

# IBPS Clerk Mains 2019 | Memory Based Paper | For Practice

## REASONING ABILITY

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

Eight persons sit in a row such that some of them are facing in the north direction and some are facing in the south direction.

**Note:** No two adjacent persons are sitting according to the English alphabetical series for example, P is not an immediate neighbor of both O and Q, and so on.

C sits third from one of the extreme ends of the row. A sits third to the left of C. Only one person sits between A and B. Three persons sit between D and E. As many persons sit to the left of E as to the left of H. H faces north direction. Immediate neighbors of C face same direction. Persons sitting at the extreme end faces the same direction. G sits to the left of F. E faces opposite direction as A. Immediate neighbors of G faces the opposite direction. G does not face north direction.

1. How many persons sit between B and E?  
(a) One                      (b) Two                      (c) Three  
(d) Four                      (e) More than four
2. Who among the following sits third to the right of H?  
(a) F                              (b) E                              (c) D  
(d) G                              (e) A
3. Four of the following five are alike in a certain way and hence form a group which of the following does not belong to the group?  
(a) FC                              (b) CH                              (c) GA  
(d) DC                              (e) HE
4. How many persons face south direction?  
(a) Four                              (b) Two                              (c) Three  
(d) One                              (e) More than four
5. Which of the following statement is not true?  
(a) H sits immediate left of E  
(b) A sits between H and C  
(c) D sits at an extreme end  
(d) C sits immediate left of F.  
(e) No one sits between A and G.

**Directions (6-7):** In each of the questions below. Some statements are given followed by conclusions/group of conclusions. You have to assume all the statements to be true even if they seem to be at variance from the commonly

known facts and then decide which of the given conclusion given in the options logically follow from the information given in the statements:

6. Statements: Only a few paint is color. No color is fabric. Only a few fabric is enamel.  
(a) Some fabric is paint  
(b) All paint can be fabric  
(c) All enamel can be color  
(d) Some paint is enamel  
(e) All color can be paint
7. Statements: Only a few brush is nail. Only a few home is buyer. Some buyer is nail.  
(a) Some buyer is not nail.  
(b) Some nail is not home  
(c) All brush is buyer  
(d) Some brush is not nail.  
(e) All home can be buyer.

**Directions (8-10):** Digits in the number given in each of the following questions are to be coded based on the codes and the conditions given below:

<b>Elements</b>	V	7	#	T	&	U	2	E	A
<b>Codes</b>	1	@	n	9	h	*	f	!	\$

**Conditions:**

- I. If first element is even number and last element is symbol then the codes for both of them is interchanged.
- II. If any vowel is preceded by an odd number then their codes will be code of the odd number.
- III. If the first element is odd number and last element is consonant then their codes will be the code of the first element.
- IV. If any consonant is succeeded by symbol then their codes will be the code of the symbol.

**Note:** In each case either no or one or more than one condition is followed.

8. What is the code for 27AU#?  
(a) n@\$fn                      (b) n@\*f                      (c) f@\*f  
(d) f@\*n                      (e) n\$@nf



9. What is the code for 7VU&A?  
(a) @1\*h\$ (b) \$1\*h@ (c) \$1\*h\$  
(d) @1\*h@ (e) None of these
10. What is the code for 7T&2V?  
(a) @h9f@ (b) @hh@f (c) @hhf@  
(d) 1h9f@ (e) 1h9f1

**Directions (11-13):** In each of the questions below. Some statements are given followed by conclusions/group of conclusions. You have to assume all the statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given conclusion given in the options logically follow from the information given in the statements:

11. Statements: Some nail is paint. Only a few paint is oil. All oil is dark.  
(a) No dark is paint  
(b) Some dark can be nail.  
(c) Some paint can be dark.  
(d) Some oil is nail.  
(e) Some oil is not paint.
12. Statements: Only a few brush is wallet. All brush is money. Some money is enamel.  
(a) Some enamel is wallet.  
(b) Some money is not brush.  
(c) All brush can be wallet.  
(d) Some enamel is not money.  
(e) All wallet can be brush.
13. Statements: No nail is pain. No body is pain. Only a few pain is arm.  
(a) Some arm is body.  
(b) Some body is nail.  
(c) All nail can be arm.  
(d) Some arm is not pain.  
(e) All arm can be body.
14. Six persons A, B, C, D, E and F go to office on six different days of the week from Monday to Saturday. A go before Wednesday. Only two persons go between A and D. Three persons go between D and F. B goes after D. E goes before D but not immediately before D. In which of the following days C go to office?  
(a) Monday (b) Tuesday (c) Wednesday  
(d) Thursday (e) None of these

**Directions (15-19):** Study the following information carefully and answer the questions given below:  
Eight persons A, B, C, D, E, F, G and H sits around a circular table facing towards the center of the table. All of them go to eight different cities.  
Only one person sits between F and the one who go to Pune. Three persons sit between the one who go to Pune and the one who go to Mumbai. D sits third to the left of the one who go to Pune. The one who is from Chennai sits second to the right of D. Three persons sit between the one who go to Chennai and the one who go to Bengaluru. H sits

second to the right of G. H go to Delhi. G sits third to the left of A. The one who go to Chandigarh sits third to the left of G. B sits immediate right of the person who go to Jaipur. C does not go to Mumbai and Kolkata. E does not go to Chandigarh.

15. Who among the following go to Chandigarh?  
(a) A (b) C (c) D  
(d) B (e) G
16. How many persons sit between A and G when counted from right of G?  
(a) Two (b) Three (c) Four  
(d) Five (e) One
17. Who among the following sits second to the left of the one who is from Chennai?  
(a) G (b) A (c) D  
(d) B (e) C
18. F go to which of the following city?  
(a) Mumbai (b) Jaipur (c) Bengaluru  
(d) Chennai (e) Kolkata
19. Which of the following is true regarding B?  
(a) B sits immediate left of D  
(b) B go to Chennai  
(c) B sits third right of A.  
(d) C is immediate neighbor of B.  
(e) B go to Bengaluru.

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

There are six persons of different weights. Three persons are heavier than Rohan. Two person's weight is in between Sohan and Geeta. Rajesh is heavier than Rakesh but lighter than Ram. Neither Rakesh nor Geeta is lightest person. Weight of 2<sup>nd</sup> heaviest person is 66kg. Weight of all persons are in whole numbers.

20. What is the weight of Sohan?  
(a) 67kg (b) 65kg (c) 64kg  
(d) 63kg (e) 62kg

**Direction (21-24):** Study the following information carefully and answer the questions given below:

P@Q: It means that P is in East of Q

P#Q: It means that P is in West of Q

P\$Q: It means that P is in North of Q

P%Q: It means that P is in South of Q

P(7)\$Q means that P is 7m North of Q

P\$@Q means that P is in North-east of Q

Paul and Raj are starting their journey from point V and U respectively and both reaches at point W as per the given information-

**Paul-** R(13)#V, S(8)%R, T(5)@S, X(4)%T, Y(10)#X, W(15)\$Y

**Raj-** J(5)#U, K(11)\$, L(11)@K, M(4)\$L, N(5)@M, W(10)%N

21. If point A(2)%R then, what is the direction and shortest distance of A with respect to U?

- (a) A(15)\$@U (b) A(16)@U (c) A(16)\$@U  
(d) A(15)@U (e) None of these

22. Which of the following is true?

- (a) M\$@X (b) U%@N (c) U#R  
(d) J%#V (e) None is true

23. If B(5)@L and C(8)#W are true then, what is the shortest distance between B and C?

- (a) 5m (b) 10m (c) 15m  
(d) 20m (e) None of these

24. U is in which direction with respect to V?

- (a) U\$@V (b) U%@V (c) U%#V  
(d) U#V (e) None is true

**Direction (25-29):** Study the following information carefully and answer the questions given below:

Eleven persons buy things one after another. Only five persons buy things after P. Three persons buy things between P and Q. R buy things after S and before T. There are as many persons buy things before U as after V. More than three persons buy things between W and X who buy things just after P. Y buy things before Z and after R. No one buy things after T. Y buy things just after V. U buys after Q.

25. Who among the following buy things between X and Z?

- (a) U and Y (b) U and V (c) V and Y  
(d) P and Y (e) None of these

26. Four of the following five are alike in certain way and hence form a group, find the one which does not belong to that group?

- (a) QR (b) UX (c) WU  
(d) XY (e) PY

27. Which of the following statement is true?

- (a) R buy things before U  
(b) More than two persons buy things before S  
(c) No one buy things before Q  
(d) P buy things after Z  
(e) None is true

28. How many persons buy things between Y and R?

- (a) Three (b) Five (c) Seven  
(d) Four (e) None of these

29. Who among the following buy things just after U?

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

**Direction (30-32):** Study the following information carefully and answer the questions given below:

A meaningful eight letter word is going to be formed. No two letters of this word are same. There are three letters between S and N. C is 2<sup>nd</sup> to the left of U which is to the left of T. D is either at extreme left or at extreme right. There are at least two letters between D and O which is immediate left of U. T is at immediate right of N. I is not at extreme end.

30. What is the position of I with respect to C?

- (a) 3<sup>rd</sup> to the right (b) 3<sup>rd</sup> to the left (c) 2<sup>nd</sup> to the right  
(d) 2<sup>nd</sup> to the left (e) None of these

31. Which of the following letter is 2<sup>nd</sup> from extreme left end?

- (a) C (b) I (c) O  
(d) U (e) None of these

32. Which of the following is true regarding I?

- (a) I is not an immediate neighbor of D  
(b) Three letters are between I and C  
(c) S is at immediate left of I  
(d) T is not at extreme end  
(e) None is true

**Direction (33-37):** Study the following information carefully and answer the questions given below:

Eight persons were born at different months in different years i.e. 1983, 1984, 1985, 1986. Two persons were born in each year. Ages are measured from 1<sup>st</sup> January 2020. Every person was born on 1<sup>st</sup> of every month.

There are 11 months gap between the births of L and K. Q and L were born in the month of 30 days. J is younger than N. P and L were born in same year. O was born just before K who is youngest, and both were born in the month which have 31 days. M is not less than 37 year. There are as many persons were born before Q as after L. There are 17 months difference between the age of M and J. There are 13 months difference between the ages of P and O. P was born before April. N was born on October.

33. What is the age of Q?  
 (a) 35 years 7 months  
 (b) 35 years 8 months  
 (c) 35 years 9 months  
 (d) 36 years 3 months  
 (e) None of these
34. Who among the following was born on September 1985?  
 (a) N (b) M (c) O  
 (d) Q (e) None of these
35. Which of the following is true?  
 (a) N was born on June  
 (b) Q was born before the person who was born on September  
 (c) L was born before July  
 (d) Three persons were born between N and O  
 (e) None is true
36. Four of the following five are alike in certain way and hence form a group, find the one which does not belong to that group?  
 (a) M (b) N (c) J  
 (d) O (e) K
37. In which of the following month youngest person was born?  
 (a) March (b) May (c) June  
 (d) August (e) None of these

**Direction (38-42):** Study the following information carefully and answer the questions given below:

In a certain code language:

“group rate drive dare” is coded as “@£ \$# ©¥ ©®”

“nose final read less” is coded as “@¥ αμ %¥ Ω%”

“gear other mind most” is coded as “@¥ £& ®β Ω¥”

38. What is the code of “sure”?  
 (a) ©® (b) &α (c) %£  
 (d) ¥€ (e) None of these
39. What may be the code of “green grass”?  
 (a) Ω© £∅ (b) Ω\$ ∅© (c) ∅\$ Ω©  
 (d) £∅ Ω\$ (e) None of these
40. If “epic” is coded as “⊃Ω” then, what is the code of “care”?  
 (a) # \$ (b) \* & (c) @ %  
 (d) ⊃ ⊕ (e) None of these
41. Which of the following word may have code “&£”?  
 (a) Image (b) True (c) This  
 (d) Then (e) None of these
42. Which of the following may have the code “⊃Ω %©”?  
 (a) Night Match (b) Great Walk (c) Close Fight  
 (d) Nice Draw (e) None of these

**Directions (43-47):** In the following questions, the symbols @, #, \$, % and & are used with the following meaning as illustrated below-

‘P@Q’ means ‘P is neither smaller than nor equal to Q’

‘P#Q’ means ‘P is neither greater than nor equal to Q’

‘P\$Q’ means ‘P is neither smaller than nor greater than Q’

‘P%Q’ means ‘P is not greater than Q’

‘P&Q’ means ‘P is not smaller than Q’

Now in each of the following questions assuming the given statements to be true, find which of the three conclusions I, II and III given below them is/are **definitely true** and give your answer accordingly.

43. **Statement:** N@V\$W, W%K#L, L%R

**Conclusions:** I. L@N II. K#R  
 III. V%R

- (a) Only I  
 (b) Both II and III  
 (c) Only I and II  
 (d) Only II  
 (e) All I, II, III

44. **Statement:** J#K&L, L@M\$O, O@N%G

**Conclusions:** I. G&M II. K@O  
 III. M@G

- (a) Either I or III  
 (b) II and Either I or III  
 (c) Only I  
 (d) I and Either II or III  
 (e) Both I and II

45. **Statement:** N#M&L; L#J&O; O&V

**Conclusions:** I. M@N II. J#V  
 III. L%N

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

46. **Statement:** A@B&D; D%E#F; H@G&D

**Conclusions:** I. D#A II. F@D  
 III. H%E

- (a) Both I and II (b) Only II (c) Both II and III  
 (d) Only I (e) All I, II, III

47. **Statements:** H#G; H#I&J; M#F%I

**Conclusions:** I. G%J II. F@H  
 III. I@M

- (a) Both I and II (b) Only I (c) Only III  
 (d) Both I and III (e) Only II

**Directions (48-50):** Each of the questions below consists of a question and two statements numbered as I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read all the two statements and give answer.

48. Five persons live on a building of five floors. The ground floor is numbered as 1, floor just above is numbered as 2 and so on till the topmost floor which is numbered as 5. On which floor X lives?

- I. A lives above 3<sup>rd</sup> floor. Two persons live between X and Y. X lives above A.  
 II. Two persons live between X and Y. X lives just above C. Y lives below X.
- (a) Only I  
 (b) Only II  
 (c) Either I or II  
 (d) Neither I nor II  
 (e) Both I and II

49. What is the direction of L with respect to O?

- I. A is 10m north of L. M is 25m north of L. B is 10m south of O.  
 II. M is 5m west of B. A is 15m south of M. L is 10m south of A.
- (a) Either I or II (b) Only II (c) Both I and II  
 (d) Only I (e) Neither I nor II

50. Five students P, Q, W, S and V have different heights. Who is the tallest person among them?

- I. P is taller than Q, but he is not the tallest. Q is shorter than W. S is shorter than V.  
 II. Only three persons are shorter than P. Q is shorter than P and V. W is taller than S.
- (a) Only II (b) Neither I nor II (c) Only I  
 (d) Either I or II (e) Both I and II

## QUANTITATIVE APTITUDE

**Directions (51–56):** Read the data carefully and answer the questions.

There are 3 colleges A, B, C offering 3 courses mechanical engineering (ME), chemical engineering (CE) & electrical engineering (EE).

**College A:** Number of students in ME is 40 less than that of in EE and number of students in CE is 50% more than that of in ME.

**College B:** Number of students in EE is 20 less than that of in EE in college A. Number of students in CE is 340 which is 40 more than that of in CE in college A. Number of students in EE is  $22\frac{2}{9}\%$  more than that of in ME.

**College C:** Number of students in ME is 40% less than that of in ME in college A. Number of students in CE is 40 less than that of in ME.

Total students in EE in all colleges together are 780.

51. How many students are in college C?  
 (a) 620 (b) 740 (c) 560  
 (d) 680 (e) 520
52. If 10% students of ME course from college A shifted to CE course in college C, then what is the difference between total number of students in CE in college C now and average of students in ME in all colleges now?  
 (a) 60 (b) 380 (c) 260  
 (d) 80 (e) 180
53. Number of students in EE in college B are what percent more/less than number of students in ME in college C ?  
 (a) 75% (b)  $87\frac{1}{3}\%$  (c)  $83\frac{1}{3}\%$   
 (d)  $66\frac{2}{3}\%$  (e) 50%

54. What is the ratio of total number of students in ME & CE together in college A to total number of students in CE & EE together in college B?

- (a) 23 : 27 (b) 25 : 28 (c) 26 : 25  
 (d) 25 : 26 (e) 27 : 28

55. What is the difference between average of total number of students in EE in all colleges and average of total number of students in CE in all colleges?

- (a) 30 (b) 60 (c) 40  
 (d) 20 (e) 50

56. Total students in college C are what percent of total students in college A ? (approx.)

- (a) 79% (b) 70% (c) 100%  
 (d) 73% (e) 85%

57. A shopkeeper sets MRP of a product such that after giving 10% discount, he earns 12.5% profit. What will be his profit/loss percent if he allows a discount of 25%?

- (a) 5% (b) 10.45% (c) 8.33%  
 (d) 6.25% (e) 9.09%



58. A alone can fill a tank in 16 mins and B alone can fill the same tank in 'X' mins. C alone can empty the tank in 12 mins. A, B, and C together take  $34\frac{2}{7}$  min to fill the tank. What is the time taken by B alone to fill the tank?  
 (a) 12 min (b) 16 min (c) 20 min  
 (d) 24 min (e) 18 min

59. A container contain 96 litre mixture of milk and water out of which 35% is water. 20 lit of mixture is taken out and 10 litre milk & 16 litre water are added in remaining mixture. Find the difference between quantity of milk and water in the final mixture after replacement.  
 (a) 15.4 lit (b) 16.8 lit (c) 18.2 lit  
 (d) 21.4 lit (e) 19.8 lit

60. Train A having length 180 m crosses a platform thrice of its length in 36 sec. Train B having speed of 63 kmph crosses a standing man in 8 sec. find the time taken by both trains to cross each other when running in same direction.  
 (a) 100 sec (b) 120 sec (c) 128 sec  
 (d) 64 sec (e) 92 sec

**Directions (61-66):** Given table shows the total number of boys & girls in a class in 5 different years and percentage of boys & girls who participated in an event and percentage of total students who did not participate in event. Some data are missing which you have to calculate as per the information provided in question. Read the data carefully and answer the questions.

Year	Total number of Boys & Girls in class	% of boys participated in event	% of girls participated in event	% of (boys + girls) not participate d in event
2015	---	65	---	30
2016	360	---	25	15
2017	180	25	---	25
2018	300	---	80	10
2019	---	45	---	40

61. If there are 20% more students in 2019 as compared to previous year and number of girls who didn't participate in 2019 are 12, then what is the difference between no. of boys who participated in 2019 and total students who didn't participate in 2016?  
 (a) 68 (b) 54 (c) 72  
 (d) 44 (e) 84

62. Find ratio of no. of students who didn't participate in 2017 to no. of boys who participated in 2018 if all boys participated in 2018?  
 (a) 3 : 10 (b) 13 : 10 (c) None of these  
 (d) 5 : 8 (e) 7 : 10

63. If average of total no. of students in 2015, 2016 & 2017 is 260 and 23 girls didn't participate in 2015,

then find the difference between no. of boys and girls who participated in 2015?

(a) 6 (b) 36 (c) 42  
 (d) 14 (e) 26

64. Find average no. of students who didn't participate in 2016, 2017 & 2018.

(a) 39 (b) 44 (c) 41  
 (d) 46 (e) 43

65. If ratio of total boys to total girls in 2018 is 3 : 2, then boys who didn't participate in 2018 are what percent of total girls who participated in 2018?

(a)  $16\frac{2}{3}\%$  (b) 25% (c)  $6\frac{1}{4}\%$   
 (d) 5% (e)  $8\frac{1}{3}\%$

66. If there are 200 boys in class in 2019 and number of girls who didn't participate in 2019 is 5 more than no. of students who didn't participate in 2017 then what is the ratio of no. of girls who participated in 2019 to total students who participated in 2018?

(a) 5 : 9 (b) Cannot be determined  
 (c) 20 : 27 (d) 5 : 8 (e) 5 : 6

**Directions (67-68):** Read the information carefully and answer the questions.

A and B started a business by investing Rs 6000 & Rs 12000 respectively. A left business after 'X' months and at same time C joined B with Rs 7000. At the end of year, ratio of their profit share (A : B : C) is 18 : 48 : Z.

67. Find 'X'.

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

68. Find value of Z.

(a) 27 (b) 18 (c) 24  
 (d) 21 (e) 15

69. Present age of Father and mother is in ratio of 12 : 11 and after 12 years, this ratio becomes 15 : 14. Age of father is 22 years more than his son and age of mother is 20 years more than that of her daughter. Find sum of present age of son & daughter.

(a) 54 yrs (b) 48 yrs (c) 52 yrs  
 (d) 46 yrs (e) 50 yrs

70. Difference between total CI and total SI on a certain sum at 20% per annum for 2 years is Rs 420. What will be the simple interest earned on same sum at 25% per annum for 3 years?

(a) Rs 5725 (b) Rs 7875 (c) Rs 6525  
 (d) Rs 7000 (e) Rs 7375

**Directions (71-75):** What approximate value should come in place of question mark (?) in following questions. You are **not** expected to calculate the exact value.

71.  $40.05 \div 4.89 + ? = 72.93 - 18.95$

(a) 36 (b) 42 (c) 52  
 (d) 46 (e) 58

72.  $9.87 \times 16.08 - 55.03 \div 10.92 = ? + 54.98$

- (a) 100 (b) 115 (c) 85  
(d) 92 (e) 108

73.  $63.08 + 67.98 - 43.11 + ? = 89.93$

- (a) 6 (b) 15 (c) 2  
(d) 11 (e) 17

74.  $79.87 + 23.06 = 12.98 \times 7.13 + ?$

- (a) 2 (b) 21 (c) 7  
(d) 17 (e) 12

75.  $520.07 \div 13.02 - 3.89 \times 10.09 + 33.88 = ?$

- (a) 39 (b) 34 (c) 29  
(d) 25 (e) 45

76. A and B invested Rs 6000 and Rs 12000 respectively in a business. After 6 months, C joined them and B left after 9 months from the starting. If profit share of C at the end of one year is Rs. 18900 out of total profit which is Rs. 50400, then find amount invested by C?

- (a) Rs 18000 (b) Rs 15000 (c) Rs 17000  
(d) Rs 16000 (e) Rs 14000

77. The area of a square is  $1767 \text{ m}^2$  (approx.) and length of rectangle is one-third of side of that square. If breadth of rectangle is 4m less than length of rectangle, then find difference between area of square and area of rectangle.

- (a)  $1609 \text{ m}^2$  (b)  $1627 \text{ m}^2$  (c)  $1664 \text{ m}^2$   
(d)  $1729 \text{ m}^2$  (e)  $1709 \text{ m}^2$

78. A person sold an article for Rs 802. If it is sold for Rs 38 more, then selling price would be 20% more than cost price. What is the profit percent when article is sold at actual selling price?

- (a) 18.75% (b) 16.67% (c) 20%  
(d)  $11\frac{1}{9}\%$  (e)  $14\frac{4}{7}\%$

79. A boat takes 4 hrs to cover 'D' km in upstream and takes 3 hours to cover 'D-2' km in downstream. If speed of stream is 2 kmph, then find distance covered by boat in upstream in 3 hrs.

- (a) 44 km (b) 48 km (c) 42 km  
(d) 56 km (e) 54 km

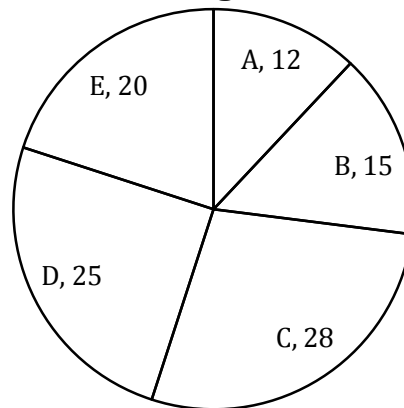
80. A dice is rolled twice what is the probability that the number in the second roll will be lesser than that in the first?

- (a)  $\frac{1}{4}$  (b)  $\frac{1}{2}$  (c)  $\frac{7}{12}$   
(d)  $\frac{5}{12}$  (e)  $\frac{1}{6}$

**Direction (81-86):** Study the following data carefully and answer the following questions.

The pie chart shows the percentage distribution of total girls in five different classes in March month of 2019 and table shows the percentage of boys more or less than the girls in respective class for the same month and year.

**Percentage of Girls**



CLASS	% of boys more/less than girls
A	50% More
B	30% More
C	25% Less
D	24% More
E	25% More

81. What is the central angle for the percentage distribution of girls in class C?

- (a)  $100.8^\circ$  (b)  $100.0^\circ$  (c)  $102.8^\circ$   
(d)  $98.8^\circ$  (e)  $90.8^\circ$

82. In April 2019, number of girls and boys in class C are increased by  $14\frac{2}{7}\%$  and  $33\frac{1}{3}\%$  respectively as compared to previous month. Total students in class C in April 2019 are what percent more or less than total students in class C in March 2019?

- (a)  $25\frac{2}{7}\%$  (b)  $24\frac{2}{7}\%$  (c)  $28\frac{4}{7}\%$   
(d)  $30\frac{2}{7}\%$  (e)  $28\frac{2}{7}\%$

83. What is the ratio of number of boys in class B to number of boys in class E?

- (a) 33 : 50 (b) 39 : 49 (c) 44 : 47  
(d) 37 : 40 (e) 39 : 50

84. What is the average of number of boys in class A, D and E if number of boys in class B are 195?

- (a)  $245\frac{2}{3}$  (b)  $240\frac{2}{3}$  (c)  $236\frac{2}{3}$   
(d)  $241\frac{2}{3}$  (e)  $246\frac{2}{3}$

85. If the difference between boys and girls in class D are 216, then what is the sum of boys in class A and girls in class C?

- (a) 1656 (b) 1545 (c) 1600  
(d) 1664 (e) 1520

86. Total students in class B are what percent more/less than total students in class E ?

- (a)  $27\frac{8}{9}\%$       (b)  $27\frac{5}{9}\%$       (c)  $25\frac{7}{9}\%$   
 (d)  $25\frac{5}{9}\%$       (e)  $23\frac{1}{3}\%$

**Direction (87-91):** Following are the questions based on two statements and answer the following based on the given statements.

87. C alone can complete the work in 15 days. In what time C and A together can complete the whole work.

**Statement I.** A is 25% more efficient than B and B alone can complete the work in 20 days

**Statement II.** Difference between the time taken by A alone and B alone to complete the work is  $22\frac{1}{2}$  days and time taken by C alone to finish the work is 10% more than the time taken by A and B together to complete the work.

- (a) Statement I alone is sufficient to answer the question while statement II alone is not sufficient to answer the question  
 (b) Statement II alone is sufficient to answer the question while statement I alone is not sufficient to answer the question  
 (c) Both statements I and II together are required to answer the question.  
 (d) Either the statement I alone or Statement II alone is sufficient to answer the question  
 (e) Question cannot be answered from any of the given statements or from both the statements.

88. Side of square is 'a' cm. Find the value of 'a' ?

**Statement I.** Square is inscribed in a circle C1. Radius of circle C1 is 21cm.

**Statement II.** Circle C2 is inscribed in the square. Radius of circle C2 is 28cm.

- (a) Statement I alone is sufficient to answer the question while statement II alone is not sufficient to answer the question  
 (b) Statement II alone is sufficient to answer the question while statement I alone is not sufficient to answer the question  
 (c) Both statements I and II together are required to answer the question.  
 (d) Either the statement I alone or Statement II alone is sufficient to answer the question  
 (e) Question cannot be answered from any of the given statements or from both the statements.

89. A boat covers 35 km in upstream and 35km in downstream in total 4 hours. In what time it will cover 50km upstream?

**Statement I.** Sum of upstream and downstream speed of the boat is 36km/h

**Statement II.** Speed of water current is 20% of speed of boat in still water.

- (a) Statement I alone is sufficient to answer the question while statement II alone is not sufficient to answer the question  
 (b) Statement II alone is sufficient to answer the question while statement I alone is not sufficient to answer the question  
 (c) Both statements I and II together are required to answer the question.  
 (d) Either the statement I alone or Statement II alone is sufficient to answer the question  
 (e) Question can not be answered from any of the given statements or from both the statements.

90. A train crosses a platform of twice of its length in 48seconds. Find the speed of train?

**Statement I.** Train crosses a man walking at a speed of 4m/s in the same direction as the direction of the train in 20 seconds

**Statement II.** After covering half of the platform, due to fault in the engine it covers remaining distance at a speed of which is 60% of its initial speed.

- (a) Statement I alone is sufficient to answer the question while statement II alone is not sufficient to answer the question  
 (b) Statement II alone is sufficient to answer the question while statement I alone is not sufficient to answer the question  
 (c) Both statements I and II together are required to answer the question.  
 (d) Either the statement I alone or Statement II alone is sufficient to answer the question  
 (e) Question cannot be answered from any of the given statements or from both the statements.



91. Let  $x$  be total number of balls in a bag. Balls are of three different colors i.e. black, white and red. Calculate  $(x-1)$ .

**Statement I.** Probability of getting a black ball is  $\frac{1}{6}$ , a red ball is  $\frac{1}{6}$  & a white ball is  $\frac{2}{3}$ .

**Statement II.** If one white ball is lost, probability of not getting a white ball is  $\frac{8}{23}$  and initial number of white balls in bag is less than 27.

(a) Statement I alone is sufficient to answer the question but statement II alone is not sufficient to answer the question.

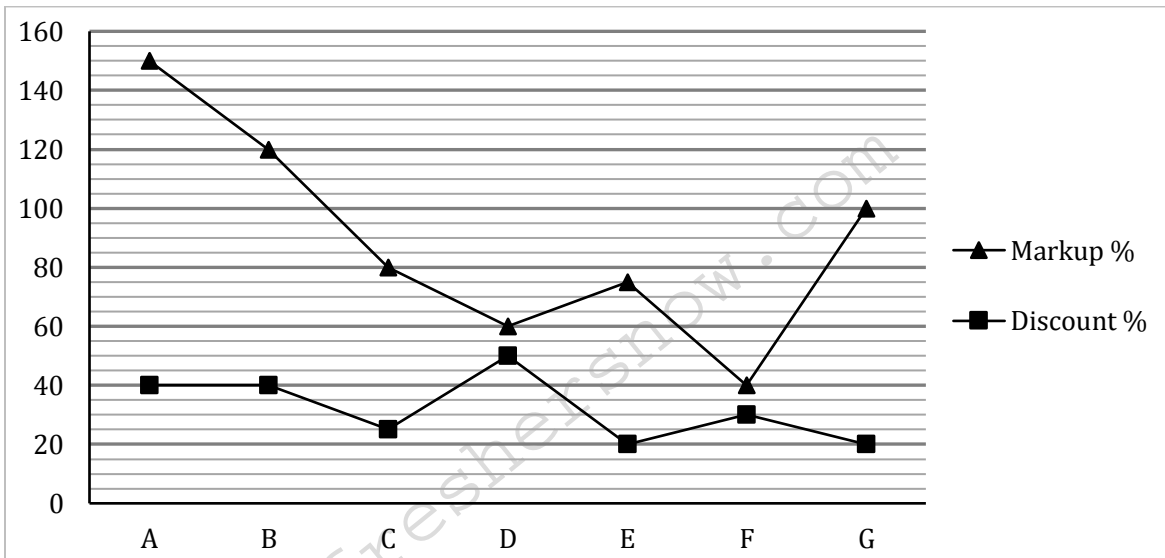
(b) Statement II alone is sufficient to answer the question but statement I alone is not sufficient to answer the question.

(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.

**Direction (92-97):** Line chart given below shows markup percent more than CP and discount percent given on MRP of seven different articles sold by a shopkeeper. Study the data carefully and answer the following questions.



92. Cost price of article D is Rs.320. If article D is sold at 20% profit rather than marking up and giving discount, then find the difference between the selling price obtained in both cases. (in Rs.)  
 (a) 120 (b) 128 (c) 90  
 (d) 144 (e) 165

93. If difference between selling price and cost price of article G is Rs.150, then find the selling price of article G.  
 (a) Rs. 300 (b) Rs. 420 (c) Rs. 350  
 (d) Rs. 250 (e) Rs. 275

94. If selling price of article B is same as selling price of article E, then cost price of article B is what percent more than cost price of article E?  
 (a)  $7\frac{2}{33}\%$  (b)  $9\frac{2}{33}\%$  (c)  $5\frac{2}{33}\%$   
 (d)  $4\frac{2}{33}\%$  (e)  $6\frac{2}{33}\%$

95. What is the ratio of marked price to selling price of article C?  
 (a) 4 : 3 (b) 3 : 4 (c) 4 : 7  
 (d) 7 : 4 (e) 4 : 5

96. Total selling price of article A and article B together is what percent more than the marked price of article G? (It is given that cost price of all articles are same)  
 (a) 48% (b) 42% (c) 41%  
 (d) 45% (e) 47%

97. Cost price of article 'B' is Rs.100 more than Cost price of article 'C' and marked price of article 'B' is Rs.260 more than marked price of article 'C'. Find the difference between selling price of article B and article C?  
 (a) Rs. 128 (b) Rs. 124 (c) Rs. 136  
 (d) Rs. 180 (e) Rs. 156

98. Difference of speed of boat in downstream and upstream is 7km/hr and the time taken by the boat to travel 45 km in downstream is 80 minutes more than the time taken to travel 13 km in upstream. Due to cyclone, speed of current becomes twice and thus it can cover D km in upstream in time which is equal to new speed of current. Find D? (Note: speed of boat in still water is multiple of 5)  
 (a) 30 (b) 24 (c) 18

(d) 21

(e) 27

99. Ravi and Sneha got married 10 years ago and at that time ratio of their ages was 5:4. Ratio of present age of Ravi and Sneha is 7:6. After marriage they had seven children including a triplet and a twin. The ratio of present age of triplet, twin, sixth and the seventh child is 4:3:2:1. Find the largest possible value of the present total age of the family.

(a) 121

(b) 107

(c) 101

(d) 93

(e) None of the above

100. Shivam invested Rs 3 lac in a scheme which is providing interest rate of 'r'% per annum at CI and this scheme doubles the sum invested in  $\frac{72}{r}$  years which is two times of rate of interest provided by the scheme. Find the total amount received by Shivam at the end of 48 years (in lac)?

(a) 45

(b) 50

(c) 64

(d) 32

(e) 48

## ENGLISH LANGUAGE

**Directions (101-106):** Read the following passage and answer the following questions. Some words are highlighted to help you answer some of the questions.

AI has several positive applications but the capability of AI systems to learn from experience and to perform autonomously for humans makes AI the most disruptive and self-transformative technology of the 21st century. If AI is not regulated properly, it is bound to have unmanageable implications. Imagine, for instance, the electricity supply suddenly stops while a robot is performing a surgery, and access to a doctor is lost? And what if a drone hits a human being? These questions have already confronted courts in the U.S. and Germany. All countries, including India, need to be legally prepared to face such kind of disruptive technology.

Predicting and analysing legal issues and their solutions, however, is not that simple. For instance, criminal law is going to face drastic challenges. What if an AI-based driverless car gets into an accident that causes harm to humans or damages property? Who should the courts hold liable for the same? In the U.S., there is a lot of discussion about regulation of AI. Germany is working on blemish present in it, like certain ethical rules for autonomous vehicles stipulating that human life should always have priority over property or animal life. China, Japan and Korea are following Germany in developing a law on self-driven cars. In India, NITI Aayog released a policy paper, 'National Strategy for Artificial Intelligence', in June 2018, which considered the importance of AI in different sectors. The Budget 2019 also proposed to launch a national programme on AI. While all these developments are taking place on the technological front, no comprehensive legislation to regulate this growing industry has been formulated in the country till date.

Apart from these aspects, strategists have also offered sober explorations of the future relationship between AI

and nuclear weapons. Some of the most widely received **musings** on the issue, including a recent call for an AI-enabled "dead hand" to update America's aging nuclear command, control, and communications infrastructure, tend to obscure more than they \_\_\_\_\_ due to an insufficient understanding of the technologies involved. An appreciation for technical detail, however, is necessary to arrive at realistic assessments of any new technology, and particularly consequential where nuclear weapons are concerned. Some have warned that advances in AI could erode the fundamental logic of nuclear deterrence by enabling counter-force attacks against heretofore concealed and mobile nuclear forces. Such secure second-strike forces are considered the backbone of effective nuclear deterrence by assuring retaliation. Were they to become vulnerable to pre-emption, nuclear weapons would lose their deterrent value.

The exponential growth of sensors and data sources across all warfighting domains has analysts today facing an overabundance of information. Some strategists warn that the same AI-infused capabilities that allow for more prompt and precise strikes against time-critical conventional targets could also undermine deterrence stability and increase the risk of nuclear use. Specifically, AI-driven improvements to intelligence, surveillance, and reconnaissance would threaten the survivability of heretofore secure second-strike nuclear forces by providing technologically advanced nations with the ability to find, identify, track, and destroy their adversaries' mobile and concealed launch platforms. Transporter-erector launchers and ballistic missile submarines, traditionally used by nuclear powers to enhance the survivability of their deterrent forces, would be at greater risk. A country that acquired such an exquisite counter-force capability could not only hope to limit damage in case of a spiraling nuclear crisis but also negate its adversaries' nuclear deterrence "in one swift blow." Such an ability would undermine the nuclear deterrence calculus



whereby the costs of imminent nuclear retaliation far outweigh any conceivable gains from aggression.

**101.** In accordance with the passage which of the following statement(s) negates the advancement of the AI technology?

- (a) AI would diminish the whole idea of having a nuclear deterrence in the first place
- (b) Absence of international monitoring authority for AI would lead to unbridled use
- (c) Non-existence of jurisdictional responsibility of use of AI
- (d) Both (a) and (c)
- (e) None of these

**102.** Which of the following argument(s) can be rectified after reading the given passage?

- (a) Machine intelligence is much different from human intelligence
- (b) AI-improved counter-force capability would be considered as good enough to order a strike
- (c) Use of AI in National security will make the conventional warfare strategies obsolete.
- (d) AI is considered to be inanimate that holds the producer of the product liable for harm
- (e) None of these.

**103.** Which of the following is similar to 'MUSINGS' as used in the passage?

- (a) contemplation (b) decimate (c) nurture
- (d) tickle (e) None of these.

**104.** 'No comprehensive legislation to regulate this growing industry has been formulated in the country till date' Why?

- (a) dearth of technical whereabouts of the AI based mechanism in the concerned authorities
- (b) dual use of AI i.e. both military and non-military.
- (c) owing to political benefits of mass surveillance
- (d) Both (b) and (c)
- (e) None of these.

**105.** Select appropriate filler for the blank given in the passage.

- (a) discard (b) flout (c) embellish
- (d) illuminate (e) None of these.

**106.** Which of the following suggestions regarding improvement of the AI have been suggested in the passage?

- (a) Agreeing with the legal as well psychological aspects in different situations
- (b) Ability to prioritize in life threatening situations
- (c) prone to various manipulation that can alter decision making ability

- (d) safeguard from hacking various malicious groups and organization
- (e) None of these.

**Directions (107-111):** In the following questions a sentence is provided which is divided in different parts. One of these parts is highlighted and is free from grammatical error. Remaining parts may or may not be grammatically or contextually correct. Choose the letter corresponding to the correct part as your answer.

**107.** Noting Kathak exponent Manjari Chaturvedi (A)/is in for a shock when her (B)/qawwali performance was stopped midway/ by officials of the Uttar Pradesh government during (C)/a official cultural programme at a Lucknow (D)

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

**108.** In a fortnight, about 30 peoples will (A)/join the National Cyber Forensic Lab to (B)/assist security agencies in preventing,/ containing and investigate complex (C)/cybercrimes along the country(D)

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

**109.** The fourth edition of 'The Death Penalty in India: Annual Statistics' (A)/published by Project 39A of NLU-Delhi said (B)/the number of death sentences awarded/ for murders involving sexual offences(C)/ in 2019 was at the highest in four years(D)

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

**110.** The NGT have warned that local (A)/ bodies will be liable to pay/ a compensation of Rs. 1 millions per month (B)/for a population of above 1 million if there was (C)/continued failure to treated generated waste. (D)

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

**111.** Under the NDPS Act, if there was prior(A)/ information about the recovery of narcotic drugs(B)/ or psychotropic substances to any person(C)/ the power of arrest such a person(D)/ is not vested with the police officer.

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

**Directions (112-117):** Read the following passage and answer the following questions. Some words are highlighted to help you answer some of the questions.

The sweetest victory is the one that's most difficult. The one that requires you to reach down deep inside, to fight with everything you've got, to be willing to leave everything out there on the battlefield—without knowing, until that do-or-die moment, if your heroic effort will be

enough. Society doesn't reward defeat, and you won't find many failures documented in history books. The exceptions are those failures that become steppingstones to later success. Such is the case with Thomas Edison, whose most memorable invention was the light bulb, which purportedly took him 1,000 tries before he developed a successful prototype. "How did it feel to fail 1,000 times?" a reporter asked. "I didn't fail 1,000 times," Edison responded. "The light bulb was an invention with 1,000 steps."

Unlike Edison, many of us avoid the prospect of failure. In fact, we're so focused on not failing that we don't aim for success, settling instead for a life of \_\_\_\_\_. When we do make missteps, we **gloss** over them, selectively editing out the miscalculations or mistakes in our life's résumé. "Failure is not an option," NASA flight controller Jerry C. Bostick reportedly stated during the mission to bring the damaged Apollo 13 back to Earth, and that phrase has been etched into the collective memory ever since. To many in our success-driven society, failure isn't just considered a non-option—it's deemed a deficiency, says Kathryn Schulz, author of *Being Wrong: Adventures in the Margin of Error*. "Of all the things we are wrong about, this idea of error might well top the list," Schulz says. "It is our meta-mistake: We are wrong about what it means to be wrong. Far from being a sign of intellectual inferiority, the capacity to err is crucial to human cognition."

When we take a closer look at the great thinkers throughout history, a willingness to take on failure isn't a new or extraordinary thought at all. From the likes of Augustine, Darwin and Freud to the business mavericks and sports legends of today, failure is as powerful a tool as any in reaching great success. "Failure and defeat are life's greatest teachers [but] sadly, most people, and particularly conservative corporate cultures, don't want to go there," says Ralph Heath, managing partner of Synergy Leadership Group and author of *Celebrating Failure: The Power of Taking Risks, Making Mistakes and Thinking Big*. However, in today's post-recession economy, some employers are no longer shying away from failure—they're embracing it. According to a recent article in *BusinessWeek*, many companies are deliberately seeking out those with track records reflecting both failure and success, believing that those who have been in the trenches, survived battle and come out on the other side have irreplaceable experience and perseverance.

When the rewards of success are great, embracing possible failure is key to taking on a variety of challenges, whether you're reinventing yourself by starting a new business or allowing yourself to trust another person to build a deeper relationship. "To achieve any worthy goal, you must take risks," says writer and speaker John C. Maxwell. "One of the

biggest secrets to success is operating inside your strength zone but outside of your comfort zone," Heath says. Although you might fail incredibly, you might succeed incredibly—and that's why incredible risk and courage are requisite. Either way, you'll learn more than ever about your strengths, talents and resolve, and you'll strengthen your will for the next challenge. If this sounds like dangerous territory, it can be. But there are ways to ease into this fearless mindset.

- 112.** As per the passage, what is common in all of the struggles which are later documented in the books?
- (i) Efforts made throughout the struggles
  - (ii) Never give up attitude
  - (iii) Success at the end of their journey
- (a) Only (i)  
(b) Only (iii)  
(c) Both (ii) and (iii)  
(d) Both (iii) and (i)  
(e) All of these.
- 113.** Which of the following statement(s) is/are not true in context of the given passage?
- (a) High rewarding challenges require similar adaptability to varied failure possibility.
  - (b) As per Heath, risk taking ability is must to achieve any worthy goal
  - (c) Both (a) and (d)
  - (d) Human generally learn from the mistakes they make and the experience from those mistakes
  - (e) None of these.
- 114.** Which of the following best describe the attitude of Thomas Edison as can be inferred from the second paragraph of the given passage?
- (a) distressed    (b) sedulous    (c) tense
  - (d) indifferent    (e) None of these.
- 115.** Which of the following statement(s) can be inferred from the given passage?
- (a) History is filled with the stories of eminent person and their failures.
  - (b) Positive attitude is the key to tackle a problematic situation
  - (c) Recession have made the people to take failure positively
  - (d) Mangers have to stick their necks out a mile every day to get the job done
  - (e) None of these.
- 116.** Select appropriate filler for the blank given in the passage.
- (a) supremacy    (b) abundant    (c) mediocrity
  - (d) distinction    (e) None of these.

117. Which of the following is opposite in meaning to 'GLOSS' as used in the passage?

- (a) unveil (b) facade (c) shimmer  
(d) conceal (e) None of these.

**Directions (118-120):** In the following questions, a paragraph is given which is provided with some blanks. These blanks have to be filled by one word from the options provided below. Choose the option which fills all the blanks without inducing any grammatical or contextual error.

118. We are witnessing unprecedented \_\_\_\_\_ in India. Such \_\_\_\_\_ are the hallmark of a free, democratic society, whose logic demands that the voice of the people be heard by those in power and decisions be reached after proper discussion and consultation.

- (a) fastenings (b) protests (c) growth  
(d) debate (e) None of these.

119. There could be more bad news on the \_\_\_\_\_ front which saw a five-year high of 7.35% in December. The report from SBI said core \_\_\_\_\_ could rise further on the back of telecom price increase and a larger increase could push headline \_\_\_\_\_ closer to 8%.

- (a) diplomatic (b) economic (c) democratic  
(d) inflation (e) None of these.

120. A bag containing a/an \_\_\_\_\_, placed near a ticket counter at the Mangaluru International Airport, triggered alarm on Monday morning. The bag was later removed and the \_\_\_\_\_ defused through controlled explosion in an open area one kilometre away.

- (a) ornament (b) confliction (c) explosive  
(d) cash (e) None of these.

**Directions (121-125):** Read the following passage and answer the following questions. Some words are highlighted to help you answer some of the questions.

Coffee first arrived in Europe from the Muslim world during the 17th century. It was amazing and it amazed, with an exoticness that charmed Europeans, its stimulating effect and the fact that it made a welcome change from traditional alcoholic beverages. Establishments serving coffee began to open, providing an environment for wonderful social, cultural and political exchange and, within a century, coffee had become part of everyday life.

It is not known exactly when coffee as a drink was discovered. However, we do know that the coffee plant originated in Ethiopia, where coffee beans were consumed either as a paste or as a drink, for their medicinal properties. The shrub was introduced to Yemen around the 14th century and it was then that the first coffee plantations were created. Muslim mystics and pilgrims appreciated coffee for its energising powers, so it travelled to Mecca. From that moment onwards, its success became unstoppable, bowling over Cairo, the Middle East and

Constantinople, before arriving in Europe in the early 17th century. As expected, this new drink would come up against a few opponents. Religious clerics were suspicious and asked Pope Clement VIII to taste it. He allegedly declared that it would be a sin if only unbelievers were allowed to enjoy such a delicious drink. Like the pope, the privileged classes were charmed by coffee and quickly **embraced** its exoticism; 'turqueries' were particularly fashionable at that time. Intellectuals appreciated it for its ability to help one stay alert and to think clearly. Unlike chocolate, which remained a luxury for the privileged for a long time, coffee, which was less-expensive, was adopted by all levels of society and welcomed into homes during the 19th century. A morning cup of coffee gradually replaced traditional broths or soups and became established as a great classic.

The arrival of coffee was accompanied by a new trend as establishments serving coffee, just like the ones that existed in Constantinople and in Cairo, began to open all over Europe. They soon became meeting places, where people from a variety of backgrounds could get together, discuss and exchange ideas, without becoming intoxicated. In Paris, for example, Le Procope became a meeting place for artists and intellectuals - Montesquieu and Diderot were regular customers. The freedom of speech and the spirit of revolt which sometimes reigned in these establishments did not go unnoticed by the authorities. In London, cafés came to be considered dangerous and, in 1676, Charles II ordered their closure. However, as a result of public pressure, they reopened just a few days later.

What we call the coffee bean is actually more like a seed or pit it grows inside a thin-fleshed fruit not unlike a cherry, which ripens about nine months after the coffee plant flowers. In order to prepare the beans for roasting, they must first be removed from this outer casing using one of several techniques—a "washed," a "pulp natural," or a "natural" method—which may vary based on factors like regional climate, tradition, and the coffee's intended flavor profile. This can be a very tricky part of the life cycle of a coffee bean, as even the highest-quality crop can quickly be \_\_\_\_\_ by mold, over-drying, inattentiveness, bad weather, or pest infestation.

121. Which of the following statement(s) is/are false in context of the given passage?

- (a) Coffee leads to the rise of establishments which sometimes served as the origin of revolt.  
(b) Coffee was first discovered in Ethiopia in middle eastern region of world.  
(c) Both (b) and (d)  
(d) Popularity of coffee around the world started from Europe.  
(e) None of these.

122. Which of the following is similar in meaning to the word '**EMBRACED**' as used in the passage?

- (a) repudiate (b) espouse (c) obviate

(d) renounce (e) None of these.

123. Which of the following merits of the coffee have been mentioned in the passage?

- (i) Energizing affects
- (ii) Increased alertness
- (iii) improved ability to think clearly
- (a) Only (i)
- (b) Only (ii)
- (c) Only (iii)
- (d) Both (ii) and (iii)
- (e) All of the above

124. Select appropriate filler for the blank given in the passage.

- (a) augmented (b) ruined (c) exhausted
- (d) replenished (e) None of these.

125. Which of the following statement(s) is/are in accordance with the passage?

- (a) Use of coffee faced severed criticism from religious clerics
- (b) widespread use of coffee helped chocolate in gaining popularity
- (c) coffee fruit is grinded and roasted to obtain the coffee powder which is widely used
- (d) Both (a) and (b)
- (e) None of these.

**Directions (126-130):** In the following questions five sentences which are in their jumbled form are given. Further these sentences have a highlighted part which may or may not form a contextually meaningful sentence. You have to swap the highlighted part with the other to make a contextually meaningful sentence and then rearrange those sentences to make a contextually meaningful paragraph. Later, answer the follow up questions.

- (A) Here, the example of Brazil, the only country where more than 100 million **most ambitious government health programme(i)**.
- (B) Achieving universal health coverage is a very complex task, **one interesting field of cooperation to explore in the strategic partnership is healthcare(ii)**.
- (C) It can also provide lessons for Ayushman Bharat, currently the world's largest and **inhabitants have a universal health system, is worth studying(iii)**.
- (D) As Brazilian President Jair Bolsonaro visits New Delhi this Republic Day, **especially for developing countries(iv)**.
- (E) Which in turn will Help in achieving universal coverage in India, a country with a population of 1.3 billion, **is a challenge of epic proportions(v)**.

126. Which of the following will be the second sentence after the rearrangement?

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

127. Which of the following highlighted phrase should the phrase '**especially for developing countries**' interchanged with to make a contextually meaningful sentence?

- (a) most ambitious government health programme
- (b) one interesting field of cooperation to explore in the strategic partnership is healthcare
- (c) inhabitants have a universal health system, is worth studying
- (d) is a challenge of epic proportions
- (e) No interchange required.

128. Select the correct pair of replacement from the options given below.

- (a) i-ii (b) iii-iv (c) ii-iii
- (d) i-iii (e) None of these.

129. Which of the following will be the fifth sentence after the rearrangement?

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

130. Which of the following will be the fourth sentence after the rearrangement?

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

**Directions (131-138):** In the following passage there are highlighted words, each of which has been numbered. These numbers are printed below the passage and against each, five options are given. In four options, one word is suggested in each option. Find out the appropriate word which can replace the highlighted word. If the highlighted word fits the passage, choose option 'e' (No correction required) as the correct choice.

The Supreme Court allowed the government's **abrogation (131)** to take over the management of the **thriving (132)** real estate major Unitech Ltd. and appointed a new board of directors to steer the completion of pending projects and provide homes for over 12,000 investors in dire straits. A Bench of Justices D.Y. Chandrachud and M.R. Shah appointed former IAS officer Yudvir Singh Malik as the chairman and managing director of the new board while refusing to give a/an **vacant (133)** on the board to Unitech Group founder Ramesh Chandra at this stage.

"The idea of a professional board is to allow them to take control of the company and complete the pending projects in the interest of homebuyers," the court said. The board includes A.K. Mittal, ex-CMD of National Buildings Construction Corporation; Renu Sud Karnad, chairman of HDFC Credila Finance Service Pvt Ltd.; Jitu Virwani, CMD of Embassy Group; and Niranjan Hiranandani, managing director of Mumbai-based Hiranandani Group.

The court **subjugated** (134) the institution of any fresh cases against Unitech for two months. Old orders and enforcement of them also stand suspended for the period. Unitech promoters Sanjay Chandra and his brother Ajay Chandra are currently **granted** (135) in Tihar jail for allegedly **laying** (136) off homebuyers' money. The court said the probe into irregularities in the company would continue and said the work of a panel led by former Delhi High Court judge, Justice S.N. Dhingra, appointed to sell the company's assets and use the money in completion of pending projects, would continue to work till the new board comes up with a **resolution** (137) framework.

The court indicated that it would appoint a retired Supreme Court judge to monitor the preparation of resolution framework. The top court directed the present management of the company, forensic auditors, asset reconstruction companies, banks and financial institutions and state governments to **intend** (138) cooperation to the new board.

131. (a) inception (b) character (c) adoption  
(d) proposal (e) No correction required

132. (a) juvenile (b) embattled (c) sprouting  
(d) endangered (e) No correction required

133. (a) rite (b) abash (c) berth  
(d) ramification (e) No correction required

134. (a) barred (b) adjourned (c) incurred  
(d) discord (e) No correction required

135. (a) entitled (b) coveted (c) lodged  
(d) melee (e) No correction required

136. (a) taken (b) called (c) pay  
(d) siphoning (e) No correction required

137. (a) journal (b) intrinsic (c) luscious  
(d) novice (e) No correction required

138. (a) disseminate (b) extend (c) squander  
(d) plummet (e) No correction required

**Direction (139-140):** Select the phrase/ connector (STARTERS) from the given three options which can be used to form a single sentence from the two sentences given below, implying the same meaning as expressed in the statement sentences.

139. China will step up efforts to contain the coronavirus outbreak ahead of the Lunar New Year holidays. 17 new cases of the virus have been confirmed and there is increasing possibility of spread of virus to other countries.

(i) In lieu of 17 new cases...

(ii) Owing to the 17 new cases....

(iii) Taking into consideration China's efforts to....

(a) Only (i)

(b) Only (ii)

(c) Only (iii)

(d) Both (i) and (ii)

(e) None of the above

140. Doubts were raised about the efficacy of the Right To Information Act in Haryana. Only 35% penalty has been recovered since the setting up of the Haryana State Information Commission in 2006.

(i) Citing the modus operandi of RTI.....

(ii) Stating the facts regarding cases under RTI....

(iii) In what raises doubts about the efficacy.....

(a) Only (i)

(b) Only (ii)

(c) Only (iii)

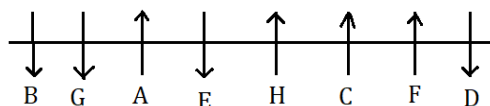
(d) Both (iii) and (i)

(e) None of the above

## Solutions

### REASONING ABILITY

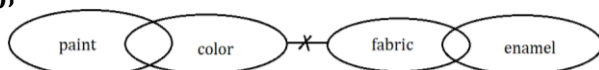
Solutions (1-5):



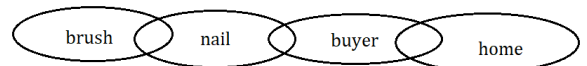
1. (b); 2. (c); 3. (d);

4. (a); 5. (b);

6. (e);



7. (d);

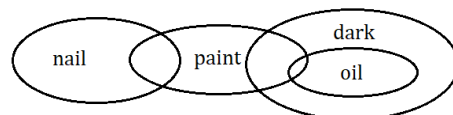


8. (b); Condition I and II is applied.

9. (a); No Condition is applied.

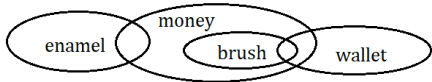
10. (c); Condition III and IV is applied.

11. (b);

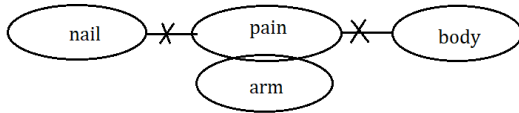




12. (e);



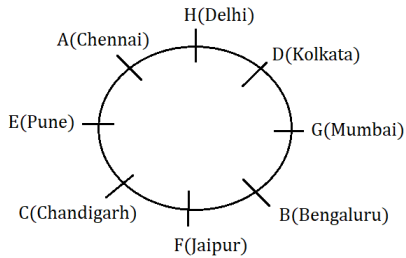
13. (c);



14. (d);

Days	Persons
Monday	F
Tuesday	A
Wednesday	E
Thursday	C
Friday	D
Saturday	B

Solutions (15-19):



15. (b);

16. (a);

17. (c);

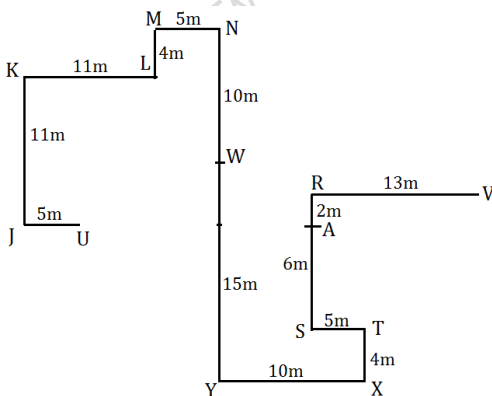
18. (b);

19. (e);

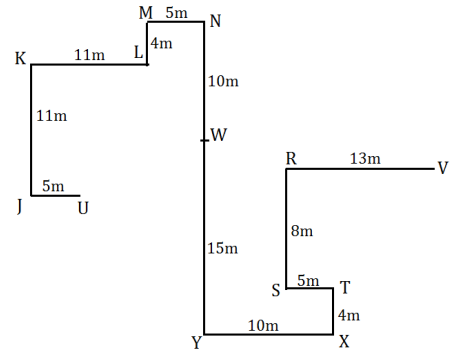
20. (e);

All weights are in whole number so  
 Ram > Rajesh > Geeta > Rohan > Rakesh > Sohan  
 66kg 65kg 64kg 63kg 62kg

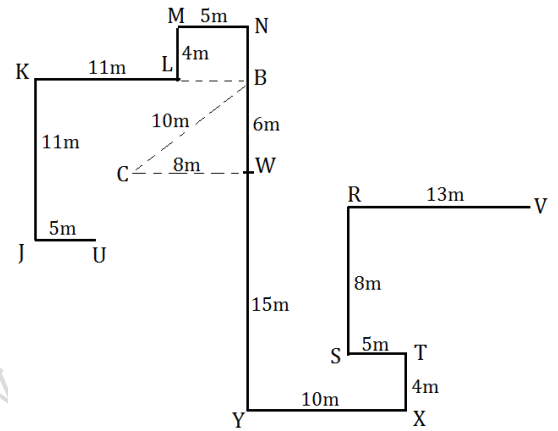
21. (b);



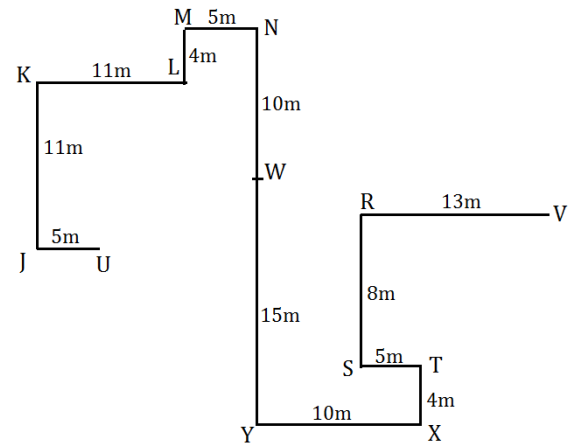
22. (d);



23. (b);



24. (c);



Solution (25-29):

W
Q
S
U
R
P
X
V
Y
Z
T

25. (c);

26. (d);

27. (e);



28. (a); 29. (b);

**Solution (30-32):** Meaningful word is DISCOUNT

30. (d); 31. (b); 32. (e);

**Solution (33-37):** O was born just before K who is youngest. M is not less than 37 year. Ages are measured from 1<sup>st</sup> January 2020. Every person was born on 1<sup>st</sup> of every month. So, M was born on January 1983 and he is oldest person. There are 17 months difference between the age of M and J. So, J was born on June 1984. Here, we get two possibilities i.e. Case 1 and Case 2. There are as many persons were born before Q as after L. P and L were born in same year. J is younger than N. N was born on October.

Years	Case 1		Case 2	
	Months	Persons	Months	Persons
1983	January	M	January	M
	October	N	October	N
1984	June	J		Q
		Q	June	J
1985		L		P
		P		L
1986		O		O
		K		K

P was born before April. So, P was either born on February or on March. O and K were born in the month which have 31 days. There are 13 months difference between the ages of P and O. Now P and O were born on February and March respectively. Q and L were born in the month of 30 days. L was born before P in same year and here P was born on February, so Case 1 is ruled out. There are 11 months gap between the births of L and K. Now, L and K was born on September and August respectively.

So, the final arrangement will be: -

Years	Months	Persons
1983	January	M
	October	N
1984	April	Q
	June	J
1985	February	P
	September	L
1986	March	O
	August	K

33. (c); 34. (e); 35. (b);

36. (c); 37. (d);

**Solution (38-42):** Logic- Each word has code which consists only two symbols.

1<sup>st</sup> symbol is the code of the number which is the difference between the place values of 1<sup>st</sup> and last letter in each word.

2<sup>nd</sup> symbol is the code of the number which is the difference between the place values of 2<sup>nd</sup> letter from right and 2<sup>nd</sup> letter from left.

Code of difference of place values is as follows:

difference	1	2	3	4	5	6	7	8	9	10
code	©	□	£	¥	β	α	Ω	μ	®	€

difference	11	12	13	14	15	16	17	18	19
code	@	∅	\$	%	&	*	Ⓟ	∞	#

38. (c); 39. (b); 40. (d);

41. (b); 42. (c);

43. (d); I. L@N(false) II. K#R(true)

III. V%R(false)

44. (b); I. G&M(false) II. K@O(true)

III. M@G(false)

45. (a); I. M@N(true) II. J#V(false)

III. L%N(false)

46. (a); I. D#A (true) II. F@D(true)

III. H%E(false)

47. (c); I. G%J (false) II. F@H(false)

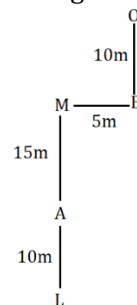
III. I@M(true)

48. (a); From I we get following arrangement:

Floor	Persons
5	X
4	A
3	
2	Y
1	

Hence X lives on 5<sup>th</sup> floor.

49. (c); From I and II both we get following arrangement:



Thus, L is in south-west of O.

50. (b); Even after combining I and II we can't conclude anything.

## QUANTITATIVE APTITUDE

**Solutions (51-56): College A:** let no. of students in ME =  $2x$

Students in EE =  $2x + 40$

Students in CE =  $3x$

**College B:** students in EE =  $2x + 20$

Students in CE =  $340 = 40 + 3x$

Students in ME =  $\frac{9}{11}(2x + 20)$

**College C:** students in ME =  $1.2x$

Students in CE =  $1.2x - 40$

Students in EE =  $780 - (2x+40+2x+20) = 720 - 4x$

On solving,  $x = 100$

College \ Course	ME	CE	EE	Total
A	200	300	240	740
B	180	340	220	740
C	120	80	320	520

**51. (e);** students in C = 520

**52. (a);** students who shifted to CE in college C from ME in college A = 20

Students in CE in college C now =  $80+20 = 100$

Average of students in ME of all colleges

$$= \frac{180 + 180 + 120}{3} = 160$$

Required difference =  $160 - 100 = 60$

**53. (c);** required % =  $\frac{220-120}{120} \times 100 = 83\frac{1}{3}\%$

**54. (b);** required ratio =  $(200 + 300) : (340 + 220)$   
=  $500 : 560 = 25 : 28$

**55. (d);** required difference =  $\frac{240+220+320}{3} \sim \frac{300+340+80}{3}$   
= 20

**56. (b);** required % =  $\frac{520}{740} \times 100 = 70\%$  (approx.)

**57. (d);** Let MP be Rs  $100x$

SP = Rs  $90x$

CP =  $\frac{100}{112.5} \times 90x = \text{Rs } 80x$

New SP = Rs  $75x$

Required loss % =  $\frac{5x}{80x} \times 100 = 6.25\%$

**58. (c);** ATQ,  $\frac{1}{16} + \frac{1}{x} - \frac{1}{12} = \frac{7}{240}$

On solving,  $\frac{1}{x} = \frac{1}{20}$

$x = 20$  min

**59. (b);** milk remained after 20 lit mixture is taken out

$$= (96 - 20) \times \frac{65}{100} = 49.4 \text{ lit}$$

Water remained after 20 lit mixture is taken out

$$= (96 - 20) \times \frac{35}{100} = 26.6 \text{ lit}$$

Required difference =  $(49.4 + 10) - (26.6 + 16)$   
= 16.8 litre

**60. (c);** Speed of train A =  $\frac{4 \times 180}{36} = 20 \text{ m/s} = 72 \text{ kmph}$

Length of train B =  $63 \times \frac{5}{18} \times 8 = 140 \text{ m}$

$$\text{Required time} = \frac{180+140}{(72-63) \times \frac{5}{18}} = 128 \text{ sec}$$

**61. (b);** Total student in 2019 = 360

Let no. of boys & girls be  $x$  &  $y$  respectively

$$x + y = 360 \dots\dots\dots(i)$$

Students who didn't participate in 2019

$$= \frac{40}{100} \times 360 = 144$$

no. of boys who didn't participate in 2019

$$= 144 - 12 = 132$$

$$\text{required difference} = \frac{132}{55} \times 45 - \frac{15}{100} \times 360 = 54$$

**62. (a);** no. of girls who didn't participate in 2018 = 30

No. of boys who participated in 2018

$$= 300 - \frac{30}{20} \times 100 = 150$$

Required ratio =  $45 : 150 = 3 : 10$

**63. (d);** no. of students in 2015 =  $780 - (360+180) = 240$

Students who didn't participate in 2015 = 72

no. of boys who didn't participate in 2015 = 49  
 Total number of girls in 2015 =  $240 - \frac{49}{35} \times 100$   
 = 100  
 Required difference =  $140 \times \frac{65}{100} - (100 - 23)$   
 = 91 - 77 = 14

**64. (e);** required average  
 =  $\frac{1}{3} \left( 360 \times \frac{15}{100} + 180 \times \frac{25}{100} + 300 \times \frac{10}{100} \right)$   
 =  $(54 + 45 + 30) / 3 = 43$

**65. (c);** Total no. of boys in 2018 = 180  
 Total No. of girls in 2018 = 120  
 No. of students who didn't participate in 2018 = 30  
 No. of boys who didn't participate in 2018 = 30 - 24 = 6  
 Required % =  $\frac{6}{120-24} \times 100 = 6\frac{1}{4}\%$

**66. (a);** no. of boys who didn't participate in 2019 = 110  
 No. of girls who didn't participate in 2019 =  $5 + \frac{25}{100} \times 180 = 50$   
 Total students in 2019 =  $\frac{160}{40} \times 100 = 400$   
 No. of girls who participated in 2019 = 200 - 50 = 150  
 Required ratio =  $150 : \left( \frac{90}{100} \times 300 \right) = 5 : 9$

**Solutions (67-68):** Ratio of Profit share (A : B : C)  
 =  $(6000 \times X) : (12000 \times 12) : (7000 \times X) = 6X : 144 : 7X$   
 ATQ,  $6X : 144 : 7X = 18 : 48 : Z$   
 $\frac{6X}{144} = \frac{18}{48}$   
 X = 9 months  
 Also,  $\frac{144}{7X} = \frac{48}{Z} \Rightarrow Z = 21$

**67. (c);** X = 9 months

**68. (d);** Z = 21

**69. (e);** Let present age of father & mother be 12x years & 11x years respectively  
 ATQ,  $\frac{12x+12}{11x+12} = \frac{15}{14} \Rightarrow x = 4$   
 present age of son = 12x - 22 = 26 yrs  
 present age of daughter = 11x - 20 = 24 yrs  
 required sum = 50 yrs

**70. (b);** let sum be Rs P  
 ATQ,  $P \left( \frac{20}{100} \right)^2 = 420$   
 P = Rs 10500  
 Required simple interest =  $\frac{10500 \times 25 \times 3}{100} = \text{Rs } 7875$

**71. (d);**  $40 \div 5 + ? \approx 73 - 19$   
 ? = 46

**72. (a);**  $10 \times 16 - 55 \div 11 \approx ? + 55$   
 ? = 100

**73. (c);**  $63 + 68 - 43 + ? \approx 90$   
 ? = 2

**74. (e);**  $80 + 23 \approx 13 \times 7 + ?$   
 ? = 12

**75. (b);**  $520 \div 13 - 4 \times 10 + 34 \approx ?$   
 ? = 34

**76. (a);** let amount invested by C be Rs X  
 Profit share ratio = A : B : C  
 =  $6000 \times 12 : 12000 \times 9 : X \times 6$   
 = 12000 : 18000 : X  
 ATQ,  $\frac{X}{30000+X} \times 50400 = 18900$   
 x = Rs 18000

**77. (b);** side of square = 42 m (area of square  $\approx 1764 \text{ m}^2$ )  
 length of rectangle = 14 m  
 breadth of rectangle = 10 m  
 Required difference = 1767 - 140 = 1627  $\text{m}^2$

**78. (e);** let CP be Rs x  
 ATQ,  $\frac{120}{100} \times x = 802 + 38$   
 x = Rs 700  
 required profit % =  $\frac{802-700}{700} \times 100 = 14\frac{4}{7}\%$

**79. (c);** Let speed of boat in still water be s kmph  
 ATQ,  $\frac{D}{4} = s - 2$   
 D = 4s - 8 .....(i)  
 Also,  $\frac{D-2}{3} = s + 2$   
 D = 3s + 8 .....(ii)  
 From (i) & (ii);  
 S = 16 kmph  
 Required distance = 3(16 - 2) = 42 km

**80. (d);** When dice is rolled two times  
 Total number of possibilities = 36 (i.e.  $6^2$ )  
 Desired possibilities =  ${}^6C_2 \times 1$   
 (i.e. two number are selected for two rolls)  
 1 No. of way to arrange number in descending orders.  
 $\therefore$  Required probability =  $\frac{{}^6C_2}{36} = \frac{5}{12}$

**81. (a);** Required central angle  $\rightarrow \frac{360}{100} \times 28 = 100.8^\circ$

**82. (c);** Let total girls in class C in March 2019 be 28x  
 Number of girls class C in April 2019 =  $\left( 1 + \frac{1}{7} \right) \times 28x = 35x$   
 Number of boys in class C in March 2019 =  $\frac{(100-25)}{100} \times 28x = 21x$   
 Number of boys in class C in April 2019 =  $\left( 1 + \frac{1}{3} \right) \times 21x = 28x$

$$\text{Required percentage} = \frac{35x+28x-28x-21x}{28x+21x} \times 100$$

$$= \frac{14}{49} \times 100 = 28\frac{4}{7}\%$$

83. (e); Let number of girls in class B be  $15x$  and number of girls in class E be  $20x$

$$\text{Number of boys in class B} = \frac{(100+30)}{100} \times 15x = \frac{39x}{2}$$

$$\text{Number of boys in class E} = \frac{(100+25)}{100} \times 20x = 25x$$

$$\text{Required ratio} = \frac{39}{2 \times 25} = 39:50$$

84. (e); Let number of girls in class A, B, D and E be  $12x$ ,  $15x$ ,  $25x$  and  $20x$  respectively.

$$\text{ATQ, } \frac{(100+30)}{100} \times 15x = 195$$

$$15x = \frac{1950}{13} \Rightarrow x = 10$$

$$\text{Number of boys in class A} = \frac{(100+50)}{100} \times 12x = 18x$$

$$\text{Number of boys in class D} = \frac{(100+24)}{100} \times 25x = 31x$$

$$\text{Number of boys in class E} = \frac{(100+25)}{100} \times 20x = 25x$$

Required average

$$= (18 + 31 + 25) \times \frac{10}{3} = 246\frac{2}{3}$$

85. (a); Let girls in class D be  $25x$  then boys in D will be  $31x$

$$\text{So, } 6x = 216 \Rightarrow x = 36$$

$$\text{Boys in class A} = 12x \times \frac{150}{100} = 18x$$

$$\text{Girls in class C} = 28x$$

$$\text{Required sum} = 18x + 28x = 46 \times 36 = 1656$$

86. (e); Let total girls in class B and class E be  $15x$  and  $20x$  respectively

$$\text{Total boys in class B} = 19.5x$$

$$\text{Total boys in class E} = 25x$$

$$\text{Required percentage} = \frac{45x-34.5x}{45x} \times 100 = 23\frac{1}{3}\%$$

87. (d); From I -

Ratio of efficiency of A to B is  $5 : 4$

So,

Ratio of time taken by A : B is  $4 : 5$

From I we can calculate the time taken by A alone to complete the work

Hence statement I alone is sufficient to answer the question

**From II -**

From II we can say that either A takes more time than B or vice versa.

Let A takes  $(x + \frac{45}{2})$  days and B takes  $x$  days. So, time taken by A and B together to complete the work will be  $= 15 \times \frac{10}{11}$  days

$$\text{ATQ, } \frac{2}{2x+45} + \frac{1}{x} = \frac{11}{150}$$

from here  $x$  can be calculated and we can find the value of time taken by A alone to complete the work.

We can find the answer from either statement I alone or statement II alone.

88. (d); From I -

Radius of circle C1 is half the diagonal of square. So, we can find side of square from statement I alone.

**From II -** Diameter of circle C2 is equal to side of square. So, we can find side of square from statement II alone.

Hence, Either statement I alone or statement II alone is sufficient to answer the question.

89. (d); It is given that  $\frac{35}{x-y} + \frac{35}{x+y} = 4$

**From I -** We get the value of  $x$  from first statement so on putting the value of  $x$  in the above equation we obtain value of  $y$ .

So, we can find the value of required time from statement I alone.

$$\text{From II - } \frac{x}{y} = \frac{5}{1}$$

On putting the value of  $x/y$  in the equation we obtain value of  $x$  and  $y$ .

So from statement II alone we can find the value of the required time.

So, from each statement individually we can find the value of required time.

90. (a); Let length of train be  $x$  meter so length of platform will be  $2x$  meter

$$\text{So, speed of train (in m/s)} = \frac{3x}{48}$$

$$\text{From I - ATQ, } \frac{x}{\frac{3x}{48}-4} = 20$$

So,  $x$  can be calculated from I and hence speed of train can be calculated.

**From II -** Statement II gives information only about percentage decrease in speed. We can not calculate speed of train because no information is given about time.

So statement I alone is sufficient to answer the question while statement II alone is not sufficient to answer the question.

91. (b); From I -

Probability of getting a black ball is  $= \frac{1}{6}$

Let there are 'a' black balls & '6a' total balls

Similarly red balls = 'a'

Probability of getting a white ball  $= \frac{2}{3} = \frac{4}{6}$

There will be  $4a$  white balls.

$$x = 6a$$

But it can't be solved further.

**From II -**

$$\text{Probability of getting a white balls} = 1 - \frac{8}{23} = \frac{15}{23}$$

Let here 15 m white balls and 23 m total remaining balls after 1 white ball is lost  
 And  $23m + 1 = x$   
 $15m + 1$  is initial number of white balls  
 15 m is multiple of 15, it could be 15, 30, 45....  
 But it is given that initial number is less than 27.  
 Therefore initial number of balls is  $15m + 1 = 16$  balls, and now 15 balls are remaining. Hence  $23m = x - 1$   
 Put  $m=1$   
 $x=24$  balls  
 Hence it can be answered from (ii) alone.

92. (b); Selling Price after marking up and Discount given =  $320 \times \frac{100+60}{100} \times \frac{50}{100} = 256$  Rs.

Selling Price when direct 20% profit is obtained =  $320 \times \frac{120}{100} = 384$  Rs.  
 Required difference in selling price =  $384 - 256 = 128$  Rs.

93. (d); Let cost price of article G be Rs. 'x'  
 Selling price of article G =  $x \times \frac{200}{100} \times \frac{80}{100} = 1.6x$  Rs.  
 ATQ,  $1.6x - x = 150 \Rightarrow x = \text{Rs.}250$

94. (e); Let cost price of article B and article E be Rs. 'x' and Rs. 'y' respectively  
 So, according to question  
 $\frac{220x}{100} \times \frac{3}{5} = \frac{175y}{100} \times \frac{4}{5}$   
 On solving,  $\frac{x}{y} = \frac{35}{33}$   
 Required Percentage =  $\frac{2}{33} \times 100 = 6\frac{2}{33}\%$

95. (a); Let CP of article C =  $100x$   
 MRP of article C =  $180x$   
 SP of article C =  $180x \times \frac{3}{4} = 135x$   
 Required ratio =  $\frac{180x}{135x} = 4 : 3$

96. (c); Let cost price of all the articles is same i.e.  $100x$   
 So,  
 Selling price of A and B together =  $250x \times \frac{3}{5} + 220x \times \frac{3}{5} = 150x + 132x = 282x$   
 MRP of article G =  $200x$   
 Required Percentage =  $\frac{282x-200x}{200x} \times 100 = 41\%$

97. (e); Let cost price of article C be  $100a$   
 So, cost price of article B will be  $100a + 100$   
 Marked Price of article C will be  $180a$   
 Marked price of article B  $180a + 260$   
 According to question,  
 $(100a + 100) \times \frac{220}{100} = 180a + 260$   
 $220a + 220 = 180a + 260$   
 $a = 1$   
 Selling Price of B =  $(180a + 260) \times \frac{3}{5} = \text{Rs.}264$

Selling Price of article C =  $180a \times \frac{3}{5} = \text{Rs.}108$   
 Required difference =  $264 - 108 = \text{Rs.}156$

98. (d); Let the speed of boat in still water be  $x$  km/hr and that of speed of current be  $y$  km/hr  
 ATQ

$$x + y - (x - y) = 7$$

$$y = 3.5 \text{ km/hr}$$

$$\frac{45}{x+3.5} - \frac{13}{x-3.5} = \frac{80}{60}$$

$x = 10$  &  $14$  (14 is neglected because  $x$  should be multiple of 5)

$$\therefore x = 10 \text{ km/h}$$

New speed of current =  $7$  km/hr

$$\text{Distance travelled in upstream} = 7 \times (10 - 7) = 21 \text{ km}$$

99. (b); Let present age Ravi and Sneha be  $7x$  and  $6x$  years respectively

ATQ

$$\frac{7x-10}{6x-10} = \frac{5}{4}$$

$$x = 5$$

Present age of Ravi =  $35$  yr

And present age of Sneha =  $30$  yr

For maximum value of present total age of the family

Present age of triplet =  $8$  yr

Present age of twins =  $6$  yr

Present age of sixth child =  $4$  yr

And present age of seventh child =  $2$  yr

Maximum present age of that family

$$= 35 + 30 + 8 \times 3 + 6 \times 2 + 4 + 2$$

$$= 107 \text{ yr}$$

100. (e); Here,

$$\frac{72}{r} = 2r$$

$$r = 6\% \text{ p.a.}$$

Time in which invested sum becomes double of itself =  $12$  years

ATQ

$$6,00,000 = 3,00,000 \left[1 + \frac{r}{100}\right]^{12}$$

$$\left[1 + \frac{r}{100}\right]^{12} = 2 \dots \dots \dots (i)$$

$$\text{Required amount} = 3,00,000 \left[1 + \frac{r}{100}\right]^{48}$$

$$= 3,00,000 \times (2)^4 = 48 \text{ lac}$$

## ENGLISH LANGUAGE

- 101. (d);** Evidence in support of the given answer can be found from the following statements 'What if an AI-based driverless car gets into an accident that causes harm to humans or damages property? Who should the courts hold liable for the same?' and 'Some have warned that advances in AI could erode the fundamental logic of nuclear deterrence by enabling counter-force attacks against heretofore concealed and mobile nuclear forces.' From the given statements, both option (a) and (c) can be inferred clearly. Hence, the correct answer choice would be option (d)
- 102. (c);** Evidence in support of the given argument can be found in the following statement 'AI-driven improvements to intelligence, surveillance, and reconnaissance would threaten the survivability of heretofore secure second-strike nuclear forces by providing technologically advanced nations with the ability to find, identify, track, and destroy their adversaries' mobile and concealed launch platforms.' Also, only option (c) can be inferred from the given passage and hence, the appropriate answer choice.
- 103. (a);** Musing means giving a careful thought for a long period of time  
Contemplation means think deeply and at length.  
Decimate means kill, destroy, or remove a large proportion of.  
Nurture means care for and protect  
So, going through the meaning of the given words it can be clearly seen that the correct answer choice would be option (a)
- 104. (e);** Going through the passage no appropriate reason for absence of regulation can be stated.
- Hence, the correct answer choice would be option (e).
- 105. (d);** Discard means a thing rejected as no longer useful or desirable.  
Flout means openly disregard  
Embellish means make (a statement or story) more interesting by adding extra details that are often untrue  
Illuminate means help to clarify or explain  
Going through the given sentence and the meaning of the given words it can be clearly seen that the correct answer choice would be option (d)
- 106. (b);** From the given options, only (b) is mentioned in the passage. Evidence in support of the given argument can be found from the following statement 'Germany is working on blemish present in it, like certain ethical rules for autonomous vehicles stipulating that human life should always have priority over property or animal life.' From the given statement option (b) can be inferred clearly and hence the correct answer choice would be option (b).
- 107. (d);** In part (A), usage of 'noting' is incorrect instead it should be 'noted' which means well known; famous. In part (B), use of 'is' is incorrect instead it should be 'was' as the given sentence is in past tense as can be seen from the usage of 'was' in the highlighted part. In part (D), usage of article 'a' is incorrect instead it should be 'an'. So, only part (C) is free from any grammatical error. Hence, the correct answer choice would be option (d)
- 108. (c);** In part (A), use of 'peoples' is incorrect because 'people' has both singular and plural sense in it, so there is no need to add 's' to make it plural. In

part (C), instead of 'investigate' it should be 'investigating' as per the rule of parallelism and in part (D), instead of 'along' it should be 'around' the country. So, only part (B) is free from any error. Hence, the correct answer choice would be option (c)

**109. (e);** There is no grammatical error in the given sentence. Hence, the correct answer choice would be option (e).

**110. (d);** In part (A), instead of 'have' it should be 'has' because 'NGT' is singular. In part (B), instead of 'millions' we should use 'million' because we don't add 's' when we given exact number and in part (D), instead of 'treated' it should be 'treat'. So, only part (C) is free from error. Hence, the correct answer choice would be option (d).

**111. (c);** In part (A), instead of 'was' it should be 'is' as the given sentence is in present tense as can be seen from the highlighted part. In part (C), instead of 'to' it should be 'from' and in part (D), instead of 'of' it should be 'to'. So, only (B) is free from any error. Hence, the correct answer choice would be option (c)

**112. (b);** Evidence in support of the given answer can be found in the last line of the first paragraph in which it is stated 'Society doesn't reward defeat, and you won't find many failures documented in history books.' From the given statement it can be clearly seen that the world will only appreciate your efforts if you achieve success at the end or the efforts lead to success. Hence, the correct answer choice would be option (b)

**113. (b);** From the given statements, only option (b) is incorrect. Given argument can be justified from the following sentence from the passage "To achieve any worthy goal, you must take risks," says writer and speaker John C. Maxwell. Remaining options are true as per the passage. Hence, the correct answer choice would be option (b)

**114. (b);** Distressed means suffering from extreme anxiety, sorrow, or pain.

Sedulous means showing dedication and diligence.

Tense means unable to relax because of nervousness

Indifferent means having no particular interest or sympathy

So, going through the meaning of the given words it can be clearly seen that the appropriate answer choice would be option (b)

**115. (c);** Evidence in support of the given argument can be found from the following statement 'However, in today's post-recession economy, some employers are no longer shying away from failure—they're embracing it.' Also, there are inadequate facts present to justify the remaining options. Hence, the correct answer choice would be option (c)

**116. (c);** Taking hint from the contrasting structure of the sentence it can be clearly seen that the correct filler for the given blank should be 'mediocrity'. Hence, the correct answer choice would be option (c)

**117. (d);** Gloss means try to conceal or disguise (something unfavourable) by treating it briefly or representing it misleadingly.

Unveil means show or announce publicly for the first time

Façade means a deceptive outward appearance.

Shimmer means shine with a soft, slightly wavering light.

Conceal means prevent (something) from being known

Going through the meaning of the given words it can be clearly seen that the appropriate answer would be option (d)

**118. (b);** Fastening means a device that closes or secures something

Going through the meaning of the given words and taking hint from the use of helping verb 'are' after second blank, the appropriate filler for the given blank to make the given sentences both grammatically and contextually correct would be option (b)

**119. (d);** From the given options, only 'inflation' can fit all the blanks to make grammatically and contextually meaningful sentences. Hence, the correct answer choice would be option (d)

**120. (c);** From the given options, only 'explosive' can be used to fill the given blanks to make the given sentences both grammatically as well as contextually meaningful. Hence, the correct answer choice would be option (c)

**121. (d);** From the given options, statement in option (d) is incorrect. Evidence supporting given argument can be found in the following sentences 'The shrub was introduced to Yemen around the 14th century and it was then that the first coffee plantations were created. Muslim mystics and pilgrims appreciated coffee for its energising powers, so it travelled to Mecca. From that moment onwards, its success became unstoppable, bowling over Cairo, the Middle

East and Constantinople, before arriving in Europe in the early 17th century.' Hence, the correct answer choice would be option (d)

- 122. (b);** From the given options, only 'espouse' is similar in meaning to the given word, remaining are its antonym. Hence, the correct answer choice would be option (b)
- 123. (e);** All of the given advantages of the coffee have been mentioned in the passage as can be seen from the following statement 'Muslim mystics and pilgrims appreciated coffee for its energising powers, so it travelled to Mecca. Intellectuals appreciated it for its ability to help one stay alert and to think clearly.' Hence, the correct answer choice would be option (e)
- 124. (b);** Going through the given sentence it can be clearly seen that the appropriate filler for the given blank would be 'ruined'. Hence, the correct answer choice would be option (b)
- 125. (c);** From the given options, only statement (c) is against the facts mentioned in the passage. Evidence in support of the given argument can be found from the following statement 'What we call the coffee bean is actually more like a seed or pit it grows inside a thin-fleshed fruit not unlike a cherry, which ripens about nine months after the coffee plant flowers.' Hence, the correct answer choice would be option (c)
- 126. (d);** First part of sentence (A) is providing the example of Brazil and sentence (C) is talking about the Ayushman Bharat. Taking hint from the use of 'world's largest' in sentence (C) and example of Brazil in (A) it can be clearly seen that the highlighted part of the both sentences can be interchanged to make a contextually meaningful sentence. Also, going through the first part of sentence (B) and (D) we can get an idea that the highlighted parts of these two can be interchanged to make a meaningful sentence. However, in sentence (E) no interchange is required. Now for the rearrangement of the sentences thus formed take hint from the starting of the sentences. From the given sentences, only (D) is the appropriate choice for the first sentence. Next in arrangement would be (B) as can be seen from the use of 'partnership in healthcare' in (D). Fact stated in (B) is further supported by providing example of Brazil in sentence (A), so it will be next sentence in arrangement. Sentence (A) then will be followed by (C) and (E) to make a contextually meaningful paragraph. So, the final arrangement is **DBACE**.

**127. (b);** First part of sentence (A) is providing the example of Brazil and sentence (C) is talking about the Ayushman Bharat. Taking hint from the use of 'world's largest' in sentence (C) and example of Brazil in (A) it can be clearly seen that the highlighted part of the both sentences can be interchanged to make a contextually meaningful sentence. Also, going through the first part of sentence (B) and (D) we can get an idea that the highlighted parts of these two can be interchanged to make a meaningful sentence. However, in sentence (E) no interchange is required. Now for the rearrangement of the sentences thus formed take hint from the starting of the sentences. From the given sentences, only (D) is the appropriate choice for the first sentence. Next in arrangement would be (B) as can be seen from the use of 'partnership in healthcare' in (D). Fact stated in (B) is further supported by providing example of Brazil in sentence (A), so it will be next sentence in arrangement. Sentence (A) then will be followed by (C) and (E) to make a contextually meaningful paragraph. So, the final arrangement is **DBACE**.

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**129. (c);** First part of sentence (A) is providing the example of Brazil and sentence (C) is talking about the Ayushman Bharat. Taking hint from the use of 'world's largest' in sentence (C) and



example of Brazil in (A) it can be clearly seen that the highlighted part of the both sentences can be interchanged to make a contextually meaningful sentence. Also, going through the first part of sentence (B) and (D) we can get an idea that the highlighted parts of these two can be interchanged to make a meaningful sentence. However, in sentence (E) no interchange is required. Now for the rearrangement of the sentences thus formed take hint from the starting of the sentences. From the given sentences, only (D) is the appropriate choice for the first sentence. Next in arrangement would be (B) as can be seen from the use of 'partnership in healthcare' in (D). Fact stated in (B) is further supported by providing example of Brazil in sentence (A), so it will be next sentence in arrangement. Sentence (A) then will be followed by (C) and (E) to make a contextually meaningful paragraph. So, the final arrangement is **DBACE**.

- 130. (a);** First part of sentence (A) is providing the example of Brazil and sentence (C) is talking about the Ayushman Bharat. Taking hint from the use of 'world's largest' in sentence (C) and example of Brazil in (A) it can be clearly seen that the highlighted part of the both sentences can be interchanged to make a contextually meaningful sentence. Also, going through the first part of sentence (B) and (D) we can get an idea that the highlighted parts of these two can be interchanged to make a meaningful sentence. However, in sentence (E) no interchange is required. Now for the rearrangement of the sentences thus formed take hint from the starting of the sentences. From the given sentences, only (D) is the appropriate choice for the first sentence. Next in arrangement would be (B) as can be seen from the use of 'partnership in healthcare' in (D). Fact stated in (B) is further supported by providing example of Brazil in sentence (A), so it will be next sentence in arrangement. Sentence (A) then will be followed by (C) and (E) to make a contextually meaningful paragraph. So, the final arrangement is **DBACE**.
- 131. (d);** Inception means the establishment or starting point of an institution or activity.  
Adoption means the action or fact of choosing to take up, follow, or use something.  
Proposal means a plan or suggestion, especially a formal or written one

Going through the meaning of the given words it can be clearly seen that the correct answer choice would be option (d)

- 132. (b);** Juvenile means childish; immature.  
Embattled means involved in or prepared for war  
Sprouting means appear or develop suddenly and in large numbers.  
Endangered means seriously at risk of extinction.  
Going through the meaning of the given words it can be clearly seen that the correct answer choice would be option (b)
- 133. (c);** Rite means a social custom, practice, or conventional act.  
Abash means make (someone) feel embarrassed  
Berth means a position in an organization or event.  
Ramification means complex or unwelcome consequence of an action or event.  
Going through the meaning of the given words it can be clearly seen that the appropriate answer choice would be option (c)
- 134. (a);** Barred means prevent or prohibit (someone) from doing something  
Adjourned means put off or postpone  
Incurred means to experience something bad as a result of actions you have taken:  
Discord means the state of not agreeing or sharing opinions  
So, going through the meaning of the given options, it can be clearly seen that the correct answer choice would be option (a)
- 135. (c);** Entitled means give (something) a particular title.  
Coveted means greatly desired or envied.  
Lodged means make or become firmly fixed or embedded in a place.  
Melee means a confused fight or scuffle.  
So, going through the meaning of the given options it can be clearly seen that the correct answer choice would be option (c)
- 136. (d);** Taken off means depart from the ground  
Called off means to cancel or abandon  
Pay off means yield good results; succeed.  
Siphoning means draw off or transfer over a period of time, especially illegally or unfairly  
So, going through the meaning of the given words it can be clearly seen that the correct answer choice for the given question would be option (d)

**137. (e);** Word used in the given question is both grammatically as well as contextually correct. So the correct answer choice would be option (e)  
Journal means a record of things that you have done

Intrinsic means being an extremely important and basic characteristic of a person or thing

Luscious means pleasing to see, hear, or feel

Novice means a person who is not experienced in a job or situation.

**138. (b);** Disseminate means spread widely

Squander means allow to pass or be lost

Plummet means a steep and rapid fall or drop.

Going through the meaning of the given options, it can be clearly seen that the correct answer choice would be option (b)

**139. (b);** From the given options, only (ii) is able to connect the given sentences to make a meaningful and grammatically correct sentence. The sentence thus formed is 'Owing to the 17 new cases of the virus have been confirmed and there is increasing possibility of spread of virus to other countries, China will step up efforts to contain the coronavirus outbreak ahead of the Lunar New Year holidays.' Hence, the correct answer choice would be option (b)

**140. (c);** From the given starters, only (iii) is able to connect the given sentences to make a sentence which is both grammatically correct and contextually meaningful. The sentence thus formed is 'In what raises the doubts about the efficacy of the Right to Information Act in Haryana, only 35% penalty has been recovered since the setting up of the Haryana State Information Commission in 2006.' Hence, the correct answer choice would be option (c)