

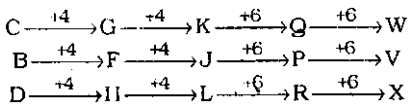
A N S W E R S

1. (2)	2.(2]	3. (5)	4. (4)
5. (1)	6. (2)	7. (5)	8. (3)
9. (3)	10. (4)	11. (5)	12. (4)
13. (2)	14. (4)	15. (4)	16. (3)
17. (1)	18. (3)	19. (1)	20. (5)
21. (5)	22. (1)	23. (2)	24. (4)
25. (3)	26. (1)	27. (3)	28. (2)
29. (4)	30. (4)	31. (5)	32. (1)
33. (5)	34. (4)	35. (4)	36. (3)
37. (1)	38. (2)	39. (4)	40. (3)
41. (4)	42.(5)	43. (1)	44. (2)
45. (2)	46. (5)	47. (4)	48. (1)
49. (2)	50. (3)	51. (3)	52. (1)
53. (1)	54. (4)	55. (5)	56. (5)
57. (2)	58. (5)	59. (3)	60. (2)
61. (3)	62. (2)	63. (5)	64. (5)
65. (1)	66. (2)	67. (3)	68. (3)
69. (5)	70. (2)	71. (5)	72. (1)
73. (5)	74. (1)	75. (5)	76. (1)
77. (2)	78. (3)	79. (5)	80. (4)
81. (4)	82. (1)	83. (4)"	84.(1)
85. (5)	86. (2)	87. (2)	88. (5)
89. (3)	90. (3)	91. (2)	92. (5)
93. (1)	94. (5)	95. (4)	96. (1)
97. (5)	98. (5)	99. (1)	100. (1)
101. (1)	102. (2)	103. (5)	104. (5)
105. (3)	106. (3)	107. (5)	108. (4)
109. (3)	110. (5)	111. (1)	112. (2)
113. (2)	114. (5)	115. (3)	116. (3)
117. (1)	118. (5)	119. (3)	120. (2)
121. (5)	122. (4)	123. (2)	124. (1)
125. (4)	126. (3)	127. (2)	128. (4)
129. (3)	130. (1)	131.(1)	132. (1)

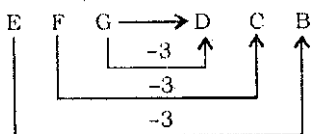
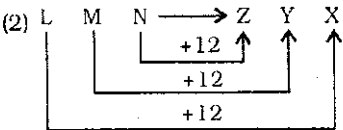
133. (5)	134. (3)	135. (1)	136. (4)
137. (1)	138. (5)	139. (4)	140. (2)
141. (2)	142. (5)	143. (4)	144. (3)
145. (1)	146. (4)	147. (3)	148. (5)
149. (5)	150. (3)	151. (2)	152. (4)
153. (3)	154. (1)	155. (3)	156. (5)
157. (4)	158. (3)	159. (2)	160. (4)
161. (4)	162. (2)	163. (5)	164. (1)
165. (4)	166. (2)	167. (2)	168. (4)
169. (2)	170. (4)	171. (3)	172. (3)
173. (5)	174. (3)	175. (1)	176. (5)
177. (3)	178. (4)	179. (2)	180. (4)
181. (5)	182. (3)	183. (1)	184. (2)
185. (1)	186. (2)	187. (5)	188. (3)
189. (1)	190. (4)	191. (2)	192. (3)
193. (3)	194. (5)	195. (1)	196. (5)
197. (4)	198. (1)	199. (4)	200. (2)
201. (2)	202. (3)	203. (4)	204. (5)
205. (5)	206. (1)	207. (4)	208. (3)
209. (3)	210. (1)	211. (2)	212. (2)
213. (5)	214. (4)	215. (3)	*216. (5)
217. (4)	218. (3)	219. (1)	220. (4)
221. (5)	222. (2)	223. (3)	224. (3)
225. (1)			

EXPLANATIONS

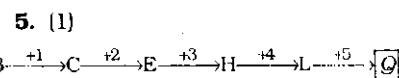
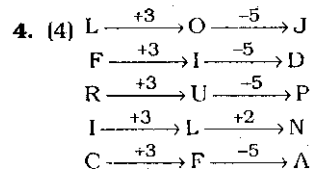
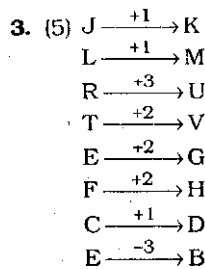
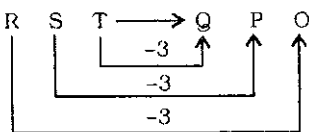
1. (2)



2. (2)



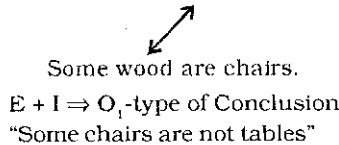
Therefore,



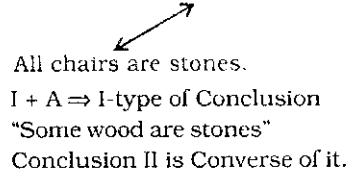
(6 - 15) :

- (i) All chairs are stones → Universal Affirmative (A-type).
- (ii) Some wood are chairs → Particular Affirmative (I-type).
- (iii) No table is wood → Universal Negative (E-type).
- (iv) Some tables are not wood → Particular Negative (O-type).

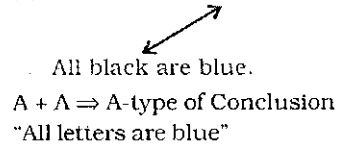
6. (2) No table is wood.



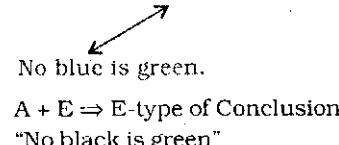
Some wood are chairs.



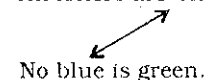
7. (5) All letters are black.



All black are blue.



All letters are blue.

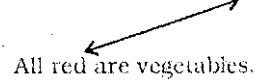


A + E ⇒ E-type of Conclusion
"No letter is green"

This is Conclusion I.

Conclusion II is Converse of the second Premise.

8. (3) Some mangoes are red.



I + A ⇒ I-type of Conclusion

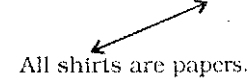
"Some mangoes are vegetables"
Conclusions I and II form Complementary Pair. Therefore, either Conclusion I or II follows.

9. (3) Both the Premises are Particular Affirmative (I-type). No Conclusion follows from the two Particular Premises.

Conclusions I and H form Complementary Pair. Therefore, either Conclusion I or II follows.

10. (4) All the three Premises are Particular Affirmative (I-type). No Conclusion follows from the two Particular Premises.

11. (5) Some caps are shirts.

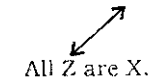


I + A ⇒ I-type of Conclusion
"Some caps are papers."

Conclusion I is true.

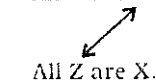
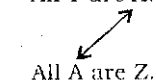
Conclusion II is Converse of the first Premise.
12. (4) Less than 100% means 'some'. Therefore, all the three Premises are Particular Affirmative (I-type). No Conclusion follows from the two Particular Premises.

13. (2) All A are Z.



A + A ⇒ A-type of Conclusion
"All A are X."

All Y are A.



A + A + A ⇒ A-type of Conclusion.

"All Y are X."
This is Conclusion II.

14. (4) Some water is cold.

↙ ↘
No cold is milk.
I + E ⇒ O-type of Conclusion
"Some water are not milk,"

↙ ↘
No cold is milk.
Some milk is water.

E + I ⇒ O-type of Conclusion

"Some water are not cold."

15. (4) All the three Premises are Particular Affirmative (I-type). No Conclusion follows from the two Particular Premises.
16. (3) Nail is clipped with Nail-Cutter. Similarly, Hair is cut with Scissors.
17. (1) The mother of Madhu has only one son Ashok. It means that Madhu is sister of Ashok. Ashok may have more sisters. Therefore, Option (4) is not correct. Ashok has no son. It means that he may have daughters.
18. (3) Song must have words.
19. (1) Except Brother, others indicate Parents and Grandparents.
20. (5) 1 2 3 4 4 3 2 1

1 2 3 4 5 5 4 3 2 1
R I C E ⇒ E C I R I W
W I N G S ⇒ S G N I W

1 2 3 4 5 4 5 1 2 3
S M A R T ⇒ R T S M A

1 2 3 4 5 6 4 5 6 1 2 3
C O U S I N ⇒ S I N C O U

Except in BRAKE : AKRFB, in all others, the order of letters has been changed. But in BRAKE : AKRFB, the letter E has been replaced with F.

(21-25) :

Day	Date	Play
Monday	25th	A
Tuesday	26th	Z
Wednesday	27th	B
Thursday	28th	No Play
Friday	29th	M
Saturday	30th	9
Sunday	31st	X

21. (5) Play A was organised on Monday.

22. (1) Play Z was organised on Tuesday.

23. (2) 28th was 'No Play' day.

24. (4) First Play was organised on 25th.

25. (3) Play Q was organised on Saturday.

(26-30):

(i) The mother of Mukesh and Rakesh is the head of family and she is a Sawyer.

(ii) Mukesh is a teacher and his wife is a doctor. Ajay is son of Mukesh.

(iii) Rakesh is a teacher and his wife Mrs. Reena is a lawyer.

26. (1) Rakesh is a teacher and his wife, Mrs. Reena is a lawyer.

27. (3) Rakesh's wife is a lawyer.

28. (2) Male Members : Mukesh, Rakesh and Ajay.

29. (4) There is no Information about the grandfather of Ajay.

30. (4) There is no Information about the profession of Ajay.

31. (5) It is requested to send another type of letter. It implies that format and emphasis of different types of letters is different. Again, it is clearly mentioned to send an official letter rather than semi-official letter on this subject. Therefore, it is possible to send different types of letters on the same subject.

32. (1) Only assumption I is implicit in the Statement.

The details of passengers* are required for booking the tickets.

33. (5) Clearly, both the assumptions are implicit in the Statement.

34. (4) Neither of the assumptions is implicit in the Statement.

35. (4) The use of term 'only' in the assumption II makes it invalid.

36. (3) The date of birth of Yasir is February 29. It means he was born in a Leap Year.

From statement I:
Leap Year between 2005 and 2011 was 2008.

From statement II;
2012 - 4 = 2008 and 2008 was a Leap year.

37. (1) From Statement I:
Out of 42 students, 38 play both chess and cricket and the remaining four play only cricket. Therefore, no Student plays only chess.

38. (2) From Statement II:

Total number of students in the school

$$= 2000 + 804 + 104 = 2184$$

39. (4) From both the Statements

Geetha > Shilpa

Deepa > Meeta

Sadhana > Sunita

Sadhana > Shilpa, Meeta,

Deepa

It is not clear whether Sadhana or Geetha is the tallest.

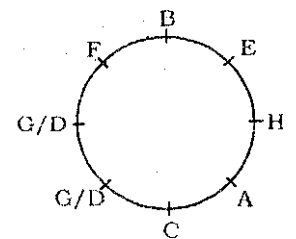
40. (3) From Statement I:

Amit's birthday is on 24th September.

From Statement II:

Last Friday in September 2010 ⇒ 24th

(41-45): Sitting arrangement



41. (4) Either D or G is second to the left of A.

42. (5) F is third to the left of C.

43. (1) C is third to the left of E or fifth to the right of E.

44. (2) E is second to the right of A.

45. (2) G may be adjacent to C.

46. (5) The inference is definitely false. An example cannot support the inference.

47. (4) The inference seems to be false as the use of term 'most' makes the inference doubtful. But the first para talks about the same.

48. (1) Clearly, the inference is definitely true.

49. (2) The advice is meant for all who are associated with business. Therefore, the inference is probably true.

50. (3) In the passage it is mentioned that the author saw the film 'The Wizard of Oz' three times. It does not imply that he watches most movies more than twice.

51. (3) N = P ≤ F ≥ L = K

Conclusions

I. F = K : Not True

II. F > K : Not True

- F is either greater than or equal to K. Therefore, either Conclusion I or II is true.
52. (1) $Z > T < M < J$
 Conclusions
 I. $T < J$: True
 II. $J < Z$: Not True
53. (1) $R \leq Q = Z \leq G \leq C \leq J$
 Conclusions
 I. $G \geq Z$: True
 II. $C \geq R$: Not True
54. (4) $A > B > C, D > E > F, D > C$
 Conclusions
 I. $E > C$: Not True
 II. $F > B$: Not True
55. (5) $O < N \leq M < K < L$
 Conclusions
 I. $O < M$: True
 II. $O < K$: True
- (56-60): First of all the numbers and their preceding letters are arranged. The numbers are arranged in ascending order. Then, the words are arranged in alphabetical but in reverse order.
- Input : any number less than 30 and more than 20 does not equal 40
- Step I : than 20 any number less than 30 and more does not equal 40
- Step n : than 20 than 30 any number less and more does not equal 40
- Step III : than 20 than 30 equal 40 any number less and more does not
- Step IV : than 20 than 30 equal 40 number any less and more does not
- Step V : than 20 than 30 equal 40 number not any less and more does
- Step VI : than 20 than 30 equal 40 number not more any less and does
- Step VII : than 20 than 30 equal 40 number not more less any and does
- Step VIII : than 20 than 30 equal 40 number not more less does any and
- Step VIII is the last step.
56. (5) It is step I.
57. (2) Eight Steps would be required to complete the arrangement.
58. (5) There is no such Option.
59. (3) Option (3) is step III

60. (2) The word 'not' would be on 8th Position from left in Step V.
61. (3) In each subsequent figure one line segment is added to form an arrow. The circle moves half step in anticlockwise direction after every two figures and it becomes shaded alternately.
62. (2) The design moves diagonally in the first step and then one step in anticlockwise direction in the second step. Again the design moves diagonally upward and downward respectively. In each subsequent figure the design is replaced with a new design and after three figures the pattern of design is repeated but in reverse order after being shaded.
63. (5) The number is increasing by one and it moves one step in clockwise direction while the arrow is inverted every time.
64. (5) One line segment is added at the top position. Similarly, one smaller line segment is added at the bottom position.
65. (1) One circle and one Square are added alternately.
66. (2) In the subsequent figures the designs descend and ascend stepwise. Again the two designs from the left interchange positions and the rightmost design moves in the middle in the first step. In the second step, the two designs from the right interchange positions and the leftmost design moves in the middle. These two steps are continued in the subsequent figures alternately.
67. (3) In each subsequent figure three designs are inverted in a set order.
68. (3) In the first step one petal is inverted and a leaflet is formed. In the subsequent figures one petal is inverted and one leaflet is deleted after every two figures.
69. (5) In each subsequent figure one design is inverted and other two designs rotate 45° clockwise and anticlockwise respectively.
70. (2) From Problem Figure (1) to (2), the innermost and the outermost designs interchange positions. Similar changes occur from Problem Figure (3) to (4) and from Problem Figure (5) to Answer Figure.

71. (5) In each subsequent figure one design is added in a set order and the designs rotate respectively 90° anticlockwise, and 45° clockwise alternately.
72. (1) In the subsequent figures the designs move respectively one, one and a half, two, two and a half, three.... steps in clockwise direction. In each subsequent figure one new design is introduced and the adjacent pairs of designs interchange positions.
73. (5) From Problem Figure (1) to (2) all the designs move one step in clockwise direction and the first and the last designs are replaced with new designs. Similar changes occur from Problem Figure (3) to (4) and from Problem Figure (5) to Answer Figure.
74. (1) In the first Step the arrow is replaced with a new design. In the second Step the arrow reappears and the smaller line Segment of the new design is attached with the arrow. In the third step the two designs interchange positions and so on.
75. (5) In each subsequent figure all the designs rotate through 90° anticlockwise, the first design becomes the fourth design and the third design becomes the first design.

76. (1) $475 + \frac{950 \times 64}{100} = 900 + ?$
 $\Rightarrow 475 + 608 - 900 = ?$
 $\therefore ? = 183$

77. (2) $(0.4)^3 \times (0.4)^7$
 $= (0.4)^7 \times (0.4)^{10}$
 $= (0.4)^{17} = (0.4)^3 \times (0.4)^{14}$
 $\Rightarrow (0.4)^{10} = (0.4)^7$
 $\Rightarrow ? = 2$

78. (3) $534.596 + 61.472 - 496.708$
 $= ? + 27.271$
 $\Rightarrow 99.36 = ? + 27.271$
 $= 72.089$

79. (5) $16 \times 12 - \frac{672}{21} = ? - 211$
 $\Rightarrow 192 - 32 = ? - 211$
 $\therefore ? = 160 + 211 = 371$

80. (4) $(\sqrt{5} - 2)^2 = ? - \sqrt{80}$
 $\Rightarrow 5 + 4 - 4\sqrt{5} = ? - 4\sqrt{5}$
 $\Rightarrow 9 - 4\sqrt{5} = ? - 4\sqrt{5}$
 $\therefore ? = 9$

81. (4) $? \approx 9230 - 5022 + 1500$
 ≈ 5708
 Required answer = 5700

82. (1) $? = \frac{1000}{50} \times 100 - 1300$
 $\approx 2000 - 1300 = 700$

83. (4)
 $? = \frac{260 \times 30}{100} + \frac{510 \times 60}{100} - 100$
 $\approx 78 + 306 - 100 = 284$
 \therefore Required answer = 280

84. (1) $? \approx (22)^2 - (25)^2 + (13)^2$
 $\approx 484 - 625 + 169 = 28$
 \therefore Required answer = 25

85. (5) $? \approx \sqrt{2500} \times \sqrt{625} + \sqrt{100}$
 $\approx 50 \times 25 \times \frac{1}{10} = 125$

86. (2) The pattern of the number series is :
 $7 \times 2 + 6 = 20$
 $20 \times 2 + 6 = 46$
 $46 \times 2 + 6 = 98$
 $98 \times 2 + 6 = 202$

$202 \times 2 + 6 = 404 + 6 = \boxed{410}$

87. (2) The pattern of the number series is :
 $210 - 1^3 = 209$
 $209 + 2^2 = 213$
 $213 - 3^3 = 186$
 $186 + 4^2 = 202$

$202 - 5^3 = 202 - 125 = \boxed{77}$

88. (5) The pattern of the number series is :
 $27 + 11 = 38$
 $38 + 33 = 71$
 $71 + 55 = 126$
 $126 + 77 = 203$

$203 + 99 = \boxed{302}$

89. (3) The pattern of the number series is :
 $435 - 9 \times 9 = 354$
 $354 - 9 \times 8 = 282$
 $282 - 9 \times 7 = 219$
 $219 - 9 \times 6 = 165$

$165 - 9 \times 5 = \boxed{120}$

90. (3) The pattern of the number series is :
 $4 + 14^2 = 4 + 196 = 200$
 $200 + 13^2 = 200 + 169 = 369$
 $369 + 12^2 = 369 + 144 = 513$

$513 + 11^2 = 513 + 121 = 634$

$634 + 10^2 = 634 + 100 = \boxed{734}$

91. (2) $2x + 4x + 7x + 5x = 360^\circ$
 $\Rightarrow 18x = 360^\circ$
 $\Rightarrow x = \frac{360^\circ}{18} = 20^\circ$

\therefore Smallest angle of the triangle
 $= 2 \times 20^\circ = 40^\circ$
 Second angle = $2 \times 40^\circ = 80^\circ$
 \therefore Required angle
 $= 180^\circ - 80^\circ - 40^\circ$
 $= 60^\circ$

92. (5) Required amount of commission
 $= \text{Rs.} \left(\frac{10 \times 45 \times 4}{100} + \frac{80 \times 20 \times 6}{100} \right)$
 $= \text{Rs.} (18 + 96) = \text{Rs.} 114$

93. (1) If the length of train-B be x metre, then

Speed of train = $\frac{240 + x}{50} = \frac{240}{20}$

$\Rightarrow \frac{240 + x}{50} = 12$

$\Rightarrow 240 + x = 600$

$\Rightarrow x = 360$ metre

94. (5) If the maximum marks be x , then
 $40\% \text{ of } x = 483 + 117$

$\Rightarrow \frac{x \times 40}{100} = 600$

$\Rightarrow x = \frac{600 \times 100}{40} = 1500$

\therefore Minimum passing marks for girls

$= \frac{1500 \times 35}{100} = 525$

95. (4) Suresh's monthly salary

$= \frac{108000}{12} = \text{Rs.} 9000$

Nandini's monthly salary

= Rs. 18000

\therefore Kaushal's monthly salary \times

$\frac{12}{100}$

$= \frac{18000 \times 16}{100} = 2880$

\therefore Kaushal's monthly salary

$= \left(\frac{2880 \times 100}{12} \right)$

= Rs. 24000

96. (1) 8×20 men = 8×32 women
 $\Rightarrow 5$ men = 8 women
 5 men + 8 women = 16 women
 $M_1 D_1 = M_2 D_2$
 $\Rightarrow 8 \times 32 = 16 \times D_2$
 $\Rightarrow D_2 = \frac{8 \times 32}{16} = 16$ days

97. (5) Side of the square

= $\sqrt{1024} = 32$ cm.

\therefore Length of rectangle

= $2 \times 32 = 64$ cm.

Breadth of rectangle

= $32 - 12 = 20$ cm.

\therefore Required ratio

= $64 : 20 = 16 : 5$

98. (5) $x + x + 2 + x + 4 + x + 6 + x + 8 = 220$

$\Rightarrow 5x + 20 = 220 \Rightarrow x = 40$

Second lowest number of different set

= $2 \times 40 - 37 = 43$

\therefore Required sum

= $42 + 43 + 44 + 45 + 46 = 220$

99. (1) Bus fare = Rs. 420

Train fare = $2 \times 420 \times \frac{3}{4}$

= Rs. 630

\therefore Required total fare

= Rs. $(2 \times 420 + 4 \times 630)$

= Rs. $(840 + 2520)$

= Rs. 3360

100. (1) Speed of tractor = $\frac{360}{12}$

= 30 kmph

Speed of jeep = $30 \times \frac{250}{100}$

= 75 kmph

\therefore Speed of car

= $\frac{3}{5} \times 75 = 45$ kmph

\therefore Average speed of car and jeep together

= $\left(\frac{75 + 45}{2} \right)$ kmph

= 60 kmph

101. (1)

I. $5x^2 - 18x + 9 = 0$

$\Rightarrow 5x^2 - 15x - 3x + 9 = 0$

$\Rightarrow 5x(x - 3) - 3(x - 3) = 0$

$\Rightarrow (x - 3)(5x - 3) = 0$

$\therefore x = 3$ or $\frac{3}{5}$