IBPS SO Preliminary Grand Test –ISP-181204

HINTS & SOLUTIONS

ANSWER KEY

1. (4)	26. (4)	51. (5)	76. (1)	101. (5)	126. (3)
2. (1)	27. (5)	52. (5)	77. (5)	102. (1)	127. (4)
3. (3)	28. (4)	53. (2)	78. (2)	103. (5)	128. (1)
4. (3)	29. (2)	54. (1)	79. (3)	104. (4)	129. (5)
5. (2)	30. (3)	55. (4)	80. (1)	105. (1)	130. (1)
6. (1)	31. (1)	56. (2)	81. (1)	106. (4)	131. (2)
7. (1)	32. (2)	57. (3)	82. (2)	107. (3)	132. (2)
8. (1)	33. (3)	58. (2)	83. (1)	108. (2)	133. (3)
9. (3)	34. (2)	59. (5)	84. (5)	109. (3)	134. (1)
10. (4)	35. (5)	60. (3)	85. (3)	110. (1)	135. (1)
11. (4)	36. (4)	61. (1)	86. (3)	111. (3)	136. (3)
12. (5)	37. (1)	62. (3)	87. (3)	112. (1)	137. (1)
13. (2)	38. (4)	63. (3)	88. (3)	113. (4)	138. (4)
14. (1)	39. (3)	64. (5)	89. (5)	114. (5)	139. (1)
15. (2)	40. (5)	65. (4)	90. (4)	115. (4)	140. (4)
16. (5)	41. (1)	66. (1)	91. (3)	116. (4)	141. (1)
17. (3)	42. (5)	67. (1)	92. (3)	117. (3)	142. (3)
18. (2)	43. (4)	68. (5)	93. (4)	118. (4)	143. (2)
19. (4)	44. (2)	69. (4)	94. (3)	119. (1)	144. (1)
20. (1)	45. (5)	70. (3)	95. (5)	120. (2)	145. (1)
21. (3)	46. (1)	71. (4)	96. (2)	121. (1)	146. (4)
22. (5)	47. (4)	72. (4)	97. (3)	122. (2)	147. (1)
23. (4)	48. (4)	73. (1)	98. (4)	123. (2)	148. (2)
24. (5)	49. (2)	74. (2)	99. (1)	124. (4)	149. (3)
25. (2)	50. (2)	75. (1)	100. (5)	125. (3)	150. (2)

HINTS & SOLUTIONS

1. (4) All are socialists, though Robespierre has been mentioned as an example of a person who till now was thought to be a typical instance of attributes needed for being a revolutionary socialist, does come up to them.

2. (1) Refer to the line from paragraph 2…,"Whatever may be the difficulties of the first of these two forms of socialism, the second must evidently involve the same difficulties and many more" which explains that option (1) is the right answer choice.

3. (3) The answer to this question can be found in paragraph 1 of the passage. It explains that the first believe in gradual change while the others believe in revolutionary change. Option (3) is the right choice.

4. (3) Option (3) does not find a mention in the passage.

5. (2) It is directly given in the passage that the aim of revolutionary socialism is to take over everything and then things in one go. This makes option (2) the correct answer.

6. (1) The author does not exhibit sympathies for any one side in particular. He adopts a descriptive approach in the passage

7. (1) Subversion means overthrowing something, like a government or law hence fealty is the word most opposite in meaning.

8. (1) Serene means calm, peaceful, and untroubled; tranquil hence perturbed is the word most opposite in meaning.

9. (3) Avow means 'To declare or affirm solemnly and formally as true'. Proclaim means "Declare formally; declare someone to be something; of titles'.

10. (4) Misery means a state or feeling of great physical or mental distress or discomfort hence forlorn is the word most similar in meaning.

11-15. The sequence after rearranging the sentences is **EACBFD**

11. (4)
12. (5)
13. (2)
14. (1)
15. (2)

16. (5) Relying means to depend on with full trust or confidence.

17. (3) 'opportunities unemployable' fits the blank perfectly.

18. (2) **Provoked** means to stimulate or give rise to (a reaction or emotion, typically a strong or unwelcome one) in someone.

19. (4)
20. (1)

21. (3) If (D) is the first sentence, the correct sequence of other sentences after rearrangement should be FBCEA. The phrase "a new democratic society" in the sentence (F) suggests that it should follow the first sentence. Similarly, (B) and (C) make another combination. Hence sentences in the sequence of DFBCEA form a coherent paragraph which is about the historical evolution of elite wealth relative to GDP. Hence (3) is the correct option.

22. (5) If sentence (A) is the last sentence of the paragraph, the sentences in the sequence of BDCEA form a coherent paragraph which is about the need of bringing reformation in the Economics curriculum. However, the sentence (F) finds no alternative to be matched with as it talks about a recently released textbook called "The Economy" which would fill up the certain gap, something which has no relevance from any other sentences among the given options. Hence (5) is the correct option as the sentence (F) does not belong to the paragraph so formed.

23. (4) All the options except (4) give different meanings to the sentences given to the question. They are not properly integrated to come out with the most logical order and meaning of the sentence as has been the case with the

sentence (4). Moreover, there are certain grammatical errors in each of these sentences which make the meaning more perplexing. In the case of the sentence (d), the use of the connector "While" adds the perfect meaning to the sentence which correctly describes the theme. Hence only option (4) forms a sentence which is both grammatically correct and contextually meaningful.

24. (5) The sentence is grammatically correct and follows the correct grammar structure to bring out the most desirable and appropriate meaning. None of the parts requires any correction; thus (5) is the correct option.

25. (2) The phrase "**Augean stables**" means a condition or place marked by a great accumulation of filth or corruption. In this case, the phrase is used in reference to all those firms which are illegally carrying out corruption. Among the given three statements, only (III) provides the correct and exact meaning of the phrase without altering the meaning of the original sentence. Though sentence (I) also provides a good explanation, it is too vague to justify the exact meaning of the phrase. Similarly, sentence (II) gives the incorrect explanation of the phrase. Thus both these statements are not correct in the context of their phrasal meanings. Hence (2) is the correct option.

26. (4)

27. (5) There is no correction required.

28. (4) The main verb is 'strike' and its past participle form is 'struck' which should be used, between option (2) and (4), option (4) is correct but option (2) is incorrect as it has an additional preposition 'for'.

29. (2) Replace 'have' with 'had' as the given sentence is in past tense.

30. (3)

31. (1) Refer to the fourth paragraph of the passage, "The circular warned retired employees that "negative comments" would result in the "cessation of post-retirement facilities". Hence only statement (II) is correct.

32. (2) Refer to the first line of the first paragraph of the passage where it is mentioned that Air India would lost its status as 'national carrier' in the hands of private owner. Hence only sentence (II) is correct in context of the passage.

33. (3) As per the passage, the sentences (1) and (2) are not the reasons behind stake sale of Air India. Only sentence (3) is the correct reason as the Airline has been running in loss so the government is disinvesting its stake to the private firms.

34. (2) "Bowing to privatisation" is the suitable title of the passage. According to the passage, the government is inclined to privatize its airlines Air India by selling its stake to the private owners. Hence option (2) is the correct answer.

35. (5) All of the above statements are parts of the passage.

36. (4) Referring to the third paragraph of the passage, we find that only sentence (I) is not the concern of AISAM. Hence the sentences (II), (III) and (IV) are correct.

37. (1) **Incongruous** means not in harmony or keeping with the surroundings or other aspects of something. Hence it has same meaning as **bizarre**.
Superficial means appearing to be true or real only until examined more closely.

Vague means of uncertain, indefinite.
Fugacious means tending to disappear; fleeting.

38. (4) **Egregious** means outstandingly bad; shocking. Hence it has same meaning as **atrocious**. **Impalpable** means intangible (unable to be felt by touch).
Assiduous means hard working.
Amicable means agreeable.
Trivial means of less importance.

39. (3) **Imponderable** means a factor that is difficult or impossible to estimate or assess. Hence it has opposite meaning as **assessable**.
Intuitive means instinctive.
Jubilation means joy.
Flagrant means conspicuously or obviously offensive.
Adulation means high praise.

40. (5) **Vacuous** means having or showing a lack of thought or intelligence; mindless. Hence it has opposite meaning as **intelligence**.
Anachronistic means out of date.
Pretentious means self-important.
Perfidious means disloyal.
Inevitable means unavoidable.

41. (1) Substitute 'their' for 'its' because 'officers' are plural.

42. (5) No error.

43. (4) Substitute 'blocked' for 'had block'

44. (2) Delete 'that'.

45. (5) There is no error in the statement.

46. (1) use 'women' in place of 'woman'.

47. (4) replace 'waiting' with 'left'.

48. (4) Replace 'under' with 'within'

49. (2) Replace 'mine' with 'mining'

50. (2) Change 'respectively' into 'respectfully'.

51. (5) (I) A < X (False)
(II) W ≤ N(False)
(III) W > X(False)

52. (5) (I) C < P (False)
(II) T ≥ H (True)
(III) C < H (False)

53. (2) (I) R > T (False)
(II) R ≤ T (False)
(III) Q < O (False)

54. (1) (I) J > R (False)
(II) M < T (False)
(III) M < J (False)

55. (4) (I) J > Z (False)
(II) J > K (False)
(III) K > M (True)

56. (2)

Only I and III statements are necessary.

57. (3) I. R A _ G   II. N _ E
III. A _ _ E
Statements I and II are sufficient to answer.

58. (2) From I- Neetu's ank will be helpful in obtaining Babita's rank and the latter's rank will be helpful in obtaining Ritika's rank.

From II & III – Kamla's rank will be helpful in obtaining Babita's rank and the latter will be helpful in obtaining Ritika's rank.

59. (5) From The first statement S can be either mother or father of T. From the second statement we can say that G is the mother of T. So we can say that S is not the mother of T. Hence the answer can be obtained from I & II both statements.

60. (3) From statement I, K is facing the centre and A is third to the right of K. Now if A is facing the centre, the person on his second right should be K but it is given B. So A is not facing the centre i.e. all of them are not facing the centre.

Similarly from statement II, if all are facing the centre, then second to the right of C should be F but it is given as K which means all of them are not facing the centre.

61-65. (i) From the condition, E and G are from same room and their room is an even numbered room, It means E and G can be from room 18 or 12. H is not from room number 18 but he is from even numbered room, so H is from room number 12, hence E&G are from room 18. A is from even numbered room, hence A is from room 12. G's room is painted with pink colour.

(ii) F and B are not from same room. B is not with I and J. J is from room number 13, so B is not from room 13. I is not from room number 21 and also not with J, so I is from room 17, hence B is from room 21. B's room is painted with yellow colour. F is not with I, so F is from room 13.

(iii) C is not from room number 21, so C is from room 17 and D is from room 21. Red colour is painted in an even numbered room, so red colour is painted in room number 12. Blue colour is painted in J's room, so room number 17 is painted with blue colour and room 13 is painted with green colour.

Room Number	Members	Colour
12	AH	Red
13	FJ	Green
17	CI	Blue
18	EG	Pink
21	BD	Yellow

61. (1)
62. (3)
63. (3)
64. (5)
65. (4)

66. (1) Why was the airport was put on a full alert? The authority must be assuming assumption I. Hence, Assumption I is implicit but II is not. Again, to put the airport on a full alert indicates that the authority must be assuming assumption III also.

67. (1) Only assumption I is implicit. III is not implicit because the reason behind this decision is that the witnesses or victims can't be felt any problem regarding the case. They can be pressurized by the accused to change their witnesses. The decision is not given because of the court's immediate concern for the victims.

68. (5) Only I follows. What is being told is genuine .On learning this, the blood donors will get attracted by the win-win proposition, thus simultaneously meeting the blood requirement to a large extent. Statement II is not a practical course of action. Statement III is not an immediate course of action as blood banks can be created only after the sufficient blood donors are available.

69. (4) Action I is the right course of action because training to the staff as to safety aspects of handling explosive material will reduce the chances of such accidents in future .Action II is also a right course as it will work as deterrent to check any negligence, in such work.

70. (3) statement (c) is the correct option because according to this the increase in crime rate has been contributed by other factors , not leniency in the punishment. so it weakens the given passage.

71-75. In this puzzle, there is a blood relation tree in which there are three generation and two married couple. Y who is grandson of V. Z is brother of V and paternal Uncle of M. W is maternal uncle of Y. V has only one son. P and D are sister in which P is the mother in law of X where Y is unmarried.
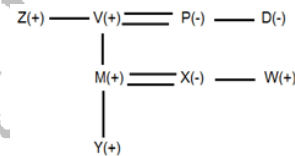

Now, we should do the arrangement of this family on a circular table, in which there is a condition that W, who is maternal uncle of Y, sits between Y and M and sits opposite to the one who likes Blue. The one who likes Blue, faces opposite to centre. There is one member between Y and M who likes Red. Y who is grandson of V, sits 3rd right of D and faces opposite to centre. For these conditions, there are three cases.
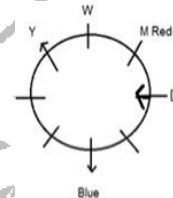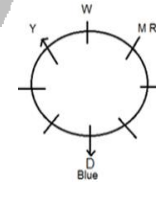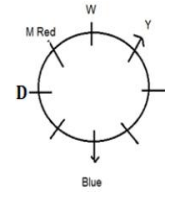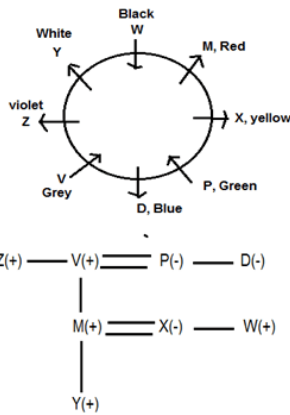
Case 1 : **Case 2 :** **Case 3 :**

Now, there is one condition in which M is not the immediate neighbor of D, so **Case-1 and Case-3 will be** eliminated. It is also given that the one who sits 2nd left of Y, likes Grey.

Now in case2, X is immediate neighbor of M. P likes Green sits immediate right of X who likes Yellow. Z sits opposite to X and likes Violet. The immediate neighbors of D, faces towards Centre. The one, who sits 2nd left of Y, likes Grey. The one, who likes Black, faces Centre. Three are facing towards the centre and rest is facing opposite to centre. So final answer is

Z(+) —— V(+) ═══ P(-) —— D(-)

M(+) ═══ X(-) —— W(+)

Y(+)

71. (4)
72. (4)
73. (1)
74. (2)
75. (1)
76. (1)

77. (5)

78. (2)

79. (3)

80. (1)

81-85. Step 1.

From the information given in the question,

Same numbers of men are living above and below P. It means P is living on fourth floor.

Only three men live above the floors on which the one who fasted for the longest number of days lives. There is only one men living below the one who fasted for nineteen days. It means that the man who lives on second floor fasted for nineteen days. Only one men lives between P and the one who is married to O which means there will be two possibilities (one in which O lives on second floor and other in which O lives on sixth floor) as show in case1. and case2. below. Only three men live between the ones who is married to O

and E. The one who is married to N, lives on an even numbered floor. It means P is married to N as there is no other possibility. U who fasted for twelve days lives immediately below the one who is married to N. T is not married to E. Only one man fasted for more number of days than the one who lives on fifth floor.

We get,

CASE-1			
Floor	Husband	Wife	Days
7			
6		E	
5			Second Longest
4	P	N	Longest
3	U		12
2		O	19
1			

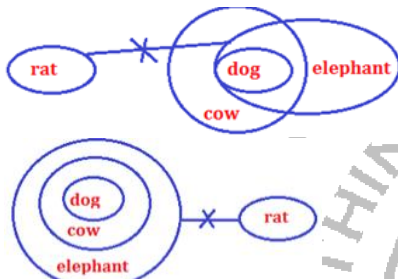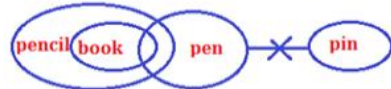| CASE-2			
Floor	Husband	Wife	Days
7			
6		O	
5			Second Longest
4	P	N	Longest
3	U		12
2	T̶	E	19
1			

Step 2.

Proceeding with remaining information,

Only two men live between Q and the one who is married to B. Q fasted for three days. The one who is married to B, lives below the floor on which Q lives. It means Q lives on sixth floor and U is married to B. T lives immediately above R. So our case 2 will be eliminated as such an arrangement is not possible in that case. From case-1, T will be the one who lives on second floor and R will be the one who lives on first floor.

We get,

CASE-1			
Floor	Husband	Wife	Days
7			
6	Q	E	3
5			Second Longest
4	P	N	Longest
3	U	B	12
2	T	O	19
1	R		

C̶A̶S̶E̶ 2̶ (Eliminated)			
Floor	Husband	Wife	Days
7			
6	Q	O	3
5			Second Longest
4	P	N	Longest
3	U	B	12
2	T̶	E	19
1			

Step 3.

Proceeding with remaining information,

The one who is married to C does not live immediately above or immediately below Q. It means R is the one who is married to C. S does not live immediately above or immediately below P. It means S lives on seventh floor and V lives on fifth floor. The difference between the number of days for which V and the husband of O fasted is equal to the number of mens living between them. It means V either fasted for 21 or 17 day. But since we know that V fasted for second highest duration, it means he must have fasted for 21 days. The number of days P fasted is equal to the sum of the days for which V and T fasted. So P fasted for 21 + 19 = 40 days. V is not married to A. It means V is married to D and S is the one who is married to A. The difference between the number of fasting days of Q and T is equal to the number of day for which the one who lives on the top floor fasted which means that the men who lives on top floor fasted for 19

– 3 = 16 days. The difference between the numbers of fasting days of the men living on the top two floors is equal to the number of days for which R fasted which means R fasted for 16 – 3 =13 days.

We get our final solution as,

Floor	Husband	Wife	Days
7	S	A	16
6	Q	E	3
5	V	D	21
4	P	N	40
3	U	B	12
2	T	O	19
1	R	C	13

81. (1)
82. (2)
83. (1)
84. (5)
85. (3)

86-90.

FRIENDS	COLLEAGUE	MARKET	ITEMS
G	M/N	Janpath	Clothes
H	X	Lajpat	Jewellery
I	Z	Sarojini	Jewellery
J	M/N	Janpath	Footwear
K	Y	Chandni chowk	Bag
L	O	Connaught place	Footwear

86. (3)
87. (3)
88. (3)
89. (5)
90. (4)

91-93.
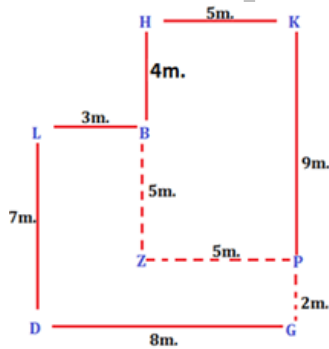
91. (3)
92. (3)
93. (4)
94. (3)
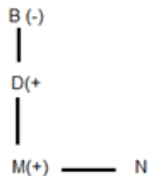
95. (5) There is no such option in which J is son of F. So none of these will be our answer.

96 – 100.

Student	Subject	Sport
P	Biology	Cricket
Q	History	Badminton
R	Philosophy	Hockey
S	Geography	Basket Ball
T	English	Football
V	Physics	Table Tennis
W	Chemistry	Volleyball

96. (2)
97. (3)
98. (4)
99. (1)
100. (5)

101. (5) I. $3x^2 – 19x + 28 = 0$
$3x^2 – 12x – 7x + 28 = 0$
$3x (x - 4) – 7 (x - 4) = 0$
$x = 4, \frac{7}{3}$
II. $4y^2 - 19y + 21 = 0$
$4y^2 – 12y – 7y + 21 = 0$
$4y(y - 3) – 7 (y - 3) = 0$
$y = 3, \frac{7}{4}$
Relation cannot establish

102. (1) $3x + 4y = 2$ ...(i)
$6x + 2y = 2.5$ ...(ii)
Solving (i) & (ii)
$x = \frac{1}{3}, y = \frac{1}{4}$
$x > y$

103. (5) $8x + 7y = –60$ ...(i)
$7x – 5y = –8$ ..(ii)
On solving (i) & (ii)
We get $x = –4, y = –4$
$x = y$

104. (4) $12x^2 - 41x + 35 = 0$
$12x^2 – 20x – 21x + 35 = 0$
$4x(3x - 5) – 7(3x - 5) = 0$
$x = \frac{5}{3}, \frac{7}{4}$
II. $28y = 49$
$y = \frac{49}{28} = \frac{7}{4}$
$y \geq x$

105. (1) $I. x^3 = – 1331$
$x = -11$
II. $2y – 3 (-11) = –53$
$2y + 33 = –53$
$y = –43$
$\therefore x > y$

106. (4) $(A + B)'$ 4 days work $= \frac{4}{8} = \frac{1}{2}$
B's 2 days work $= \frac{2}{12} = \frac{1}{6}$
$\therefore$ Remaining work $= 1 - \left(\frac{1}{2} + \frac{1}{6}\right)$
$= \frac{1}{3}$
$\therefore \frac{\frac{1}{3}}{\frac{1}{12}} = 4$ days = days that C require

107. (3) Let the time taken by train A when it meet = t
Let the time taken by train B when it meet = (t – 1)
$\therefore 60 t + 75 (t – 1) = 330$
T = 3 hrs
$\therefore$ both train will meet at 11 AM.

108. (2) Speed of current = 4 km/hr
Speed of rowing in still Water = x km/hr
Distance (d) $= \frac{42}{2} = 21$ km
Then, $\frac{21}{x-4} = 2 + \frac{21}{x+4}$
$21\left(\frac{1}{x-4} - \frac{1}{x+4}\right) = 2$
$x^2 = 100$
x = 10 km/h

109. (3) Let amount = 100
$\Rightarrow$ for compound interest $\Rightarrow 100 \rightarrow 121$
Simple interest $\Rightarrow 100 \rightarrow 120$
$\Rightarrow 1 \rightarrow 28$
$\Rightarrow$ Principal = 2800
$\Rightarrow$ 2800 when, compounded half- yearly.

3403.41   3360
C.I.   S.I.

Difference = 43.41

110. (1) Profit ratio of A, B and C is $(1200 \times 12):(x \times 9):(y \times 6) = 2:3:5$
Taking first and second terms we get
$1200 \times 12 : 9x = 2:3$
$1200 \times 12 \times 3 = 9x \times 2$
$\therefore x = \frac{1200 \times 12 \times 3}{18} = 2400$

111. (3) Profit of B in 2011 = $200 - 200 \times 64\% = 72$ lakh
Profit of A in 2006 = 72 lakh
Now profit percent = $\frac{72}{150-72} \times 100 = 92.31\%$

112. (1) Expenditure of A = $\frac{100 \times 100}{200} = 50$ lakh
Expenditure of B = $\frac{150}{150} \times 100 = 100$ lakh
Expenditure of C = $\frac{200 \times 300}{400} = 150$ lakh
Required average = $\frac{50+100+150}{3} = 100$ lakh

113. (4) Expenditure of C in 2007 is not given Can't determined

114. (5) Income of B & C in 2010 = $250 + 150 = 400$ lakh
Expenditure of B in 2006
$= \frac{200}{125} \times 100 = 160$ lakh
Required percentage = $\frac{400}{160} \times 100 = 250\%$

115. (4) Income of B = $(200 + 150 + 150 + 200 + 150 + 200)$
$= 1050$ lakh
Income of C = $(250 + 100 + 200 + 200 + 250 + 150)$
$= 1150$ lakh
Required difference = 100 lakh

116. (4) Ratio of investments of A, B and C
$= \left(\frac{7}{2} \times 4 + \frac{105}{20} \times 8\right) : \frac{4 \times 12}{3} : \frac{6 \times 12}{5}$
$\Rightarrow 56 : 16 : 14.4$. Therefore, B' share
$= \frac{16}{86.4} \times 21600 = Rs.\ 4,000.$

117. (3) Three vowels can be placed in
3 odd places in $^3c_3 \times 3!$
= 6 ways
Total ways = $6 \times 3! = 36$

118. (4) Taking 3 particular persons as single entity,
we have $12 - 3 + 1 = 10$ persons to be seated.
No. of ways of seating these 10 persons
$= (10 - 1)! \times 3! = 9! \times 3!$
Total no. of ways of seating 12
persons = $(12 - 1)! = 11!$
Required probability $= \frac{9! \times 3!}{11!} = \frac{3 \times 2}{11 \times 10} = \frac{3}{55}$

119. (1) Let no. of wickets = x
Total runs given till last match = $12.4 \times x$
$\frac{12.4x + 26}{x+5} = 12, x = 85$

120. (2)
9%   10%
$9\frac{3}{7}\%$
4   :   3

$9\frac{3}{7}\%$ 12%
10%
2   : $\frac{4}{7}$
7   :   2
So the ratio of all types of pen = $4:3:2$
No. of pens = 200, 150, 100

121. (1) $4.44 + 44.44 + 444.4 - 3.333 + 33.33 + 333.3 = x$
$4(123.321) - 3(123.321) = x$
$(4 - 3)(123.321) = x$
$x = 123.321$
$x \approx 123$

122. (2) $(36)^2 + \sqrt{1448} = x^2 + 12 \times 8$
$1296 + 38 = x^2 + 108$
$x^2 = 1226$
$x \approx 35$

123. (2) $\frac{18 \times 440}{100} + \frac{23 \times 630}{100} - (2) \times \frac{36 \times 800}{100} + 232 = x$
$79.2 + 144.9 - 576 + 232 = x$
$x \approx -120$

124. (4) $439 + 2230 - \frac{198 \times 50}{100} - 2058 = 2^x$
$512 = 2^x$
$2^x = 2^9$
$x = 9$

125. (3) $\left[8 \times 1 \div 2 \times 38 - \frac{(118 \times 200)}{100}\right] \times 2 = x$
$\left[\frac{8}{2} \times 38 - 118 \times 2\right] \times 2 = x$
$x = -168$

126. (3) Req. Ratio = $\frac{\frac{48}{360} \times 4800}{\frac{60}{100} \times \frac{48}{360} \times 4800 + \frac{30}{100} \times \frac{39}{360} \times 7200}$
$= \frac{640}{384 + 234}$
$= \frac{640}{618}$
$= \frac{320}{309}$

127. (4) Req. Percentage = $\frac{\frac{196}{360} \times 7200}{\frac{246}{360} \times 14400} \times 100 = 39.83\%$

128. (1) Expense on education
$= \frac{48}{360} \times 4800 + \frac{70}{360} \times 7200$
$= 2040$
Expense on rent = $\frac{90}{360} \times 4800 + \frac{70}{360} \times 7700$
$= 2600$
Req. percentage = $\frac{(2600-2040)}{2600} \times 100$
$= 21.53\%$

129. (5) Req. ratio = $\frac{\frac{18}{360} \times 4800}{\frac{39}{360} \times 7200}$
$= \frac{4}{13}$
(Note: Doubled expenses don't alter the ratio)

130. (1)

Item	Difference	
Clothing	$\frac{56}{360} \times 7200 - \frac{60}{360} \times 4800$	= 320
Rent	$1400 - 1200$	= 200
Food	$2200 - 1280$	= 920
Misc.	$780 - 640$	= 140
Light	$300 - 240$	= 60
Education	$1400 - 640$	= 760

131. (2) Tom (100%) = Total amount
20% to Ali   40%
25% \ 35%   8% = 2800
5%   7%   ×350
$\Rightarrow 100\% = $ Rs 35000 = Initial amount Tom have
×350

132. (2) Milk + Water = 40l 15l 6l (water)
34 l rest milk
After selling 10l of mixture and adding 12.5l of water to the remaining mixture;
Milk = $34 - \frac{85}{100} \times 10 = 34 - 8.5 = 25.5\ l$
Water = $6 - \frac{15}{100} \times 10 + 12.5 = 4.5\ l + 12.5$
$\Rightarrow 17\ l$
$\therefore$ New ratio $\Rightarrow$ milk : Water
$= 3:2$

133. (3) Let C.P. of Article = 1000

M.P. = 1200

Selling price = 1200 – 10% of 1200 = 1080

Now he cheat at buying and selling by 100 gram →

At buying → 1000 → 1100

So cost price of 1100 → 1000

At time of selling → 900 → 1000

Then cost price of 900 $\Rightarrow \frac{1000}{1100} \times 900$

$= \frac{9000}{11}$

Selling percentage $= \frac{1080}{\frac{9000}{11}} \times 100$

= 132%

Profit = 132 – 100 = 32%

134. (1) $\frac{x \times 4 \times 2}{100} + \frac{(1200-x) \times 5 \times 2}{100} = 110$

8x + 12000 – 10x = 11000

2x = 1000

x = 500,

hence,

Money lent at 4% is Rs 500

And lent at 5% is Rs 700

135. (1)

P : Q : R | P : Q : R

6 : 19 : 7 | 3 : 10 : 3

32×1 | 16×2

             | 6 : 20 : 6

∴ Now ratio

P : Q : R

6 : 19 : 7

6 : 20 : 6

difference → 1 = 200

⇒ Total = 32 = Rs 6400

136. (3) 6× 2 = 12, 12 × 3 = 36, 36 × 4 = 144, 144 × 5 = 720 ≠ 722

137. (1) $21^3 = 9261, 19^3 = 6859 ...., 11^3 = 1331 \neq 1321$

138. (4) All are prime numbers except 57

139. (1) Three are two series

8, 16, 32, 64, & 12, 24, 48, 96, ≠ 98

140. (4) 2 × 7 – 1 = 13, 13 × 6 – 2 = 76, 76 × 5 – 3 = 377, 377 × 4 – 4 = 1504 ≠ 1506

141. (1) Number of boys in A, C & E

$= \frac{30}{360} \times 18000 + \frac{54}{360} \times 18000 + \frac{76}{360} \times 18000 = 1500 + 2700 + 3800 = 8000$

Number of Girls in B and C

$= \frac{40}{360} \times \frac{18000}{8} \times 3 + \frac{54}{360} \times \frac{18000}{5} \times 5 = 750 + 3375 = 4125$

Required difference = 8000 – 4125 = 3875

142. (3) Number of Girls in school D

$= \frac{72}{360} \times \frac{18000}{12} \times 13 = 3900$

Number of Boys in B & C

$= \frac{40}{360} \times 18000 + \frac{54}{360} \times 18000 = 2000 + 2700 = 4700$

Required ratio = 3900 : 4700 = 39 : 47

143. (2) Number of Girls in A, E and F

$= \frac{30}{360} \times \frac{18000}{2} \times 3 + \frac{76}{360} \times \frac{18000}{19} \times 20 + \frac{88}{360} \times \frac{18000}{5} \times 8$

= 2250 + 4000 + 7040

= 13290

Required average $= \frac{13290}{3} = 4430$

144. (1) Number of Girls in F

$= \frac{88}{360} \times \frac{18000}{5} \times 8 = 7040$

Number of Boys of D + No. of Girls of B

$= \frac{72}{360} \times 18000 + \frac{40}{360} \times \frac{18000}{8} \times 3 = 3600 + 750 = 4350$

Required % $= \frac{(7040-4350)}{4350} \times 100 \approx 62\%$

145. (1) No. 20% of the girls of school E

$= \frac{20}{100} \times \frac{76}{360} \times \frac{18000}{19} \times 20 = 800$

New number of girls in school B

$= \frac{40}{360} \times \frac{18000}{8} \times 3 + 800 = 750 + 800 = 1550$

Number of boys in school B

$= \frac{40}{360} \times 18000 = 2000$

Required ratio 1550 : 2000 = 31 : 40

146. (4) Average annual growth rate

$= \frac{1}{2} \times \left[\frac{(4600 + 3800 + 1800) - (3820 + 2460 + 544)}{(3820 + 2460 + 544)} \right] \times 100$

$= \frac{1}{2} \times \frac{(10200 - 6824)}{6824} \times 100$

= 24.73%

147. (1) Average amount spent in 1998

$= \frac{3820 + 2460 + 544}{3} = \frac{6824}{3} = 2274.66$

≈ 2275

Req. percentage $= \frac{3800 - 2275}{2275} \times 100$

$= \frac{1525}{2275} \times 100 = 67.03\%$

148. (2) Req. Percentage $= \frac{\frac{25}{100} \times 610}{(4120 + 2900 + 610)} \times 100$

$= \frac{15250}{7630} = 1.99\%$

≈ 2%

149. (3) Difference

$\frac{(2460 + 544 + 2900 + 610 + 3800 + 1800)}{3}$

$\sim \frac{(3820 + 4120 + 4600)}{3}$

$= \frac{12114 \sim 12540}{3}$

$= \frac{426}{3}$

= 142

150. (2)

Year	% share of print media
1998	55.97%
1999	53.99%
2000	45.09%