C) (c) Only (B)
 (d) All of these (e) None of these



- 111.** (i) Mohan always gets the highest grade in the school.
 (ii) He does not study regularly.
 A. Even though
 B. Despite of
 C. Either
 (a) Only (A) (b) Only (B) (c) Both (A) & (C)
 (d) All of these (e) None of these

- 112.** (i) Minal was happy with her job.
 (ii) Working with very little salary.
 A. Indeed
 B. Moreover
 C. In spite of
 (a) Both (A) & (B) (b) Only (C) (c) Only (B)
 (d) All of these (e) None of these

Directions (113-116): In the questions, one phrase/idiom is given followed by three sentences. Choose the sentence which conveys the same meaning as that of the given idiom/phrase.

- 113.** Pay through the nose.
 (a) You can get quality education these days, but you have to pay too much money for that.
 (b) Nowadays home loans are easily available but you need to pay a small sum of interest.
 (c) Mr. Sharma goes for vacation every month but he needs to work very hard for that.
 (d) Both (a) and (b)
 (e) All (a) (b) and (c)

- 114.** Come to a halt.
 (a) His progress became stagnant after he got into the company of bad people.
 (b) Arvind started working enthusiastically on his new project as he started his new ventures recently.
 (c) Many researches stop abruptly after a sudden reduction in funding by the government & other agencies.
 (d) Both (a) and (b)
 (e) All (a) (b) and (c)

- 115.** In the bag.
 (a) She was very much proud of her intelligence.
 (b) After putting lots of efforts, Nisha was very much sure about her selection in the top MBA college of India.
 (c) The team was in doubt after they failed their 1st match against England.
 (d) Both (a) and (c)
 (e) All (a) (b) and (c)

- 116.** Know the ropes.
 (a) Make sure you know all the details regarding the new company where you are going for an interview.
 (b) In order to achieve anything, one must know his strengths.
 (c) Ramesh was not aware of his potential, until he met Anu.
 (d) Both (b) and (c)
 (e) All (a) (b) and (c)

Directions (117-120): 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.

117. Amit Shah was **scheduled** (A) to take part via video conferencing in the **beneficiaries** (B) for the **programme** (C) of over one lakh houses **constructed** (D) in Madhya Pradesh under the Pradhan Mantri Awas Yojana.

- (a) A-B
- (b) B-C
- (c) A-D
- (d) Both A-D & B-C
- (e) The sentence is correct

118. The map **diverted** (A) the total forest area **shows** (B) for **projects** (C) and defence **development** (D) between 1991 and 2021.

- (a) A-B
- (b) Both A-B & C-D
- (c) A-D
- (d) Both A-C & B-D
- (e) The sentence is correct

119. Heavy **rise** (A) on crude oil combined with a **recent** (B) uptick in international crude prices is responsible for this **significant** (C) price **taxation** (D).

- (a) A-B
- (b) B-C
- (c) Both A-D & B-C
- (d) C-D
- (e) The sentence is correct

120. The iPhone **maker** (A) suggested **users** (B) to place their watch on the **charger** (C) and then **wait** (D) for at least 30 minutes.

- (a) A-C
- (b) B-D
- (c) A-D
- (d) Both A-C & B-D
- (e) The sentence is correct

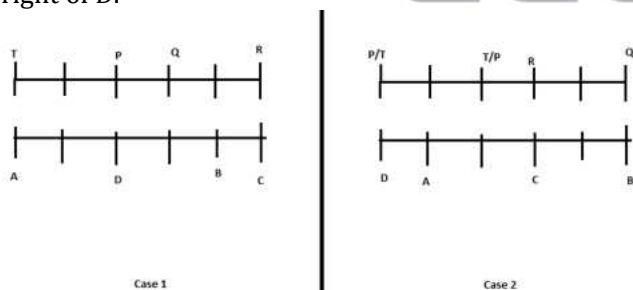
Solutions

REASONING ABILITY

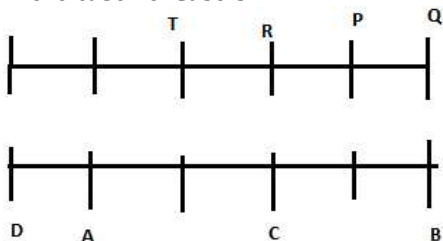
Directions (1-3):

By using given information:

A sits fourth to the left of B and one of them sits at a corner. We have two possible cases for this case 1 and case 2. Only one person sit between Q and R. R faces C. C sits third to the right of D.

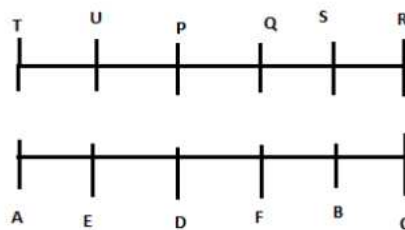


More than two persons sit to the right of Q. Only one person sit between P and T and T does not sit near to Q. Now we have one more case i.e. Case 3.



Case 3

Two persons sit between U, who faces E and S, who does not face A. Now case 2 and case 3 will be eliminated.



1. (e):

2. (e):

3. (c):

Direction (4-7):

- | | |
|----------------------------|------------------------|
| 4. (e): I. $Q < B$ (True) | II. $B \geq Q$ (False) |
| III. $P > F$ (False) | IV. $M = B$ (False) |
| 5. (d): I. $N < A$ (False) | II. $K < E$ (False) |
| III. $M > L$ (True) | IV. $M = L$ (False) |
| 6. (b): I. $F < O$ (True) | II. $O \leq B$ (False) |
| III. $S < U$ (False) | IV. $O > W$ (True) |

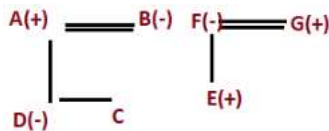
7. (d): I. $Q = B$ (True) Either or
 II. $Q \leq B$ (True)
 III. $B < Z$ (False)
 IV. $B > U$ (True)

Directions (8-12):

8. (e): By using statement I, II, and III, we get Box B7 is kept two places below Box B3.

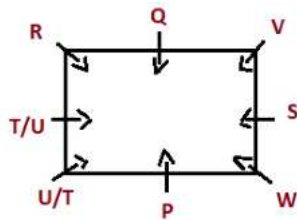
Boxes
B4
B2
B6
B3
B1
B5
B7

9. (d): By using all the statement we get C is either niece or nephew of G.



10. (e): By using statement I, II and III we get the code for 'candid' as 'pa'.

11. (d): By using statement I, II, III we get two Possibilities for place of T.



12. (d): By using statement I, II and III we get two Possibilities for the floor of T.

	Case1	Case2
Floors	Persons	Persons
8	S	S
7	P	P
6		
5	W	W
4	Q	Q
3	U	U
2	T	
1		T

Direction (13-14):

13. (d): The order of height is:

$H > C(175\text{cm}) > A/F(170\text{cm}) > A/F > D > E(160\text{cm}) > B > G$

Sum of height of A and E is 325cm when F is taller than A, then height of A will be 165cm. so the possible height of D will be 161cm.

14. (b): The order of height is:

$H > C(175\text{cm}) > A/F(170\text{cm}) > A/F > D > E(160\text{cm}) > B > G$

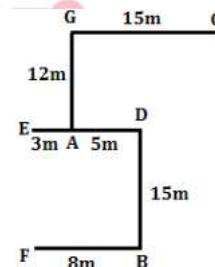
If the Sum of height of C and H is 360cm, then height of H = 185cm. and the sum of height of G and E is 325 cm, then height of G = 165cm. Sum of height of H and G = (185 + 165) = 350cm.

Direction (15-16):

15. (a): Since the advertisement invites 'intelligent' students by promising them and improved performance through their exceptional coaching, so both I and II are implicit. However, nothing can be assumed about other institutes as the given advertisement talks of only a particular institute. So, III is not implicit.

16. (d): The statement expresses grave concern over the lack of proper premises and inadequate staff in labour and industrial courts and a proper office only can ensure their smooth functioning. So, both I and III are implicit. The lack of facilities to the courts also indicates the state's negligent attitude to the condition of the courts. So, II is also implicit.

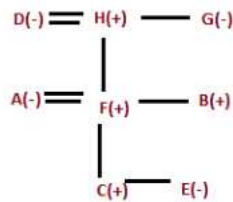
Direction (17-18):



17. (b): By using Pythagoras theorem the shortest distance between Pole C and Pole A will be $\sqrt{369}$ m.

18. (d): The total distance between Pole F and Pole E will be 15 m.

Direction (19-20):



19. (d): Clearly D is the Paternal Grandmother of C.

20. (c): Clearly B is the nephew of G.

Directions (21-25): By using the given information:

Two boxes are kept between the box of Biscuits, which is kept at the top and Box B, which does not contain Soaps and Spices. The box which contains Soaps is kept just below Box P. Only three boxes are kept between the box of Soaps and the box of Oils. Box Q is kept just below the box of oils. Three boxes are kept between Box A, which does not contain Spices and Creams and Box P, which does not contain Biscuits and Toffee. We have three possible cases-Case1, Case 2 and Case 3.

Case1		Case2		Case3	
Boxes	Products	Boxes	Products	Boxes	Products
	Biscuits		Biscuits	A	Biscuits
P					Oils
	Soaps	A		Q	
B		B	Oils	B	
		Q		P	
A					Soaps
	Oils	P			
Q			Soaps		

Only two boxes are kept between box of Toffee and the box of Shampoo and both boxes are kept in the box above the box of oils. Now Case 2 and Case 3 will be eliminated.

Case1	
Boxes	Products
	Biscuits
P	Shampoo/Toffee
	Soaps
B	
	Toffee/Shampoo
A	
	Oils
Q	

Three boxes are kept between Box A, which does not contain Spices and Creams and Box P, which does not contain Biscuit and Toffee.

Therefore, Box A contains Detergent, Box P contains Shampoo. As Box B does not contain spices so Box B contains Creams and Box Q contains Spices.

Box R is kept just below the box of Detergent. Box C is kept above Box S but below Box T. Now we have our final arrangement.

Boxes	Products
T	Biscuits
P	Shampoo
C	Soaps
B	Creams
S	Toffee
A	Detergent
R	Oils
Q	Spices

21. (e):

22. (d):

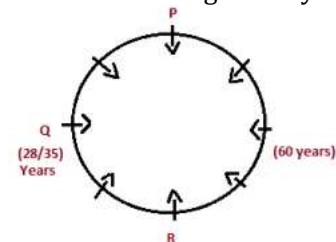
23. (d):

24. (d):

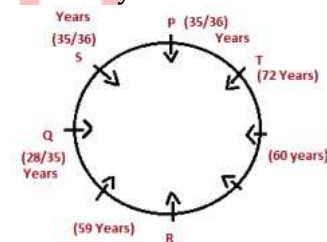
25. (e):

Directions (26-30): By using the given information:

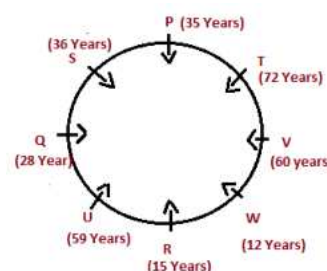
Q, whose age is a multiple of 7 sits second to the left of R and three persons sit between R and P. Only one person sits between R and the one who is age is 60 years.



The one whose age is 59 years sits third to the left of the one whose age is 60 years. Three persons sit between T, who is the eldest person and the one whose age is 59 years. S and P are immediate neighbors of each other but neither of them is more than 36 years old.



U is not an immediate neighbor of T. W's age is not 60 years and also he doesn't sit immediate left of R. P is one year younger to S. W is younger to R. Now we have our final arrangement.



26. (e): 27. (a): 28. (e):

29. (e): 30. (a):

31. (d): In this question, we have to find which is not related to the above statement.

For I: It is completely related to the passage, there must be awareness program to make society awake.

For II: This is must do step which should be taken by Government, but it is not related to statement which is mention above.

For III: It is a myth that should be avoided or abolished but it is the part of the statement given above.

Directions (32-35): By using the given information:

Only three persons are younger to B, who is a driver. The one who is the second oldest is Carpenter. E was born in a year after B but he was not born in a leap year. Only two persons was born between E and A. Now we have two possible cases i.e., Case1 and Case2.

Case1			
Years	Age	Persons	Profession
1976	45		
1978	43		Carpenter
1980	41		
1984	37	A	
1988	33		
1991	30	B	Driver
1995	26	E	
2001	20		
2004	17		

Case2			
Years	Age	Persons	Profession
1976	45		
1978	43		Carpenter
1980	41		
1984	37		
1988	33	A	
1991	30	B	Driver
1995	26		
2001	20	E	
2004	17		

D's age is not 26 years. The sum of age of D and the one who is Doctor is 67 years. i.e. (26 + 41) years. The difference between the age of Nurse and the carpenter is 6 years. i.e. (43-37) years. A is not a Nurse. Now case1 will be eliminated. The sum of age the plumber and C is 62 years i.e., (45 + 17) years. Now we have one more case i.e., Case2(a). I was not born in 1984 and he is neither a plumber nor a carpenter, so by elimination I is a doctor.

Case2			
Years	Age	Persons	Profession
1976	45		Plumber
1978	43		Carpenter
1980	41	D	
1984	37		Nurse
1988	33	A	
1991	30	B	Driver
1995	26	I	Doctor
2001	20	E	
2004	17	C	

Case2(a)			
Years	Age	Persons	Profession
1976	45	C	
1978	43		Carpenter
1980	41	D	
1984	37		Nurse
1988	33	A	
1991	30	B	Driver
1995	26	I	Doctor
2001	20	E	
2004	17		Plumber

The one whose age is 41 years is not a singer. D is neither an Engineer nor a Banker, so D is a Painter. The sum of age of Painter and Singer is 61 years. A is not an Engineer, so A is a banker and C is an Engineer.

Case2			
Years	Age	Persons	Profession
1976	45		Plumber
1978	43		Carpenter
1980	41	D	Painter
1984	37		Nurse
1988	33	A	Banker
1991	30	B	Driver
1995	26	I	Doctor
2001	20	E	Singer
2004	17	C	Engineer

Case2(a)			
Years	Age	Persons	Profession
1976	45	C	Engineer
1978	43		Carpenter
1980	41	D	Painter
1984	37		Nurse
1988	33	A	Banker
1991	30	B	Driver
1995	26	I	Doctor
2001	20	E	Singer
2004	17		Plumber

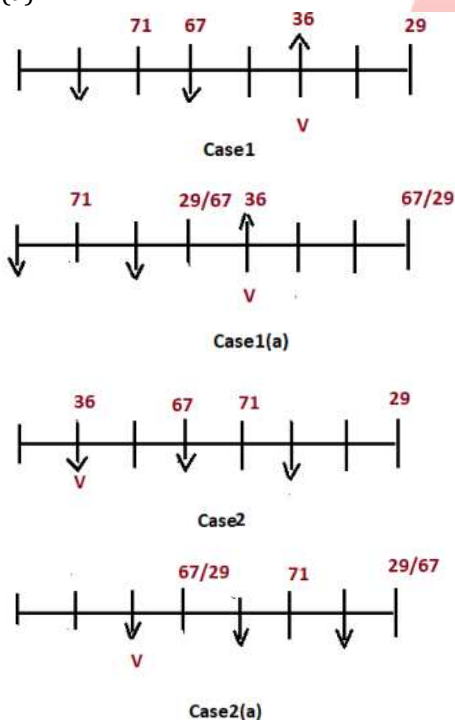
F is younger than G but older than H, who is not a nurse. Now case2 will be eliminated as we can't place H. Now we have our final arrangement.

Years	Age	Persons	Profession
1976	45	C	Engineer
1978	43	G	Carpenter
1980	41	D	Painter
1984	37	F	Nurse
1988	33	A	Banker
1991	30	B	Driver
1995	26	I	Doctor
2001	20	E	Singer
2004	17	H	Plumber

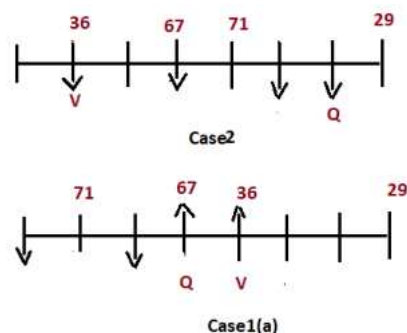
32. (a): 33. (b): 34. (d):
35. (a):

Directions (36-38): By using the given information:

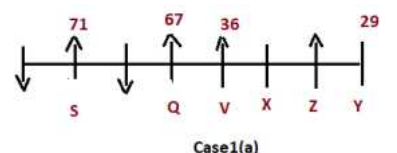
The one who has the highest amount of money sits third to the left of V. Neither V nor the one who has highest amount of money sits at the corner. The immediate neighbor of the one who has highest money faces south direction. Three persons sits between the one who has Rs67 and the one who has the least amount of money and one of them sits at the right corner of the row. The one who has the least amount of money is not an immediate neighbor of the one who has the highest amount of money. V has 36 rupees. We have four possible cases for that. Case1, Case1(a), Case2, and Case2(a).



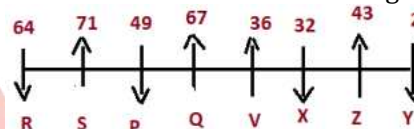
The number of persons sitting to the left of V is same as the number of persons sitting to the right of Q. Q neither have the highest nor the lowest amount money. Now Case1 and Case2(a) will be eliminated as we cannot place Q.



Y does not sit near to V. Z sits third to the right of Q. Y and X are immediate neighbors of Z. The number of persons sitting between Y and V is same as the number of persons sitting between V and S. Now case 2 will be eliminated as we can't place S, who does not face south. Immediate neighbor of X faces the same direction.



Y and X faces the opposite direction as Z, who has 43 rupee. R has more money than P, who sits near to Q. X has less money than P. Now we have our final arrangement.



36. (d): 37. (e): 38. (e):
39. (e): Only argument II is strong.

The students cannot be enrolled in the courses just on the basis of their interests, but their compatibility with the same also matters. So, I does not hold. Besides, lack of institutes is not criteria to deny post-graduate courses to students. So, argument III also does not hold. II provides a genuine reason and thus holds strong.

40. (e): For I: Yes, about counterfeiting is mentioned, whether ban on high currency notes gets success in terrorism, corruption and counterfeiting. So, we can easily assume that Govt. was concerned about the counterfeiting of notes.

For II: Yes, as according to statement demonetization is good or bad is a matter of debate, but its impact on weaker section is not mentioned, but if we assume it as bad we can consider that it has bad impact on weaker sections of society.

For III: No, from statement we can conclude that there is revamp in tax compliance but to classify its increment into direct and indirect tax, it's not possible to assume according to statement.

41. (d): Total number of Macbook manufactured by A & Laptops manufactured by B together

$$= 800 \times \frac{40}{100} + 960 \times \frac{25}{100}$$

$$= 320 + 240 = 560$$

Total number of Macbook manufactured by D

$$= 840 \times \frac{50}{100} = 420$$

$$\text{Required percentage} = \frac{560-420}{420} \times 100$$

$$= \frac{140}{420} \times 100 = 33\frac{1}{3}\%$$

42. (e): Total number of Desktop manufactured by C & D together

$$= 1020 \times \frac{100-(30+40)}{100} + 840 \times \frac{100-(25+50)}{100}$$

$$= 306 + 210 = 516$$

Total number of Laptops manufactured by A & B together

$$= 800 \times \frac{20}{100} + 960 \times \frac{25}{100}$$

$$= 160 + 240 = 400$$

$$\text{Required ratio} = 516 : 400 = 129 : 100$$

43. (a): Macbook manufactured by E = $400 \times 3 - \left[960 \times \frac{45}{100} + 1020 \times \frac{40}{100} \right]$

$$= 1200 - (432 + 408)$$

$$= 1200 - 840 = 360$$

$$\text{Desktop manufactured by E} = 360 \times \frac{5}{9} = 200$$

$$\text{Laptops manufactured by E} = 1040 - (360 + 200) = 480$$

44. (d): Total number of Desktop manufactured by B = $960 \times \frac{100-(25+45)}{100} = 288$

$$\text{Total number of Desktop manufactured by D} = 840 \times \frac{100-(25+50)}{100} = 210$$

$$\text{Required percentage} = \frac{288-210}{210} \times 100$$

$$= \frac{78}{210} \times 100 = 37\frac{1}{7}\%$$



45. (c): Laptops manufactured by B

$$= 960 \times \frac{25}{100} = 240$$

Laptops manufactured by C

$$= 1020 \times \frac{30}{100} = 306$$

$$\text{Laptops manufactured by D} = 840 \times \frac{25}{100} = 210$$

Total Laptops manufactured by B, C & D

$$= (240 + 306 + 210) = 756$$

$$\text{Required average} = \frac{756}{3} = 252$$

46. (d): Let length and breadth of rectangle be $8x$ and $7x$ respectively

From I,

$$\text{Given, } \frac{\sqrt{3}}{4} \times \text{side}^2 = 25\sqrt{3}$$

$$\text{Side of triangle} = 10 \text{ cm.}$$

$$\text{Perimeter of triangle} = 30 \text{ cm}$$

$$\text{So, perimeter of rectangle} = 30 \text{ cm}$$

$$2(8x+7x)=30$$

$$x=1$$

So, length and breadth of the rectangle is 8 cm and 7 cm respectively.

$$\text{Area of rectangle} = 8 \times 7 = 56 \text{ cm}^2$$

From II.

$$\text{Perimeter of Square} = 16 \text{ cm.}$$

$$\text{Side of square} = 4 \text{ cm.}$$

$$\text{So, length of rectangle} = 8 \text{ cm}$$

$$\text{And breadth of rectangle} = 7 \text{ cm.}$$

$$\text{Area of rectangle} = 56 \text{ cm}^2$$

Either I or II is sufficient to answer.

47. (c): Let minimum passing mark in the exam = x

And maximum passing mark in the exam = y

From I.

$$\text{Veer score's} = 1.25x = \frac{y}{2}$$

$$y = 2.5x$$

from II.

$$60 = 1.5x$$

$$x = 40$$

from I and II.

$$\text{So maximum marks } y = 100.$$

Both Statement is necessary.

48. (d): Let cost price of the article = $100x$.

$$\text{So, M.R.P} = 150x.$$

From I.

$$\text{Seller make the aggregate profit of } 14.75\%.$$

$$= 14.75x.$$

$$\text{So, aggregate discount} = \frac{150x - 114.75x}{150x} \times 100$$

$$= 23.75\%$$

From II.

M.R.P = 750

So, cost price = 500

Selling price = 500 + 73.75 = 573.75

Aggregate Discount = $\frac{750-573.75}{750} \times 100 = 23.5\%$

Either I or II is sufficient.

49. (e): From I $x + y = 7$

From II. $x \sim y = 1$

So, we can't be determined the actual value of x and y .

50. (e): From I

Ankit Investment share = 1600 Rs.

Time on which Ankit Invest = 8 months

Satish investment share = 1200 Rs.

From II

Given, profit share of Satish = 630 Rs.

So, from both sentence we could not find answer, time period on which Satish invest his capital not given, so we could not determine profit ratio of Ankit and Satish.

51. (a): Let amount invested in each scheme = Rs. x

$$\frac{x \times 12 \times 6}{100} - \frac{x \times 8 \times 8}{100} = 1280$$

$$\Rightarrow \frac{8x}{100} = 1280$$

$$\Rightarrow x = 16,000 \text{ Rs.}$$

52. (c): Let speed of boat in still water v km/hr and speed of current be r km/hr

$$\text{Speed of boat in upstream} = \frac{11}{4} \times 60$$

$$v - r = 15 \text{ km/hr ... (i)}$$

$$\Rightarrow \frac{r}{r+v} = \frac{1}{7};$$

$$\Rightarrow 7r = r + v \Rightarrow 6r = v \text{ ... (ii)}$$

Solving eq. (i) and (ii)

$$5r = 15 \Rightarrow r = 3 \text{ km/hr}$$

$$\therefore \text{Downstream speed} = 18 + 3 = 21 \text{ km/hr}$$

$$\therefore \text{Required distance} = 21 \times \frac{52}{60} = 18.2 \text{ km}$$

53. (b): Let the selling price of article be Rs. $100x$

So, the marked price of article = $100x \times \frac{125}{100} = 125x$ Rs.

Cost price of article = $100x \div 1.25 = \text{Rs } 80x$

ATQ

$$(125x - 80) - (100x - 80x) = 200$$

$$x = 8 \text{ Rs.}$$

Cost price of article = Rs 640

$$\text{Required selling price} = 640 \times \frac{11}{8} = 880 \text{ Rs.}$$

54. (e): Let the investment of B = $25x$

So, the investment of A = $25x \times \frac{52}{100} = 13x$

And let the investment of C be Rs y

So, profit ratio of A, B & C =

$$\begin{array}{ccc} \text{A} & \text{B} & \text{C} \\ 13x \times 4 + 15x \times 8 & : & 25x \times 4 + 12.5x \times 8 & : & y \times 8 \\ 172x & : & 200x & : & 8y \end{array}$$

ATQ

$$8y = 2(200x - 172x)$$

$$\frac{x}{y} = \frac{1}{7}$$

$$\text{Required percentage} = \frac{7}{25} \times 100 = 28\%$$

55. (b): For I- number of plastic balls = 10

ATQ, number of leather balls = $18 - 10 = 8$

So, desired probability = ${}^{10}C_1 \times {}^8C_1 / {}^{18}C_2 = 80/153$

So, I can be answer.

For II- number of plastic balls = 8

ATQ, number of leather balls = $18 - 8 = 10$

So, desired probability = ${}^8C_1 \times {}^{10}C_1 / {}^{18}C_2 = 80/153$

So, II cannot be answer.

For III- number of plastic balls = 6

ATQ, number of leather balls = $18 - 6 = 12$

So, desired probability = ${}^6C_1 \times {}^{12}C_1 / {}^{18}C_2 = 8/17$

So, III can be answer.

56. (d): Total people who have under graduate degree from C & D

$$= 6000 \times \frac{28}{100} - 880 + 6000 \times \frac{25}{100} - 700$$

$$= 800 + 800 = 1600$$

Total illiterate people from A & E

$$= 6000 \times \frac{12}{100} \times \frac{40}{60} + 6000 \times \frac{20}{100} \times \frac{50}{50}$$

$$= 480 + 1200 = 1680$$

$$\text{Required ratio} = \frac{1600}{1680} = 20 : 21$$

$$\begin{aligned} \text{57. (d): Required angle} &= \frac{500+700}{440+500+880+700+360} \times 360 \\ &= \frac{1200}{2880} \times 360 = 150^\circ \end{aligned}$$

$$\text{58. (e): Total literate people from C} = 6000 \times \frac{28}{100} = 1680$$

Let total males = $4x$

And, total number of females = $3x$

$$\text{Total population of C} = 6000 \times \frac{28}{100} \times \frac{100}{80} = 2100$$

$$\text{Total females in C} = 2100 \times \frac{3x}{7x} = 900$$

$$\text{And, total males in C} = 2100 \times \frac{4x}{7x} = 1200$$

$$\text{Total literate females from C} = 900 \times \frac{80}{100} = 720$$

$$\text{Total literate males from C} = 1680 - 720 = 960$$

Total females have post graduate degree from C

$$= 880 - 960 \times \frac{50}{100} = 400$$

So total number of females who are literate but do not have post graduate degree from C

$$= 720 - 400 = 320$$

59. (b): Total number of people who have not post graduate degree from A = $6000 \times \frac{12}{100} - 440 = 280$
 Total number of people who have not post graduate degree from D = $6000 \times \frac{25}{100} - 700 = 800$
 Total number of people who have not post graduate degree from E = $6000 \times \frac{20}{100} - 360 = 840$
 Required average = $\frac{280+800+840}{3}$
 $= \frac{1920}{3} = 640$

60. (a): Total illiterate people from A & C = $6000 \times \frac{12}{100} \times \frac{40}{60} + 6000 \times \frac{28}{100} \times \frac{20}{80}$
 $= 480 + 420$
 $= 900$
 total illiterate people from E = $6000 \times \frac{20}{100} \times \frac{50}{50} = 1200$
 Required percentage = $\frac{1200-900}{1200} \times 100$
 $= \frac{300}{1200} \times 100 = 25\%$

61. (a): Given the total number of Men is N
 We know that $(M \times D \times H) = \text{Work}$
 ATQ $(N \times 21 \times 8) = \left((N-1) \times 21 \times \frac{100}{70} \times 6 \right)$
 $N = 15$
 Required number of days = $\frac{15 \times 21 \times 8}{(15+3) \times 10} = 14$ days

62. (c): Length of train A = $64 \times \frac{5}{18} \times 27 = 480$ m
 Length of train B = $64 \times \frac{7}{8} \times \frac{5}{18} \times 36 = 560$ m
 Relative speed when both train running in opposite direction = $\left(64 + 64 \times \frac{7}{8} \right) \times \frac{5}{18} = \frac{100}{3}$ m/s
 Train A and train B will cross each other in
 $= \frac{(480+560)3}{100} = 31.2$ sec

63. (a): Let initially strength of class = N
 So, total weight of class = $20N$
 When two persons include
 Total weight of class = $22(N+2)$
 Weight of two persons included = $2N + 44$
 4 persons excluded weight
 $= \frac{2N+44}{2} = N + 22$
 ATQ,
 $22(N+2) - (N+22) = (N+2-4) \times 25$
 $N = 18$

64. (b): Let man, his wife age, his elder son's age and his younger son's age is $20x$, $3y$, $9x$ and y respectively.
 ATQ,
 $9x - y = 6 \dots (i)$
 $20x + 3y + 9x + y = 26.5 \times 4 \dots (ii)$
 Solving (i) & (ii)
 $x = 2$
 $y = 12$
 his wife's age = $12 \times 3 = 36$

65. (e): Let the quantity of liquid P be $4x$ in mixture
 So, quantity of liquid Q = $4x \times \frac{225}{100} = 9x$
 In 52 liters,
 Quantity of liquid P
 $= \frac{52 \times 4x}{13x} = 16$ liters
 Quantity of liquid Q = $\frac{52 \times 9}{13} = 36$ liters
 ATQ,
 $\frac{4x-16}{13x} = \frac{1}{5}$
 $\Rightarrow 20x - 80 = 13x$
 $\Rightarrow 7x = 80 \Rightarrow x = \frac{80}{7}$
 Quantity of liquid Q in final mixture = $9 \times \frac{80}{7} - 36 = \frac{468}{7}$ lit. = 66.86 liters

66. (c): Pattern of series
 $12 \times 0.5 + 1 = 7$
 $7 \times 1 + 1.5 = 8.5$
 $8.5 \times 1.5 + 2 = 14.75$
 $? = 14.75 \times 2 + 2.5 = 32$
 $32 \times 2.5 + 3 = 83$

67. (a): Pattern of series —
 $12 \times 6 + 6 = 78$
 $78 \times 5 + 5 = 395$
 $395 \times 4 + 4 = 1584$
 $1584 \times 3 + 3 = 4755$
 $? = 4755 \times 2 + 2 = 9512$

68. (e): $26 \times 2 + 1 = 53$
 $53 \times 4 + 2 = 214$
 $214 \times 6 + 3 = 1287$
 $1287 \times 8 + 4 = 10300$
 $? = 10300 \times 10 + 5 = 103005$

69. (d): Pattern of series —
 $4187 - (11^3 - 1) = 2857$
 $2857 - (9^3 - 1) = 2129$
 $2129 - (7^3 - 1) = 1787$
 $1787 - (5^3 - 1) = 1663$
 $? = 1663 - (3^3 - 1) = 1637$

70. (e): Pattern of series

$$27 \div 1 = 27$$

$$27 \times 2 = 54$$

$$54 \div 3 = 18$$

$$18 \times 4 = 72$$

$$? = 72 \div 5 = 14.4$$

71. (d): Let the total no. of students in 2015 and 2017 be $4x$ and $5x$ respectively.

$$\text{Given } \left(4x \times \frac{40}{100} - 5x \times \frac{30}{100}\right) = 0.1x = 180$$

$$x=1800$$

$$\text{then no. of banking students in 2017} = 9000 \times \frac{36}{100} = 3240$$

$$\text{no. of banking students in 2015}$$

$$= 7200 \times \frac{28}{100} = 2016$$

$$\text{Difference} = (3240 - 2016) = 1224$$

72. (b): No. of Railway students in 2015

$$= \left(8000 \times \frac{40}{100}\right) = 3200$$

$$\text{No. of Railway students in 2016}$$

$$= \left(8000 \times \frac{110}{100} \times \frac{30}{100}\right) = 2640$$

$$\text{No. of Railway students in 2017}$$

$$= \left(8000 \times \frac{110}{100} \times \frac{110}{100} \times \frac{30}{100}\right) = 2904$$

$$\text{No. of Railway students in 2018}$$

$$= \left(8000 \times \frac{110}{100} \times \frac{110}{100} \times \frac{110}{100} \times \frac{1}{4}\right) = 2662$$

As it can be seen that in 2018 the no. of Railway student was third highest.

73. (d): Let total no. of students in 2015, 2016, 2017, 2018 be a, b, c, d respectively

For 2015,

$$\text{no. of Railway students} = a \times \frac{40}{100} = 0.4a$$

average of Banking and SSC students

$$= \frac{0.28a + 0.32a}{2} = 0.3a$$

For 2016,

$$\text{no. of Railway students} = a \times \frac{30}{100} = 0.3a$$

average of Banking and SSC students

$$= \frac{0.42a + 0.28a}{2} = 0.35a$$

For 2017,

$$\text{no. of Railway students} = a \times \frac{30}{100} = 0.3a$$

average of Banking and SSC students

$$= \frac{0.36a + 0.34a}{2} = 0.35a$$

For 2018

$$\text{no. of Railway students} = a \times \frac{25}{100} = 0.25a$$

average of Banking and SSC students

$$= \frac{0.30a + 0.45a}{2} = 0.375a$$

So, there is one year i.e. 2015 in which no. of Railway students is more than average of Banking and SSC students together.

74. (c): Let the total no. of students be x for all of the given year, then

For 2015

$$\text{Difference between Railway and SSC students} = (0.4x - 0.32x) = 0.08x$$

For 2016

$$\text{Difference between Railway and SSC students} = (0.30x - 0.28x) = 0.02x$$

For 2017

$$\text{Difference between Railway and SSC students} = (0.34x - 0.30x) = 0.04x$$

For 2018

$$\text{Difference between Railway and SSC students} = (0.45x - 0.25x) = 0.20x$$

As it can be seen that difference between no. of Railway students and SSC students is second lowest is in 2017.

75. (e): Let the total no. of students in 2018 be x

Then ATQ

$$(.45x - .30x) = 300$$

$$X=2000 \text{ and no. of Railway students in 2018} = 500$$

So, no. of Railway students in 2015 and 2017 will be 600 and 300 respectively

$$\text{So, no. of SSC students in 2015} = \left(\frac{600}{40} \times 32\right) = 480$$

$$\text{no. of SSC students in 2017} = \left(\frac{300}{30} \times 34\right) = 340$$

$$\text{average no. of SSC students in 2015 and 2017 together} = \frac{480 + 340}{2} = 410$$

Solution (76-80):

Let total number of students in civil = x

So, total number of students in IT = $2x$

$$\text{Total students in Mechanical} = 2x \times \frac{2}{3} = \frac{4x}{3}$$

$$\text{Total students in CS} = \frac{8x}{9}$$

$$\text{Total students in Electrical} = \left(\frac{8x}{9} + 120\right)$$

$$\text{Total students in Electronic} = \left(\frac{8x}{9} + 120\right) - 60 = \left(\frac{8x}{9} + 60\right)$$

Given,

$$x + \frac{8x}{9} + 60 = 400$$

$$9x + 8x = 3600 - 540$$

$$17x = 3060$$

$$x = 180$$

Stream	Students
Mechanical	$\frac{4 \times 180}{3} = 240$
Civil	180
CS	$\frac{8 \times 180}{9} = 160$
IT	$180 \times 2 = 360$
Electronic	$280 - 60 = 220$
Electrical	$160 + 120 = 280$

76. (d): Required difference = $360 - 280 = 80$

77. (b): Total CS students in college 'B'
= $720 - \left(\frac{120}{100} \times 240 + \frac{125}{100} \times 180\right)$
= $720 - 513$
= 207

78. (c): Required ratio = $\frac{160}{220} = 8 : 11$

79. (a): Required average = $\frac{240+180+360}{3} = 260$

80. (e): Required percentage = $\frac{240-220}{240} \times 100 = 8\frac{1}{3}\%$



ENGLISH LANGUAGE

81. (b): The correct answer is option b.
Refer to the THIRD paragraph where it mentions-
The Economic Survey cites several **reasons for the declining women workforce** **gender pay parity**..... pressures from society are the major stumbling blocks for women.

82. (e): The correct answer is option e.
Refer to the FOURTH, FIFTH & the LAST paragraph.
Where it mentions- While appointing **more women onto banking supervision** boards can supporting greater bank stability and financial sector resilience.
A change in mindset enable and empower women.

83. (c): The correct answer is option c.
Refer to the SECOND paragraph where it mentions-
From 30.3% in 1990, India's FLFP dropped to 20.3% percent in 2020.

84. (e): The correct answer is option e.
From the passage we can infer that - giving equal opportunities, education, work, salary to not only men but also to women will help to boost the economy.
Refer to the following lines from the passage which implies the same thing.
The Economic Survey finds that **60 per cent of women in India** in the productive age bracket of 15-59 years are **engaged in full-time housework**. India has been working towards becoming a \$5-trillion economy, **but it seems to do that minus its female population**.
Raising **women's labour force participation to that of men can boost GDP**as per the paper published by the World Economic Forum.

85. (e): The correct answer is option e.
Refer to the FOURTH & FIFTH paragraph where it mentions - To **improve female participation in the workforce**, the Economic Survey says, several reforms have been introduced such as **increase in maternal leave to 26 weeks**.....

Vocational and technical training..... help them develop marketable skills and better decision-making abilities.

86. (d): The correct answer is option d.
Ethos - The set of beliefs, ideas, etc. about the social behaviour and relationships of a person or group. The word "Custom" implies the same meaning & hence, it is the correct choice.
Spirit - (contextually incorrect) - To show enthusiasm and enjoyment.
Constitution - (contextually incorrect) - The set of political principles by which a state or organization is governed, especially in relation to the rights of the people it governs.
Character - (contextually incorrect) - The particular combination of qualities in a person or place that makes them different from others
Sentiment - (contextually incorrect) - A thought, opinion, or idea based on a feeling about a situation, or a way of thinking about something.

87. (c): The correct answer is option c.
Stumbling - As per the context of the sentence, here 'Stumbling' means an obstacle to progress.
Rectify - (Grammatically incorrect) - To correct by removing errors.
Overlook - (Grammatically incorrect) - To rise above or afford a view of.
Encouraging - (contextually incorrect) - Giving hope or promise.

- 88. (b):** The correct answer is option b.
Refer to the FIFTH paragraph, where it mentions –
The role of financial institutions in providing financial education, not only to clients but also to their own staff, needs to be better defined and further promoted.
- 89. (c):** The correct answer is option c.
Refer to the THIRD paragraph, where it mentions –
Results indicated that microfinance institutions **were still sorely focusing** on providing credit and credit facilities, which meant that it had positive effects on capital assets but **not the overall welfare of entrepreneurs**.
- 90. (d):** The correct answer is option d.
Refer to the last lines of SECOND paragraph, where it mentions –
The blue-chip financial institution **should encourage the youth** to start up their business and provide them with a **very good amount of loan at low interest rate**.
- 91. (b):** The correct answer is option b.
Consume - To waste something, or to not utilise something properly. (used in negative sense)
The word "Waste" implies the same meaning & hence, it is the correct choice.
Spend - (contextually incorrect) - To use time
Destroy - (contextually incorrect) - To damage something so badly that it cannot be used.
Lost - (Grammatically incorrect) - No longer possessed.
Invest - (Grammatically incorrect) - To make use of for future benefits or advantages.
- 92. (e):** The correct answer is option e.
The main theme that revolves around passage is to increase financial literacy among all by conducting programmes & promote entrepreneurship through financial institutions which will make people aware of the opportunities which they can avail to become entrepreneurs also prevent to become victims of any fraudulent activities.



- 93. (d):** The correct answer is option d.
The author talks about the need of financial literacy in order to bring awareness among people. Also, it informs us the important role of financial institutions.
Hence, the tone is 'Informative'.
- 94. (a):** The correct answer is option a.
Refer to the last lines of SECOND paragraph, where it mentions –
Access to finance represents one of the most significant challenges for entrepreneurs and for the creation, survival and growth of small businesses.
- 95. (a):** The correct answer is option a.
The error lies in part 'a' of the sentence.
Remove "Will" after 'When'. Usage of 'Will' after conjunctions referring to future time is incorrect. In the given sentence, we use "When" as a conjunction introducing a time clause thus, usage of 'Will' is inappropriate. So the correct phrase will be "when Smita finds".
- 96. (b):** The correct answer is option b.
The error lies in the part 'b' of the sentence.
Use article 'A' before the word 'Minimum' to make the sentence grammatically correct.
Here, the noun 'Experience' is modified by an adjective 'Minimum' hence usage of an indefinite article 'A' is important here.
- 97. (b):** The correct answer is option b.
The error lies in part 'b' of the sentence.
Replace 'Photograph' with 'photography' to make the sentence grammatically correct.
Photography - the art or process of producing images by the action of radiant energy and especially light on a sensitive surface (such as film or an optical sensor).
Whereas, Photograph - A picture or likeness obtained by photography.
As per the context, usage of the noun 'Photography' is grammatically & contextually correct. Hence, option 'b' is the correct choice.
- 98. (b):** The correct answer is option b.
The error lies in part 'b' of the sentence.
The proper construction is 'To forget him completely'.
After 'TO' it will take an infinitive form of the verb 'Forget' and not an adverb 'Completely'.

99. (d): The correct answer is option d.

The error lies in part 'd' of the sentence.

Replace 'Be inviting' with 'Invite' to make the sentence grammatically correct.

Be+ ing form is used when the tense is progressive, or continuous.

The given sentence states the activity which is of simple past tense. Hence, option 'd' is the correct choice.

100. (c): The correct answer is option c.

The error lies in part 'c' of the sentence.

Replace 'I see' with 'I have seen' to make the sentence grammatically correct.

The given sentence states an action which is of present perfect tense.

Present perfect tense – It is used to express an event that happened in the past (saw a movie) that has present consequences. (at present also it is an amazing movie for her)

101. (c): The correct answer is option c.

The proper arrangement will be - **DABFCE**.

D - It is the first sentence as it introduces the topic which is, "NASA Orbital Debris Program for -Removal of Space Debris."

A - It defines 'Space debris'. Hence, it is followed by sentence D.

B - It states the reason that causes space debris.

F - Sentence F states the impact of a large number of space junk formed in the space, which linked with the sentence B. Hence, BF forms the pair.

C - It states that it is (space junk) the responsibility of every space country.

E - It concludes by saying that this problem is an international challenge & an opportunity to save the space environment for future missions.

102. (e): The correct answer is option e.

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103. (b): The correct answer is option b.

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104. (e): The correct answer is option e.

The proper arrangement will be - **DABFCE**.

D - It is the first sentence as it introduces the topic which is, "NASA Orbital Debris Program for - Removal of Space Debris."

A - It defines 'Space debris'. Hence, it is followed by sentence D.

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C - It states that it is (space junk) the responsibility of every spacefaring country.

E - It concludes by saying that this problem is an international challenge & an opportunity to save the space environment for future missions.

105. (a): The correct answer is option a.

The proper arrangement will be - **DABFCE**.

D - It is the first sentence as it introduces the topic which is, "NASA Orbital Debris Program for - Removal of Space Debris."

A - It defines 'Space debris'. Hence, it is followed by sentence D.

B - It states the reason that causes space debris.

F - Sentence F states the impact of a large number of space junk formed in the space, which linked with the sentence B. Hence, BF forms the pair.

C - It states that it is (space junk) the responsibility of every spacefaring country.

E - It concludes by saying that this problem is an international challenge & an opportunity to save the space environment for future missions.

106. (d): The correct answer is option d.

Sentence A-F: Both the sentences connect well and are talking on the same subject.

A – Talks about teaching we get to love our country so we start following that blindly

F – It states the impact of whatever said in sentence A.

Sentence B- D: Sentence B talks about educating oneself, be open minded, open eyes (see the reality) and sentence D continues further by stating why it is important which is said in sentence B.

Remaining sentences are contextually incorrect & hence do not connect well.

107. (e): The correct answer is option e.

Sentence A- D: Both the sentences connect well and are talking on the same subject.

A – It talks about the influence of an advertisement on the minds of people.

D – It states the end result of those advertisements (that it makes people purchase them through those tactics)

Sentence C- E: both talk about hypertension among black people due to racial discrimination they face.

108. (a): The correct answer is option a.

Sentence C-F connects well.

C – It states that it was difficult to spend the initial days of the lockdown

F – It states the reason why it was difficult to spend time during lockdown.

109. (c): The correct answer is option c.

Sentence A-E connects well.

A – It states what one must do in order to achieve the goal

E – It states how to do that.

As both the sentences talk about the same topic & connect well without changing the meaning of the sentence. Hence, option (c) is the correct choice.

110. (b): The correct answer is option b.

Both the sentences are joined properly to form a grammatically correct and contextually meaningful sentences using the connector “But” and “However”.

But – It is used to connect ideas that contrast.

However – It is used to indicate a contrast or contradiction.

Therefore, the sentences thus formed using “But” and “However” are –

(i) We all want to be the best parents we can be for our children **but** there is often conflicting advice on how to raise a kid who is confident, kind and successful.

(ii) We all want to be the best parents we can be for our children **however** there is often conflicting advice on how to raise a kid who is confident, kind and successful.

111. (a): The correct answer is option a.

Both the sentences are joined properly to form a grammatically correct and contextually meaningful sentences using the connector “Even though.”

Even though – It is used to show that two ideas are opposing one another.

It is used as a stronger way to say “Though” or “Although”.

Therefore, the sentence thus formed using “Even though” is –

(i) Mohan always gets the highest grade in the school, **even though** he does not study regularly.

112. (c): The correct answer is option c.

Both the sentences are joined properly to form a grammatically correct and contextually meaningful sentence using the connector “In spite of.”

In spite of – It is used to express a contrast between two things.

Therefore, the sentence thus formed using “In spite of” is –

(i) Minal was happy with her job **in spite of** working with very little salary.

113. (a): The correct answer is option a.

Pay through the nose – It is an idiomatic expression which means, “To pay an excessive amount for something.”

Only sentence ‘a’ conveys the same meaning as that of the given idiom.

Hence, option (a) is the correct choice.

114. (c): The correct answer is option c.

Come to a halt – It is an idiomatic expression which means, “To stop abruptly.”

Only sentence ‘c’ conveys the same meaning as that of the given idiom.

Hence, option (c) is the correct choice.

115. (b): The correct answer is option b.

In the bag – It is an idiomatic expression which means, 'Assured of a successful result, certain to get or achieve something.

Only sentence 'b' conveys the same meaning as that of the given idiom.

Hence, option (b) is the correct choice.

116. (a): The correct answer is option a.

Know the ropes– It is an idiomatic expression which means, 'To understand or be familiar with the details or knowhow about a specific situation, task, job, or role'.

Only sentence 'a' conveys the same meaning as that of the given idiom.

Hence, option (a) is the correct choice.

117. (b): The correct answer is option b.

B-C can replace each other and form a meaningful sentence." Beneficiaries " and "Programme " can be exchanged as they do not alter the actual meaning of the given statement.

Hint here is – After 'scheduled to take part', 'Programme' should come. So, the word 'Beneficiaries' is inappropriate there.

The correct sentence thus form is - Amit Shah was scheduled to take part via video conferencing in the programme for the beneficiaries of over one lakh houses constructed in Madhya Pradesh under the Pradhan Mantri Awas Yojana.

118. (b): The correct answer is option b.

Both A-B & C-D can replace each other and form a meaningful sentence.

The correct sentence thus form is - The map shows the total forest area diverted for development and defence projects between 1991 and 2021.

119. (c): The correct answer is option c.

Both A-D & B-C can replace each other and form a meaningful sentence.

The correct sentence thus form is - Heavy taxation on crude oil combined with a significant uptick in international crude prices is responsible for this recent price rise.

120. (e): The correct answer is option e.

The given sentence is grammatically correct. All the words are placed properly and add meaning to the sentence.

The iPhone maker suggested users to place their watch on the charger and then wait for at least 30 minutes.

