

IBPS SPECIALIST OFFICER PRELIMS-2021. ISP-2021-110022

HINTS AND SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTIONS

1. (3) Read the passage, it can be easily verified that statements (I) and (II) strengthen the given fact that India has been a tourist destination from earliest times. These can be inferred from the first paragraph while statement (III) is not evident enough to agree to the fact. Hence only statement (III) among the given options undermines the fact.
2. (4) Refer the second paragraph of the passage, "But this increase fades into insignificance when compared to France's 76 million, Spain's 55, the USA's 49, Italy's 48 and China's 46. China's figure is remarkable because its tourism industry was practically nonexistent until the 1990s." This clearly indicates that statements (II) and (III) rightly express the China's growing dominance in this industry as compared to figures of other nations. However, statement (I) is partly true but it is not evident and appropriate enough to support the answer in the context of the passage. Hence (4) is the correct option.
3. (5) All the three statements are correct in terms of describing the lapses that our existing system of tourism industry possesses. These can be easily verified after going through the third and the fourth paragraphs of the passage. The author has clearly mentioned that there are many areas that require the immediate concern to expect a progressive tourism industry in the country. Hence (5) is the correct option.
4. (1) The mood of the author in paragraph 4 is Critical as the author tries to highlight the loopholes in our system. The author points out the areas where the government needs to take the immediate action. Hence the word "critical" describes the mood of the author in the best way.
5. (4) Read the last paragraph of the passage carefully, the author tries to explain the need of bringing its antique services back into action. The author has also given the example of China and its tourism marketing which India too needs to follow. Among the three statements, both (I) and (III) summarize the paragraph appropriately while statement (II) is out of the context. Hence (4) is the correct option.
6. (5) Here the author has used the phrase 'the jewel in the crown' to describe India's place in the British Empire before the independence but none of the options are mentioning this. Options like (I) is talking about mid-seventies India, therefore, option (5) is the correct choice.
7. (5) All of the above statements are correct in context of the Paragraph 2.
8. (2) Referring to the third paragraph, the government is working towards the implementation of the reforms made by them to change the scenario of dodging corruption in India. Hence only sentence (II) is correct in context of the paragraph 3.
9. (5) All of the above statements are correct in terms of the message conveyed by the author in paragraph 4. Tax Evasion is the central issue in this paragraph and how it is to be eradicated to end corruption, has been mentioned by the author. Hence all the above statements are correct.
10. (1) In the last paragraph of the passage, it is mentioned that the cleaning up of company and bank balance sheets will lead to higher investment and growth. Hence we see that statement (1) is the correct reason in context of the passage.
11. (1) Among the given options, sentences (2) and (3) can be easily eliminated as both these sentences are grammatically incorrect and out of context to the meaning of the actual sentences given in the question. Option (4) is incorrect based on the usage of incorrect sentence structure that completely alters the meaning of the sentence. Hence only option (1) forms the correct sentence which follows the given sentences as given in the question both grammatically and contextually.
12. (2) In the first part of the sentence, "Despite" should be replaced by "While" as it should be used as the conjunction in the sentence which means in spite of the fact that; although. Moreover, the use of "Despite" in the sentence changes the meaning of it. The second part of the sentence is grammatically and contextually wrong. The third part of the sentence refers to the reason, hence the phrase "for it involves" should be replaced by "as it will involve" as the action is yet to be performed. Hence (2) is the correct option.
13. (2) The bold part of the sentence is an old adage that means to motivate us when we go through a period of hardship in our life, which is considered to be short-lived. What all we need is to face those challenges valiantly and stay focused to enjoy the upcoming fruits of success. Thus among the three given sentences, only sentence (III) is able to bring out the complete and correct meaning of the phrase. Hence (2) is the correct option.
14. (3) The word "**parlance**" means a particular way of speaking or using words, especially a way common to those with a particular job or interest. The word fits perfectly into both the sentences as the phrases, "In military parlance" and "In the parlance of the saints", make these sentences meaningful signifying the meaning of the sentence. The other word "**overcome**" means defeat (an opponent). In sentence (1), "to overcome opposition" makes a better sense in the context of the meaning and in the sentence (2) "overcome your fear" fits into the sentence meaningfully. Hence "parlance, overcome" is the correct set of words.
15. (4) Passage (1) explains the term regionalism at the national level and its importance in reference to the idea of nationalism while Passage (3) talks about the growing influence of regionalism over nationalism in the country as it can be inferred from the examples of different regional states provided in the paragraph. Thus both the statements infer the same theme, i.e. "**Regionalism is a subset of nationalism.**" Whereas passage (2) describes the regionalism in a broader sense as it talks about economic development by integrating economy of a developing nation with economies of other nations in the region to reap the benefits of global economy. Thus the paragraph is not in context with the required inference. Hence (4) is the correct option.
16. (3) **Scorched** means burn the surface of (something) with flame or heat.
Rotted means decay or cause to decay by the action of bacteria and fungi; decompose.
Exploit means make full use of and derive benefit from.
17. (1) **Relegating** means assign an inferior rank or position to.
Evicting means expel (someone) from a property, especially with the support of the law.

18. (2) 'deal' is the correct word that fits to the blank making the sentence meaningful. Capacity building programmes are meant to deal with the weather events. Hence all other options are irrelevant.
19. (2) 'occurrence' is the correct word for the blank as here the issue is regarding monsoon floods which occurred in several parts of the country. All other options do not fit into the blank.
20. (4) **Vilifying** means speak or write about in an abusively disparaging manner.
Slandering means make false and damaging statements about.
Abiding means lasting a long time; enduring.
21. (5) 'relief' is the correct word that makes the sentence meaningful as the next word after blank is rehabilitation, so the blank must be filled by the word similar to it.
22. (1) **Alleviating** means make (suffering, deficiency, or a problem) less severe.
Sustaining means strengthen or support physically or mentally.
Succoring means give assistance or aid to.
Abetting means encourage or assist someone to commit.
23. (2) **Solatium** means a thing given to someone as a compensation or consolation.
Emolument means a salary, fee, or profit from employment or office.
Redemption means the action of saving or being saved from sin, error, or evil.
24. (4) **Incite** means encourage or stir up.
Urge means a strong desire or impulse.
25. (1) **Aggravated** means made more serious by attendant circumstances.
Enraged means furious.
Exasperated means irritate intensely; infuriate.
Livid means angry.
26. (3) Among the given options, only (3) forms the correct sentence which is correct and meaningful both in terms of grammar and context. Other options are either grammatically incorrect or contextually meaningless. Moreover, sentences (1), (2) and (4) do not follow the correct grammar structure to frame the sentence. Hence (3) is the correct option.
27. (1) In the first part of the sentence, the correct phrase is "An overwhelming majority of cases in the US are settled" as the word "majority" in the sentence describes a collection of individuals and thus it should be followed by a plural verb "are". The second and the third parts of the sentence are grammatically correct and do not require any correction. The phrasal verb "come down" as used in the second part of the sentence means reach a decision or recommendation in favour of one side or another while the phrasal verb "come over" as used in the option means change to another side or point of view. Hence the phrasal verb "come down" is the correct usage in context of its meaning to the sentence.
28. (1) **Offerings** mean a thing offered, especially as a gift or contribution.
Rebuke means express sharp disapproval or criticism of (someone) because of their behaviour or actions. The second sentence gives us hint that 'rebukes' is the correct choice as the sentence is indicating towards the negative aspects of tithing and offerings and how it might cause criticism from God .
29. (3) The paragraph is all about the importance of sagacity of animals when they work in their own social environment. But once they are ousted from their comfort zone by some external forces, they lose their effectiveness and ultimately the separation leads them to give up on their efforts. Thus among the three given inferences, statements (I) and (II) can be eliminated on the basis of lack of proper and central idea of the paragraph as they just form the parts of the facts given in the paragraph while statement (III) comprehensively expresses the true meaning of the passage and draws the most appropriate inference for the same. Hence (3) is the correct option.
30. (3) 'Onslaught, divisive' is the correct choice for the given question.
Onslaught means a fierce or destructive attack. Here it means communal attacks and we know that communal attacks can cause tensions which can lead to the division of a community and can cause disagreement or hostility between people. **Divisive** means tending to cause disagreement or hostility between people, therefore, it fits the 1st sentence perfectly. In the second sentence, the option (3) fits appropriately, here, the onslaught of divisive tendencies means there is an increase in the hostility which we face today.
31. (3) Read the sentences given in the question carefully, all the four sentences are correctly integrated to form the sentence given as option (3). Other options, (1), (2) and (4) carry grammatical errors and incorrect sentence structure that hardly make a meaningful sentence. Only option (3) forms a sentence which is both grammatically correct and contextually meaningful.
32. (1) There is a small error in only first part of the sentence, the phrase "ISRO should have the capacity" should be replaced by "ISRO has the capacity" as it can be well inferred from the second part of the sentence that it talks about the considerable fact which is true and existent. The verb "should have" changes the meaning of the sentence, thus "has" is the correct grammar usage. Other two parts of the sentence are absolutely correct defining and expressing the meaning of the sentence both grammatically and contextually. Hence (1) is the correct option.
33. (3) The phrase " **mixed bag**" means a diverse assortment of things or people or a motley collection. Among the given statements, both sentences (I) and (II) express the meaning which complies to the meaning of the phrase and at the same time they make sure that the actual meaning of the sentence remains intact. Statement (III) is irrelevant as it alters the meaning of the sentence. Hence (3) is the correct option.
34. (1) If (C) is the first sentence, the correct sequence of other sentences after rearrangement should be BAEDF. The phrase "whose arc of violence goes all the way to killing those they disagree with" in the first sentence gives a clue that the sentence (B) should follow sentence (C) and similarly (A) makes a connection with sentence (B). Thus sentences in the sequence of CBAEDF form a coherent paragraph which is about the suppression of freedom of expression in the present Indian society. Hence (1) is the correct option.
35. (4) If sentence (C), "We even have strident demands for reduction in income-tax rates, as a supply-side stimulus for pushing up GDP growth rates." is the last sentence of

the paragraph, then it can be inferred that sentences in the sequence of DFAEC form a coherent paragraph. The paragraph so formed relates to the implications of consumption tax. However, sentence (B) finds no alternative to being matched with as the sentence talks about greater investment on public goods, primary health, etc. which has no relevance to the given paragraph. Hence (4) is the correct option as the sentence (B) does not belong to the coherent paragraph.

36. (4) If we read Paragraph 1 carefully, we infer that only sentence (4) goes in harmony with the paragraph. Sentence (1) is wrong as the Godavari and Krishna, though being part of ILR project, is not Himalayan rivers rather they are peninsular rivers. Sentence (2) is wrong as it talks about investments by transporting the water to other nations, which is not related to paragraph. Sentence (3) is wrong as it talks about meeting the primary purpose of the farmer, which is not specific. Hence only sentence (4) is correct as it talks about what ILR project consists of.
37. (4) Referring to paragraph 2, we can conclude that only sentences (II) and (III) are correct. "The Interlinking of Rivers (ILR) project has its roots in ancient times", It is correct to say this as it is mentioned in the paragraph that many rulers and engineers from ancient times had sought to divert the water to dried lands. Sentence (III) is correct as it tells that previous government did not pursue these plans due to financial and environmental issues. Sentence (I) is not correct as the idea of using the water of interlinked rivers was not implemented. Hence option (4) is the correct choice.
38. (5) All the above sentences can be inferred from paragraph 3 except sentence (5). Sentence (5) is not mentioned in the paragraph hence it cannot be inferred from paragraph 3.
39. (5) All of the above factors are true as they are responsible for the delay in the implementation of ILR project. Hence option (5) is the correct choice.
40. (2) While going through both the paragraphs, we find that here the demerits of the Interlinking of Rivers (ILR) program are discussed. The harm that living entities will get by constructing this project is discussed in this paragraph. Hence sentence (2) is the correct option that can follow paragraph 4 to form a connection with paragraph 5.
41. (2) Only option (2) among the given options forms a meaningful and grammatically correct sentence. Other options are structurally incorrect and form contextually meaningless statements which make no harmony with the meaning of the sentences given in the question. Hence (2) is the correct choice.
42. (3) In the first part of the sentence, add "that" after "must be" as the determiner "that" is required to make the sentence meaningful. In the second part of the sentence, the phrase "was serving" should be replaced by "has served" as the sentence is basically in the Present Tense. In the third part of the sentence, the preposition "with" should be replaced by "in" as the correct phrase is "in the perspective of" which means to compare something to other things so that it can be accurately and fairly judged and there should be inclusion of definite article "the" before "comity of nations" to make the sentence grammatically correct. Hence (3) is the correct option

where there are errors in all three parts of the sentence with their correct versions provided in the options.

43. (1) Option (1) is the correct choice as only paragraph (1) is correct. Paragraph (3) is talking about the dysfunctional element of our society only and is not giving any hint about how it must be tackled. Paragraph (2) is focusing on the topic of upgrading our system and facilities, but we cannot draw the given conclusion from it as the paragraph is very subtle in approach. Paragraph (1) is correct; refer to "pure public good such as health," and also prioritizing of access to health facilities with reasonable costs is the theme of the passage.
44. (2) 'inmate, confabulations' is the correct choice for the given question.
Inmate means a person living in an institution such as a prison or hospital. The sentences are talking about prison so 'inmate' is one valid option. **Convalescent** means a person who is recovering after an illness or medical treatment and therefore option (4) is incorrect and so is option (1) as both impatient and commiserations are illogical. **Confabulations** means engage in conversation; talk. Sentence (2) gives a hint of gathering because of the use of the word chairs so confabulation is valid and option (2) fits both the sentences perfectly. **Dissonance** means lack of agreement or harmony between people or things therefore it makes option (5) incorrect.
45. (1) The paragraph talks about the focus of economic policies towards the Indian middle class since the mid-80s. It explains how with the proper execution of economic policies and the growing incomes of people, marketing structures have paved its way towards the rural India. Thus among the given three inferences, statements (II) and (III) are out of context of the paragraph as they are highlighting the importance of aspirations and deprivations of the Indian middle class, which is not the central theme of the passage while statement (I) correctly derives the inference as per the idea behind the paragraph. Hence (1) is the correct option.
46. (2) Among the given options, sentences (1) and (3) are contextually different and structurally incorrect. They are not inferring the same meaning as per the demand of the question. Sentence (4) is both grammatically and contextually incorrect. Hence only option (2) forms the correct sentence which follows the given sentences given in the question both grammatically and contextually.
47. (5) The given sentence is grammatically correct. Hence it doesn't require any correction.
48. (2) The phrase "**prolonged teething troubles**" means sustained short-term problems that occur in the early stages of a new project. Thus among the given three statements, only statement (II) explains the meaning of the phrase correctly and without altering the meaning of the sentence. Hence (2) is the correct option.
49. (3) **Regime** means a government, especially an authoritarian one. Since there is a term 'freedom' and we generally get freedom from oppression, therefore, Regime is the correct choice because of the meaning mentioned. It fits perfectly in a sentence (2) also as totalitarian means relating to a system of government that is centralized and dictatorial and requires complete subservience to the state. **Bondage** means the state of being a slave. A dictatorial or an authoritative regime usually prohibits

people from practicing what they desire and they resemble a condition of a slave.

Therefore **Regime** and **bondage** fits the two sentences most perfectly.

50. (1) Option (I) is correct, refer to the last sentence "which has forced it to make extreme choices", therefore, it is the military might of America which has resulted to the extremism of North Korea. Other options are incorrect as they are talking about the failure of America in curbing North Korea's extremism.

51. (4) Let marked price for article II is $100x$
 Cost price of item II for seller A

$$= \frac{100}{100+s} \times (100x - 16x) = \frac{100}{100+s} (84x)$$
 Cost price of item II for seller C

$$= \frac{100}{100+3s-2} (100x - 32x) = \frac{100}{98+3s} (68x)$$

Given

$$\frac{\frac{100}{100+s} 84x}{\frac{100}{98+3s} 68x} = \frac{21}{17}$$

$$\frac{98+3s}{100+s} \times \frac{21}{17} = \frac{21}{17}$$

$$98+3s = 100+s$$

$$2s = 2$$

$$s = 1$$

52. (2) Let marked price for item II be $100x$
 Let marked price for item III be $100y$
 Let for seller D, Selling price of item II = $82x$
 Let for seller D, selling price of item III = $93y$

Given
 $82x - 93y = 4810 \dots (i)$

According to question
 $100x + 100y = 8000$
 $x + y = 80 \dots (ii)$

From eqn. (i) and (ii)
 $y = 10$
 $x = 70$

MP of item II = $100x = 7000$
 MP of item III = $100y = 1000$
 Required difference = $7000 - 1000 = 6000$ Rs.

53. (5) Let marked price of Item II be $100x$
 SP of item II by seller A = $100x - 16x = 84x$
 Let SP of item II by seller B = y
 $\therefore 84x + y = 8800 \dots (i)$
 And S.P. of item II by seller C = $68x$
 Now, $y + 68x = 7200 \dots (ii)$
 From eqn. (i) and (ii)
 $16x = 1600$
 $x = 100$
 S.P. of item II by seller C = $68x = 6800$ Rs.

54. (4) Let Cost price of item I by seller E = x
 Let selling price of item III by same seller = y
 Given, $\frac{x}{y} = \frac{5}{6}$

C.P. of item I by seller E
 $= \frac{750}{25} \times 100 = 3000$ Rs.

S.P. of item III by seller E
 $= \frac{6x}{5} = \frac{6 \times 3000}{5} = 3600$ Rs.

C.P. of item III by seller E
 $= \frac{100}{100+20} \times 3600 = \frac{100}{120} \times 3600 = 3000$ Rs.

Profit on item III by seller E = $3600 - 3000 = 600$ Rs.

Total profit by selling item I and III together
 $= 750 + 600 = 1350$ Rs.

55. (5) Here total profit earned by five sellers

$$= \frac{13500}{5400 \times 5} \times 100 = 50\%$$

Let C.P. of each item = 100

Then MP of item III by each seller = $100 + 100 = 200$

SP of item III by seller A = $\frac{68}{100} \times 200 = 136$

SP of item III by seller B = 154

SP of item III by seller C = 152

SP of item III by seller D = 186

Total profit excluding that of seller E

$$= 36 + 54 + 52 + 86 = 228$$
 Rs.

To make 50% profit, minimum profit of item III by seller E = $(250 - 228) = 22$

Required discount = $\frac{200 - (100 + 22)}{200} \times 100 = 39\%$

Time taken in travelling to Bhopal

Half of the distance by car = $\frac{18}{2} = 9$ hours

One-third of the distance by bus = $\frac{15}{3} = 5$ hours

Rest of the distance by train = $12 \times (1 - \frac{1}{2} - \frac{1}{3}) = \frac{12}{6} = 2$ hours

Average Speed = $\frac{\text{Total Distance}}{\text{Total Time Taken}} = \frac{1080}{(9+5+2)} = \frac{1080}{16} = 67.5$ km/h

57. (1) Let the estimated speed of car be x km/h

Then, Actual speed of car = $1.25x$ km/h

Ratio of speed is inversely proportional to ratio of time taken, when distance is same.

$$\frac{\text{Actual Speed}}{\text{Estimated Speed}} = \frac{\text{Estimated Time Taken}}{\text{Actual Time Taken}}$$

$$\frac{1.25x}{x} = \frac{5}{\text{Actual Time Taken}}$$

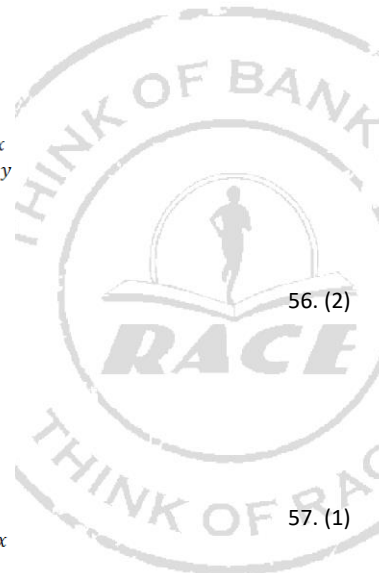
\Rightarrow Actual time taken to reach Delhi = 4 hours

Similarly,

Actual time taken to travel back from Delhi by train = 3 hours 45 minutes

Total time = 4 hours + 4 hours + 3 hours 45 minutes = 11 hours 45 minutes

Hence, person reached his place at = 8 AM + 11 hours 45 minutes = 7:45 PM



58. (3) Fare in terms of Rs/km for journey by bus:
 For Lucknow = $\frac{1296}{720} = 1.8$ Rs/km
 Similarly,
 For Jaipur = 1.75 Rs/km
 For Ahmedabad = 1.95 Rs/km
 For Bhopal = 1.7 Rs/km
 For Delhi = 2.1 Rs/km
 For Chandigarh = 2.05 Rs/km
 Hence, journey to Jaipur is the second most economical by bus.

59. (3) Ratio of speed is inversely proportional to ratio of time taken, when distance is same.

$$\text{Ratio of speeds} = \frac{1}{7} : \frac{1}{8} : \frac{1}{5} = 40 : 35 : 56$$

60. (4) Let, the present ages of Raju and his son be x and y respectively.

2n years ago,

$$x - 2n = 4(y - 2n)$$

$$x = 4y - 6n \dots\dots(i)$$

n years ago,

$$x - n = 3(y - n)$$

$$\Rightarrow x = 3y - 2n \dots\dots(ii)$$

Solving (i) and (ii),

$$y = 4n$$

$$\text{And, } x = 4 \times 4n - 6n = 10n$$

N years later,

$$x + n + y + n = 80$$

$$\Rightarrow 4n + n + 10n + n = 80$$

$$\Rightarrow 16n = 80$$

$$\Rightarrow n = 5$$

$$\text{Difference in their ages} = 10n - 4n = 50 - 20 = 30$$

61. (2) Let the C do in one day = $4y$ work

Let the D do in one day = $5y$ work

2 day work of C + D = $9y$

In 44 day they will complete $9y \times 22 = 198y$

In another $\frac{1}{2}$ days $2y$ work will be done

C will take = $\frac{200y}{4y}$ days = 50 day

D will take = 40 days.

C and D will complete work together in = $\frac{50 \times 40}{90} = \frac{200}{9}$

According to condition

$$\frac{200}{9x} + \frac{200}{9 \times 2x} = 1$$

$$\frac{400 + 200}{18x} = 1$$

$$\Rightarrow x = 33\frac{1}{3}$$

62. (3) A - $33\frac{1}{3}$ days

B - $66\frac{2}{3}$ days

(A+B) - $\frac{200}{9}$ days

Required Time - $\frac{200}{9} \times \frac{9}{4} = 50$ days

63. (4)

For Bag A

$$W = O + 5 \dots(i)$$

Let No. of Red Colored balls = x

$$\therefore \text{Total balls} = O + W + x$$

$$\therefore \frac{x}{O + W + x} = \frac{15}{52} \dots(ii)$$

and Given $W = 131\frac{1}{4}\%$ of O

$$W = \frac{21}{16}O$$

$$\frac{W}{O} = \frac{21}{16}$$

From eqn. (i)

No. of white colored balls = 21

No. of Orange colored balls = 16

From eqn. (ii)

$$\frac{x}{21 + 16 + x} = \frac{15}{52}$$

$$\frac{37 + x}{52} = \frac{15}{52}$$

$$52x = 37 \times 15 + 15x$$

$$37x = 37 \times 15$$

$$x = 15$$

\therefore No. of red colored balls = 15

\therefore for bag A —

Red = 15

White = 21

Orange = 16

Similarly,

For bag B —

Orange = 19

White = 6

Red = 50

For Bag C —

White = 15

Red = 9

Orange = 24

After replacement

No. of white balls in Bag C = $15 + x$

No. of Red balls in Bag C = $9 - 2 = 7$

No. of Orange balls in Bag C = 24

$$\therefore \frac{24}{15 + x + 7 + 24} = \frac{1}{2}$$

$$48 = 46 + x$$

$$x = 2$$

For Bag A

$$W = O + 5 \dots(i)$$

Let No. of Red Colored balls = x

$$\therefore \text{Total balls} = O + W + x$$

$$\therefore \frac{x}{O + W + x} = \frac{15}{52} \dots(ii)$$

and Given $W = 131\frac{1}{4}\%$ of O

$$W = \frac{21}{16}O$$

$$\frac{W}{O} = \frac{21}{16}$$

From eqn. (i)

No. of white colored balls = 21

No. of Orange colored balls = 16

From eqn. (ii)

$$\frac{x}{21 + 16 + x} = \frac{15}{52}$$

$$\frac{37 + x}{52} = \frac{15}{52}$$

$$52x = 37 \times 15 + 15x$$

$$37x = 37 \times 15$$

$$x = 15$$

∴ No. of red colored balls = 15
 ∴ for bag A —
 Red = 15
 White = 21
 Orange = 16

Similarly,
 For bag B —
 Orange = 19
 White = 6
 Red = 50

For Bag C —
 White = 15
 Red = 9

Orange = 24
 Required %

$$= \frac{(16 + 24) - (15 - 9)}{(16 + 24)} \times 100$$

$$= \frac{40 - 6}{40} \times 100 = 85\%$$

65. (1) For Bag A
 $W = O + 5 \dots(i)$
 Let No. of Red Colored balls = x
 ∴ Total balls = $O + W + x$
 $\therefore \frac{x}{O + W + x} = \frac{15}{52} \dots(ii)$
 and Given $-W = 131\frac{1}{4}\%$ of O

$$W = \frac{21}{16}O$$

$$\frac{W}{O} = \frac{21}{16}$$

From eqn. (i)

No. of white colored balls = 21
 No. of Orange colored balls = 16
 From eqn. (ii)

$$\frac{x}{21 + 16 + x} = \frac{15}{52}$$

$$\frac{x}{37 + x} = \frac{15}{52}$$

$$52x = 37 \times 15 + 15x$$

$$37x = 37 \times 15$$

$$x = 15$$

∴ No. of red colored balls = 15

∴ for bag A —
 Red = 15
 White = 21
 Orange = 16

Similarly,
 For bag B —
 Orange = 19
 White = 6
 Red = 50

For Bag C —
 White = 15
 Red = 9

Orange = 24

$$\text{Required Probability} = \frac{16}{52} \times \frac{19}{75} = \frac{76}{975}$$

66. (1) Income of company Y

$$= \frac{520000}{65} \times 165$$

$$= 1320000$$

67. (3) Amount invested by company X in 2014

$$\frac{2}{3} \times 30,00,000 = 20 \text{ lakh}$$
 Amount invested by company Y in 2014

$$= \frac{1}{3} \times 30,00,000 = 10 \text{ lakh}$$
 Profit earned by company X = $\frac{75}{100} \times 20,00,000$

$$= 15 \text{ lakh}$$
 Profit earned by company Y = $\frac{80}{100} \times 10,00,000$

$$= 8 \text{ lakh}$$
 Total profit = 23 lakh

68. (2) Investment of company X in 2013

$$= \frac{48,00,000}{1.60} = 30 \text{ lakh}$$
 Profit earned in 2013 = 48 - 30 = 18 lakh
 Profit earned in 2012 = $\frac{45}{100} \times 30,00,000$

$$= 13.50 \text{ lakh}$$
 Difference = 18 - 13.5 = 4.5 lak

69. (2) Income of X in 2010 = 1.75x
 Income of Y in 2010 = 1.55x
 ∴ ratio = $\frac{170}{155} = 34 : 31$

70. (4) Income of company X in 2012

$$= \frac{145}{100} \times 8,00,000$$

$$= 1,160,000$$
 Amount invested in 2013 by company X

$$= \frac{1160000}{160} \times 100 = 725000$$

71. (5) A) $M + T + W = 38 \times 3 = 114$

B) $T + W + Th = 43 \times 3 = 129$

C) $T = Th = 45$

All the three together are sufficient

72. (1) Let the length of rectangle is ℓ and width is w
 Length becomes = 0.85ℓ
 Width becomes = $1.2b$

A) $b = 16 \text{ cm}$

B) $\ell = 25 \text{ cm}$

C) $b \times \ell = 400 \text{ cm}$

Area = $0.85\ell \times 1.2b = 1.02lb$

Change in Area = $1.02lb - lb = .02lb$

Put value of lb from C

The answer can be calculated using A and B together or C only.

73. (5) We cannot find because there is no information regarding strength of non-officer employees.

Let the marked price is M and cost price is C .

A) $0.85M = 1020$

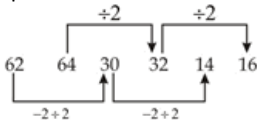
$M = 1200$

B) $M = \frac{25}{17}C$

C) $0.9M = \frac{22.5}{17}C$

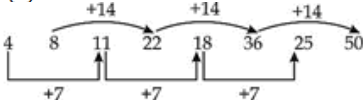
A and either B or C.

75. (2) We can get ratio of investment from either statement B alone or C alone so profit of B can be determined from option b

76. (4) 

77. (1) $5 \times 2 - 1 = 9$
 $9 \times 2 + 3 = 21$
 $21 \times 2 - 5 = 37$
 $37 \times 2 + 7 = 81$

78. (2) $(1)^3 + 1 = 2$
 $(2)^3 + 2 = 10$
 $(3)^3 + 3 = 30$
 $(4)^3 + 4 = 68$
 $(5)^3 + 5 = 130$
 $(6)^3 + 6 = 222$

79. (1) 

80. (1) $4 \times 0.5 + 0.5 = 2.5$
 $2.5 \times 1 + 1 = 3.5$
 $3.5 \times 1.5 + 1.5 = 6.75$
 $6.75 \times 2 + 2 = 15.50$
 $15.50 \times 2.5 + 2.5 = 41.25$
81. (4) Temperature on the fourth day
 $= 40.2 \times 4 + 41.3 \times 4 - 40.6 \times 7$
 $= 160.8 + 165.2 - 284.2 = 41.8^\circ\text{C}$
82. (3) Suppose there are only men, then the no. of legs = $60 \times 2 = 120$
 Now since there are 48 = (168 - 120)
 legs extra, it means there are 24
 $= \left(\frac{48}{2}\right)$ sheep, since a sheep has 2 extra legs than a man has.

83. (4) Let the original fraction be x/y .
 Then, $\frac{115\% \text{ of } x}{92\% \text{ of } y} = \frac{15}{16} \Rightarrow \frac{115x}{92y} = \frac{15}{16}$
 $\Rightarrow \frac{x}{y} = \left(\frac{15}{16} \times \frac{92}{115}\right) = \frac{3}{4}$

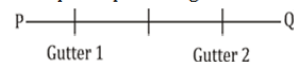
84. (3) Let cost price = x
 Then we have, $x \left(\frac{95}{100}\right) \left(\frac{110}{100}\right) = x \left(\frac{105}{100}\right) - 1$
 or, $x = \frac{100 \times 100}{105 \times 100 - 95 \times 110} = 200$
 \therefore Cost price = Rs 200

85. (3) For 3 years
 Diff. = $\frac{\text{Sum} \times (\text{rate})^2 (300 + \text{rate})}{(100)^3}$
 $= \frac{2000 \times 10 \times 10 \times 310}{100 \times 100 \times 100} = \text{Rs } 62$

86. (3) Required profit percentage
 $= \frac{125 - 120}{120} \times 100$
 $= 4 \frac{1}{6}\%$

87. (3) New cost price of the item
 $= \frac{125}{\left(\frac{3}{22} + 1\right)} \times 100 = 110$
 Reduction in expenditure on raw materials required = Rs. 10
 \therefore Percentage reduction required = $\frac{10}{46} \times 100$
 $= 21 \frac{17}{23}\%$

88. (2) Changed fixed price = $1.25 \times 20 = \text{Rs. } 25$
 \therefore Total cost of the item = Rs. 125
 = Previous selling price
 \therefore Required percentage increase = 20%

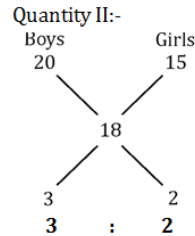
89. (2) 

Distance from P to gutter 1
 $= 60 \times \frac{10}{60} = 10 \text{ km.}$
 This is $\frac{5}{6}$ (Distance between gutter 2 and Q)
 \therefore Distance between Q and Gutter 2 = 12 km.
 Distance between Gutter 1 and 2 = $72 - 12 - 10 = 50 \text{ km.}$
 Total time of travel of the ambulance at twice the speed
 $= \frac{50 \times 2 + 10}{120} = \frac{11}{12} \text{ hours} = 55 \text{ minutes.}$
 Total time of travel of the ambulance = $(55 + 10) = 65 \text{ minutes.}$
 Total time taken = $65 + 2 = 67.$

90. (3) At 10 : 15 a.m.
 In one hour 15 min i.e. upto 10:15 Am
 total distance travelled by both is 40 + 10 km
 They will meet after = $\frac{120 - 50}{80}$
 $= \frac{70}{80} = \frac{7}{8} \text{ hrs} = \frac{7}{8} \times 60 \text{ minutes}$
 $\frac{105}{2} = 52 \text{ minutes } 30 \text{ seconds}$
 They will meet at 10 : 15 a.m. + 52 minutes
 30 sec i.e. 11 : 07 : 30 a.m.

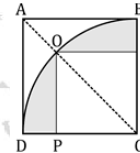
91. (1) Quantity I:-
 $\frac{95}{100} \text{ MP} = \frac{133}{100} \text{ CP}$
 $\Rightarrow \text{MP} = 1.4 \text{ CP}$
 Percentage mark-up = 40%
- Quantity II:-
 Total no. of people under 25 years of age = $\frac{40}{100} \times 60 = 24$
 No. of singers under 25 years of age = $\frac{20}{100} \times 20 = 4$
 No. of dancers under 25 years of age = $24 - 4 = 20$
 Percentage of dancers under 25 years of age = $\frac{(40-20)}{60} \times 100 = 33 \frac{1}{3}\%$

92. (2) Quantity I:-
 Fifth number = $5 \times 61 - 2 \times 69 - 2 \times 69$
 $= 305 - 276$
 $= 29$



No. of boys = $\frac{3}{2} \times 20 = 30$

Quantity II > Quantity I



$\Delta OPC \sim \Delta ADC$

hence, $\frac{OC}{AC} = \frac{PC}{DC}$

or, $\frac{7\sqrt{2}}{14} = \frac{PC}{7\sqrt{2}}$

or, PC = 7 and OP = 7

Area of shaded region

$= \frac{1}{4} \times \frac{22}{7} \times 7\sqrt{2} \times 7\sqrt{2} - 7 \times 7 = 28 \text{ cm}^2$

So, quantity I = quantity 2

94. (2) Since $x > 0$ and $y < 0$,

Quantity 1 will always be negative

And quantity 2 will always be positive

Hence, quantity 1 < quantity 2

95. (5) Let the speed of boat in still water be x kmph and that of stream be r kmph,

Then $\frac{x-r}{r} = \frac{5}{1}$

$\Rightarrow \frac{x}{r} = \frac{6}{1}$

$5 \times 7x - 3 \times 6x = 68$

$\Rightarrow x = 4$

Quantity 1: upstream speed of boat = $5x = 20 \text{ km/hr}$

Quantity 2: speed of bus = $\frac{60}{3} = 20 \text{ km/hr}$

market would yield into benefits for American business. Moreover the statement is concerned with only one specific carrier not the whole Aviation industry.

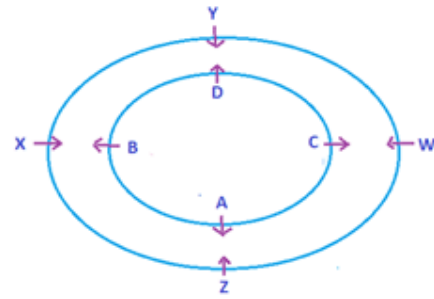
148. (2) In this question we have to choose an option which strengthens the remarks made by US lawmaker that Indians living in America have made a profound contribution in the fields of art and culture.

Statement (i) strengthens the remark by citing out an example which shows that yoga which was originated in India is gaining popularity in America.

Statement (ii) also strengthens the statement as Indians are known for spicy foods.

Statement (iii) is not correct as Hollywood movies gaining popularity in India does not effects the culture of America in any way.

149-150.



149. (3)

150. (4)

