

Bank Clerk Prelims -2021. ICP-2021-090028

HINTS & SOLUTIONS

ANSWER KEY

| | | | | |
|---------|---------|---------|---------|----------|
| 1. (2) | 21. (3) | 41. (5) | 61. (2) | 81. (1) |
| 2. (4) | 22. (4) | 42. (1) | 62. (4) | 82. (2) |
| 3. (3) | 23. (2) | 43. (1) | 63. (3) | 83. (3) |
| 4. (1) | 24. (4) | 44. (2) | 64. (3) | 84. (5) |
| 5. (2) | 25. (2) | 45. (1) | 65. (5) | 85. (5) |
| 6. (2) | 26. (1) | 46. (1) | 66. (3) | 86. (5) |
| 7. (4) | 27. (3) | 47. (4) | 67. (5) | 87. (1) |
| 8. (2) | 28. (2) | 48. (4) | 68. (2) | 88. (3) |
| 9. (5) | 29. (4) | 49. (4) | 69. (3) | 89. (2) |
| 10. (3) | 30. (5) | 50. (5) | 70. (5) | 90. (3) |
| 11. (3) | 31. (3) | 51. (3) | 71. (2) | 91. (2) |
| 12. (1) | 32. (3) | 52. (1) | 72. (4) | 92. (4) |
| 13. (1) | 33. (2) | 53. (5) | 73. (4) | 93. (2) |
| 14. (5) | 34. (4) | 54. (2) | 74. (1) | 94. (4) |
| 15. (4) | 35. (5) | 55. (1) | 75. (3) | 95. (5) |
| 16. (4) | 36. (2) | 56. (2) | 76. (4) | 96. (1) |
| 17. (3) | 37. (1) | 57. (2) | 77. (4) | 97. (5) |
| 18. (5) | 38. (3) | 58. (1) | 78. (1) | 98. (4) |
| 19. (2) | 39. (5) | 59. (4) | 79. (4) | 99. (1) |
| 20. (1) | 40. (2) | 60. (3) | 80. (4) | 100. (4) |

HINTS & SOLUTIONS

1. (2) Disclose means to reveal something
Evinced also means to show clearly or to reveal
Withheld means to hold back or restrain
Swindled means a fraudulent scheme or action.
Out of the given options only option (1) and (b) fit the blank contextually but option (1) is not grammatically correct. Hence, option (2) is the correct answer.
2. (4) Panacea means solution or remedy for a problem
Links means a golf course
Superiority means state of being higher in rank
Consortium means a combination of financial institutions
None of the given options except option (d) makes the sentence contextually and grammatically correct. Hence, option (4) is the correct answer.
3. (3) Durable means able to withstand wear, pressure, or damage.
Swift means happening quickly or smoothly.
Diversified means make more varied.
Hence, option (3) is the only option which makes the sentence both grammatically and contextually correct.

4. (1) Engage means to take part in
Rejecting means to dismiss
Foresee means to predict
Deceive means deliberately making someone believe something that is not true.
So, option (1) is the only option which makes the sentence both grammatically and contextually correct. Hence, Option (1) is the correct answer.
5. (2) From the given options, option (2) is the only option which makes the sentence both contextually and grammatically correct.
6. (2) The answer to the question can be inferred from the first paragraph where it is mentioned that ' *This month, April 2019, was a historic moment in the India-Australia bilateral relationship. Under our joint naval exercise known as AUSINDEX, we saw the largest ever peacetime deployment of Australian defence assets and personnel to India*'. From this, it can be inferred that option (2) is the correct answer.
7. (4) The answer to the question can be inferred from the second paragraph where it is mentioned that ' *The third iteration of our bilateral naval exercise, AUSINDEX.....builds on a fourfold increase in our defence engagement...The Indian Navy's Eastern Naval Command hosted an impressive array of high-end Australian military hardware.....These vessels were joined by frigates, aircraft and around 1,200 sailors, soldiers and airmen and women*'. Hence, all of options (1), (2) and (3) are correct. Hence, option (4) is the correct answer.
8. (2) The answer to the question can be inferred from the third paragraph where it is mentioned that ' *for the first time, our navies undertook anti-submarine warfare exercises.*'. Hence, option (2) is the correct answer.
9. (5) The answer to the question can be inferred from the fourth paragraph where it is mentioned that ' *When Australia's Foreign Minister, Marise Payne, visited India earlier this year, in January, she emphasised our shared outlook as free, open and independent democracies, as champions of international law, as supporters of an open and inclusive Indo-Pacific and as firm believers that 'might is not right*'. Hence, all of options (1), (2) and (3) are correct. Hence, option (5) is the correct answer.
10. (3) The answer to the question can be inferred from the fifth paragraph where it is mentioned that ' *...for addressing shared challenges. We must continue to work together combat transnational crime, terrorism, people smuggling, and illegal fishing*'. Hence, all of (i), (ii), (iii) and (iv) are correct. Hence, option (3) is the correct answer.
11. (3) The answer to the question can be inferred from the seventh paragraph where it is mentioned that ' *In November 2018 we announced the Australian Infrastructure Financing Facility for the Pacific. This AU\$2 billion initiative will boost Australia's support for infrastructure development in Pacific countries.*' Hence, option (3) is the correct answer.

12. (1) Enhance [verb] means 'intensify, increase, or further improve the quality, value, or extent of'; Mar [verb] means 'impair the quality or appearance of; spoil'; Intimate [verb] means 'to suggest something subtly'; Chastise [verb] means 'to reprimand harshly'; Belie [verb] means 'to give a false representation to; misrepresent'; Galvanise [verb] means 'to excite or inspire (someone) to action'; From above, it can be inferred that the word 'mar' has a meaning which is OPPOSITE in meaning to the given word 'enhanced'. Hence, option (1) is the correct answer.

13. (1) Complex [adjective] means 'consisting of many different and connected parts'; Unexacting [adjective] means 'not demanding; uncritical; not difficult to satisfy'; Innocuous [adjective] means 'not harmful or offensive'; Parsimonious [adjective] means 'extremely frugal; miserly'; Restive [adjective] means 'restless'; Commensurate [adjective] means 'to be in proportion or corresponding in degree or amount'; From above, it can be inferred that the word 'unexacting' has a meaning which is OPPOSITE to the meaning of the word 'complex'. Hence, option (1) is the correct answer.

14. (5) Iteration [noun] means 'the repetition of a process or utterance';

Calumny [noun] means 'making of a false statement meant to injure a person's reputation';

Venality [noun] means 'the condition of being susceptible to bribes or corruption';

Aberration [noun] means 'a deviation from what is normal or expected';

Acrimony [noun] means 'bitterness or ill feeling';

From above, it can be inferred that the word 'repetition' has a meaning which is SIMILAR to the word 'iteration'.

Hence, option (5) is the correct answer.

15. (4) Coordinate [verb] means 'bring the different elements of (a complex activity or organization) into a harmonious or efficient relationship';

Mitigate [verb] means 'make less severe or harsh';

Culminate [verb] means 'reach the highest or decisive point';

Eschew [verb] means 'avoid and stay away from deliberately; stay clear of';

Harmonize [verb] means 'make consistent or compatible';

Concede [verb] means 'acknowledge defeat; admit (to a wrongdoing); give order; surrender or relinquish to the physical control of another';

From above, it can be inferred that the word 'harmonized' has a meaning which is SIMILAR to the meaning of the word 'coordinated'.

Hence, option (4) is the correct answer.

16-20. The correct sequence is CEFDBA.

The sentence (C) introduces the theme of the paragraph which is 'one more airline is adding to the list of private airline carcasses dotting the bleak landscape of Indian aviation'. The 'one more airline' which is mentioned in the sentence (C) is the Jet Airways mentioned in the sentence (E). So, sentence (C) should be the first sentence after rearrangement and sentence (E) which mentions that Jet Airways announced a temporary halt of its operations from Wednesday night is the second sentence after rearrangement.

The sentence D seems to be incomplete and is completed by the sentence (B). So, the sentence (B) should follow the

sentence (D). The sentence (B) talks about 'prized departure slots at major airports being allocated to other airlines' while the sentence (A) says that Jet Airways will be able to regain these slots only if it bounces back before the end of the summer schedule in October. So, the sentence (A) should follow the sentence (B). So, we get a subsequence 'DBA'.

The sentence (F) should follow the sentence (E) and should be the third sentence because it provides the reason for why Jet Airways have to temporary halt its operation.

The subsequence 'DBA' would follow the sentence 'F'.

So, we get a sequence as CEFDBA.

16. (4) Hence, option (4) is the correct answer.

17. (3) Hence, option (3) is the correct answer.

18. (5) Hence, option (5) is the correct answer.

19. (2) Hence, option (2) is the correct answer.

20. (1) Hence, option (1) is the correct answer.

21. (3) Here in the sentence the subject of the sentence, '...economic instability' is singular. Therefore, "appears to be" is the correct phrase to replace "appear to be" making the sentence meaningful and grammatically correct. Hence, option (3) is the most suitable answer choice.

22. (4) Here, we will replace 'whom' with 'who'. 'Who' is the relative pronoun which is used as the subject. Hence, option (4) is the correct answer.

23. (2) Here, recently implies that the sentence should be in present perfect tense. Therefore, we will replace "I had developed borderline high blood" with "I have developed borderline high blood". Hence, option (2) is the correct answer.

24. (4) The highlighted portion is erroneous. Instead of 'a', 'the' should come because 'best' is an adjective of superlative degree which would take 'the' as the article.

Hence, alternative (i) is correct and option (4) is the correct answer.

25. (2) The highlighted phrase is erroneous. Instead of 'nobody's else', it should be 'nobody else's' because if 'else' follows 'anybody/somebody', then 's' is used with the 'else'.

Hence, alternative (iii) or option (2) is the correct answer.

26. (1) The words positioned at (A) and (B) are incorrectly placed.

Relatively *peaceful* conduct of the Assembly *election* is a meaningful phrase.

So, interchanging the words present at (A) and (B) would yield a grammatically correct and contextually meaningful sentence. The words at the positions marked as (C) and (D) are correctly placed.

Hence, option (1) is the correct answer.

'After the relatively *peaceful* conduct of the Assembly *elections* in the State late last year, it would have signalled a *precipitous* slide if the electoral process in Chhattisgarh were to be *disrupted* now.'

27. (3) The words positioned at the position (A) and (C) are incorrectly placed.

'Popular disaffection' is a meaningful phrase.

Similarly, 'by worsening socio-economic conditions' is a meaningful phrase.

Upon interchanging the words present at (A) and (C) would yield a grammatically correct and contextually meaningful sentence. The words positioned at the positions (B) and (D) are correctly placed.

Hence, option (3) is the correct answer.

'The popular **disaffection** that forced him out after two decades in power was **triggered** by **worsening** socio-economic conditions **largely** due to lower oil and gas revenues.'

28. (2) The words positioned at the positions (A) and (B) are incorrectly placed.

The clause 'the ignore had wanted' and the phrase 'to government the documents' are not a meaningful phrase. At position (A), noun should come because it is preceded by 'the' while at the position (B) a verb should come to make a 'to-infinitive' phrase.

Similarly, the phrase 'they were found to be dismiss' is not grammatically correct, and 'germane the review petitions' is also not grammatically correct. At position (C), an adjective should come while at the position (D) a verb.

Upon interchanging the positions at the words (A) & (B), and (C) and (D), we would get a grammatically correct and contextually meaningful sentence.

Hence, option (2) is the correct answer.

'Claiming privilege, the **government** had wanted the court to **ignore** the documents, even if they were found to be **germane** to the Rafale case and **dismiss** the review petitions at a preliminary stage.'

29. (4) At positions (A) and (B), verbs should come while at position (C) a participle and at position (D), a noun should come.

The clause 'The Right to Information Act confers on ordinary citizen' is meaningful.

The phrase 'to demand information' is meaningful.

Similarly, the phrase 'even in matters affecting' and the phrase 'observed in his separate judgement' are meaningful.

Upon interchanging the words at positions (A) & (C), and (B) & (D) would yield a grammatically correct and contextually meaningful sentence.

Hence, option (4) is the correct answer.

'The Right to Information Act **confers** on ordinary citizens the 'priceless right' to **demand** information even in matters **affecting** national security and relations with a foreign state, Justice K.M. Joseph observed in his separate **judgment**.'

30. (5) The words at the positions (A), (B), (C) and (D) are correctly positioned and the sentence is already grammatically correct and contextually meaningful.

So, interchange is required.

Hence, option (5) is the correct answer.

31. (3) $\sqrt{1314} - \sqrt{305 + \sqrt{400 - 39}} + ? = 48 - ?$

$$\sqrt{1314} - \sqrt{305 + 19} + ? = 48 - ?$$

$$\sqrt{1314} - 18 + ? = 48 - ?$$

$$36 + ? = 48 - ?$$

$$2 \times ? = 12$$

$$? = 6$$

32. (3) $30.25 \div 1.1 - 0.55 \times 2 = ?^2 + 9.8 \div 7$

$$27.5 - 1.1 - 1.4 = ?^2$$

$$?^2 = 25$$

$$? = 5$$

33. (2) $\sqrt[3]{\frac{25}{4}} + \sqrt[3]{\frac{125}{8}} + 3 \frac{9}{10} = ? - 5 \frac{1}{10}$

$$\frac{5}{2} \times \frac{2}{5} + \frac{39}{10} + \frac{51}{10} = ?$$

$$? = \frac{10 + 39 + 51}{10}$$

$$? = 10$$

34. (4) $120\% \text{ of } 432 \div 72 \times 32 \div 8 = ? + \sqrt{25}$

$$\frac{120}{100} \times \frac{432}{72} \times \frac{32}{8} = \frac{?}{5}$$

$$? = 144$$

35. (5) $\frac{1}{4} \text{ of } \frac{2197}{2401} \times \frac{343}{169} = ? + 28$

$$\frac{1}{4} \times \frac{2197}{2401} \times \frac{343}{169} \times 28 = ?$$

$$? = 13$$

36. (2) I. $2x^2 - 25x + 72 = 0$

$$2x^2 - 16x - 9x + 72 = 0$$

$$2x(x - 8) - 9(x - 8) = 0$$

$$(2x - 9)(x - 8) = 0$$

$$x = 8, \frac{9}{2}$$

II. $4y^2 - 12y - 27 = 0$

$$4y^2 + 6y - 18y - 27 = 0$$

$$2y(2y + 3) - 9(2y + 3) = 0$$

$$(2y - 9)(2y + 3) = 0$$

$$y = \frac{-3}{2}, \frac{9}{2}$$

$$x \geq y$$

37. (1) I. $x^2 - 8x + 15 = 0$

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

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

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

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

II. $y^2 - 3y + 2 = 0$

$$\Rightarrow y^2 - 2y - y + 2 = 0$$

$$\Rightarrow y(y - 2) - 1(y - 2) = 0$$

$$\Rightarrow (y - 1)(y - 2) = 0$$

$$\therefore y = 1 \text{ or } 2$$

$$\therefore x > y$$

38. (3) $2x + 3y = 14$ (I)

$$4x + 2y = 16$$
(II)

On, (I) $\times 2$ - (II), we have

$$4x + 6y - 4x - 2y = 28 - 16$$

$$\Rightarrow 4y = 12 \Rightarrow y = 3$$

From equation I,

$$2x + 3 \times 3 = 14$$

$$\Rightarrow 2x = 14 - 9 = 5 \Rightarrow x = \frac{5}{2}$$

So, $x < y$

I. $2x^2 + 11x - 195 = 0$

$$2x^2 + 26x - 15x - 195 = 0$$

$$2x(x + 13) - 15(x + 13) = 0$$

$$(2x - 15)(x + 13) = 0$$

$$x = -13, \frac{15}{2}$$

II. $3y^2 + 10y - 125 = 0$

$$3y^2 + 25y - 15y - 125 = 0$$

$$y(3y + 25) - 5(3y + 25) = 0$$

$$(y - 5)(3y + 25) = 0$$

$$y = -\frac{25}{3}, 5$$

\therefore Relation cannot be established.

40. (2) $x^2 + 17x + 52 = 0$
 $x^2 + 13x + 4x + 52 = 0$
 $x(x + 13) + 4(x + 13) = 0$
 $(x+4)(x+13) = 0$
 $x = -4, -13$
 II. $y^2 + 27y + 182 = 0$
 $y^2 + 14y + 13y + 182 = 0$
 $y(y + 14) + 13(y + 14) = 0$
 $(y+13)(y+14) = 0$
 $y = -14, -13$
 $x \geq y$

41. (5) average no. of voter in city P,
 Q and U = $\left(\frac{12+18+15}{3}\right)\% = 15\%$
 So, average no. of voters in city P, Q
 and U equal to total no. of voters in city U (15%)

42. (1) required no. of voters
 $= 75000 \times \frac{20}{100} \times \frac{10}{100} + 75000 \times \frac{22}{100} \times \frac{12}{100} = 3480$

43. (1) required difference
 $= 75000 \times \frac{(18+22-12-13)}{100} = 11250$

44. (2) required difference
 $= 75000 \times \frac{15}{100} \times \frac{29}{45} - 75000 \times \frac{13}{100} \times \frac{13}{25} = 2180$

45. (1) In city T
 Total no. of female who did not cast
 vote = $75000 \times \frac{22}{100} \times \frac{40}{100} \times \frac{20}{100} = 1320$
 Total voters who did not cast vote
 $= 75000 \times \frac{22}{100} - 13840 = 2660$
 Total male who did not cast vote
 $= 2660 - 1320 = 1340$

46. (1) Required difference = $1340 - 1320 = 20$
 Profit sharing ratio of A, B & C
 $= (2000 \times 12) : (2500 \times 12) : (1500 \times 4)$
 $= 24000 : 30000 : 6000$
 $= 4 : 5 : 1$

Let total profit be Rs. P
 ATQ,
 $\frac{1}{(4+5+1)} \times P = 350$
 $P = \text{Rs. } 3500$

47. (4) Let speed of train be 'V m/sec'
 And let length of platform be 'l meters'.

ATQ,
 $\frac{l+220}{40} = V \quad \dots (i)$

And,
 $\frac{220}{11} = V + 3$
 $\Rightarrow V = 17 \quad \dots (ii)$

Put value of (ii) in (i),
 $\frac{l+220}{40} = 17$

$l = 680 - 220$
 $l = 460 \text{ m}$

48. (4) Let quantity of milk in initial mixture be x liters
 ATQ,
 $\frac{x+2}{7+11} = \frac{4}{1}$
 $\Rightarrow x + 2 = 72$
 $x = 70$

So, required quantity = $7 + 70 = 77$ liters

49. (4) ATQ,
 $1080 = 1800 \times \frac{75}{100} \times \frac{(100-x)}{100}$
 $1080 = \frac{27}{2} (100-x)$
 $80 = (100-x)$
 $x = 20$

So, required amount = $1080 \times \frac{100}{120} = \text{Rs. } 900$

50. (5) Possible cases = 1 green ball or 2 green balls
 Required probability = $\frac{{}^5C_1 \times {}^{10}C_1 + {}^5C_2}{{}^{15}C_2}$
 $= \frac{5 \times 10}{15 \times 14} + \frac{10}{15 \times 13}$
 $= \frac{50}{105} + \frac{10}{105}$
 $= \frac{60}{105}$
 $= \frac{4}{7}$

51-55. Number of passengers in train P=800
 Number of passengers in train Q
 $= 800 \times 1.4 = 1120$
 Number of passengers of train P
 in general coaches=160
 Number of passengers of train P
 in AC coaches=200
 Number of passengers of train P
 in sleeper coaches=200
 Number of passengers of train P
 in first class coaches=240
 Number of passengers of train Q
 in AC coaches= 280
 Number of passengers of train Q
 in sleeper coaches= $1120 \times 0.45 = 504$
 Number of passengers of train Q
 in first class coaches= $336 \times \frac{3}{7} = 144$
 Number of passengers of train Q
 in general class coaches=192

| Coaches | General | Sleeper | AC | First class | Total |
|---------|---------|---------|-----|-------------|-------|
| Train P | 160 | 200 | 200 | 240 | 800 |
| Train Q | 192 | 504 | 280 | 144 | 1120 |
| Total | 352 | 704 | 480 | 384 | |

51. (3) Required ratio = $\frac{352}{480} = 11:15$

52. (1) Required % = $\frac{280}{504} \times 100 = 55\frac{5}{9}\%$

53. (5) Required % = $\frac{480-360}{480} \times 100$
 $\frac{120}{480} \times 100 = 25\%$

54. (2) Required average = $\frac{704+384}{2} = 544$

55. (1) Required % = $\frac{704-352}{1920} \times 100 = 18\frac{1}{3}\%$

56. (2)
$$\begin{array}{cccccc} 21 & 32 & 45 & 62 & 81 & 104 & 133 \\ \hline & +11 & +13 & +17 & +19 & +23 & +29 \end{array}$$

57. (2)
$$\begin{array}{cccccc} 15 & 16 & 34 & 105 & 424 & 2125 \\ \hline & \times 1+1 & \times 2+2 & \times 3+3 & \times 4+4 & \times 5+5 \end{array}$$

58. (1)
$$\begin{array}{cccccc} 24 & 12 & 8 & 6 & 4.8 & 4 \\ \hline & \times \frac{1}{2} & \times \frac{2}{3} & \times \frac{3}{4} & \times \frac{4}{5} & \times \frac{5}{6} \end{array}$$

59. (4)
$$\begin{array}{cccccc} 414 & 406 & 415 & 351 & 376 & 160 \\ \hline & -8 & +9 & -64 & +25 & -216 \\ & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ & (-2)^3 & (3)^2 & (-4)^3 & (5)^2 & (-6)^3 \end{array}$$

60. (3)
$$\begin{array}{cccccc} 169 & 239 & 329 & 441 & 577 & 739 \\ \hline & +70 & +90 & +112 & +136 & +162 \\ & \hline & +20 & +22 & +24 & +26 \\ & \hline & +2 & +2 & +2 \end{array}$$

61. (2) From I
Let efficiency of a man and a boy are 'M' units/day and 'B' units/day respectively
ATQ

$$24M = 48B$$

$$\frac{M}{B} = \frac{2}{1}$$

From II

Let efficiency of a man and a boy are 'M' units/day and 'B' units/day respectively

$$6M \times 4 = 12B \times 4$$

$$\frac{M}{B} = \frac{2}{1}$$

$$\text{Required part} = \frac{5 \times 2 \times 3}{6 \times 2 \times 4} = \frac{5}{8} \text{ th}$$

So, Statement II alone sufficient to answer the question.

62. (4) Let total number of red balls in bag = x

From I -

$$\frac{11}{x+11+19} = \frac{11}{34}$$

$$x = 4$$

From II -

$$\frac{x}{x+11+19} + \frac{19}{x+11+19} = \frac{23}{34}$$

$$\frac{x+19}{x+30} = \frac{23}{34}$$

$$x = 4$$

So, either statement (I) or statement (II) by itself is sufficient to answer the question

63. (3) let M.R.P = Rs.100y
Given cost price of book = Rs.300

$$\text{selling price of book} = \frac{300(100-x)}{100} = \text{Rs. } 300 - 3x$$

From I & II -

$$100y \times \frac{3}{4} \times \frac{100-x}{100} = \frac{300(100-x)}{100}$$

$$y = 4$$

$$\text{So, } 100y = \text{Rs. } 400$$

$$\text{discount given} = 400 - 300 + 3x = \text{Rs. } 100 + 3x$$

$$\text{loss} = 300 \times \frac{x}{100} = \text{Rs. } 3x$$

ATQ

$$\frac{100+3x}{3x} = \frac{3}{1}$$

$$100 = 6x$$

$$\text{So, } 3x = \text{Rs. } 50$$

So, both statements are necessary to answer the questions.

64. (3) From I
Let no. of girls and boys in class are x and y respectively
Total weight of class = $32x + 40y$ kg (i)
And $(x - y) = 5$
Or $(y - x) = 5$

From II.

Let no. of girls and boys in class are x and y respectively

$$\text{Total weight of class} = 35.2(x+y) \text{ kg (ii)}$$

From equation (i) and (ii)

$$32x + 40y = 35.2x + 35.2y$$

$$\frac{x}{y} = \frac{3}{2} \dots \dots \dots \text{(iii)}$$

From (iii) it is clear that $x > y$

So, we can calculate x and y using statement I and statement II together.

65. (5) from I.
Let length and breadth of rectangle are 'l' and 'b' respectively
ATQ

$$l^2 + b^2 = (l + 1)^2$$

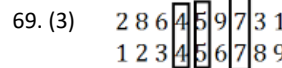
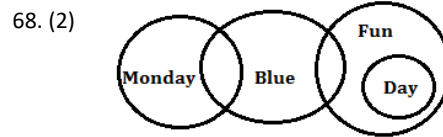
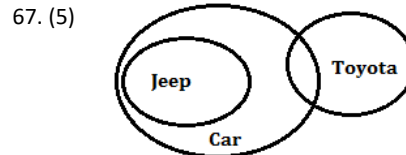
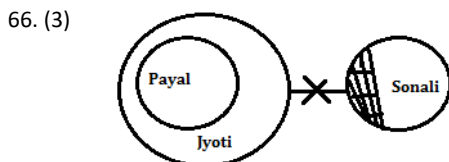
$$l^2 + b^2 = l^2 + 1 + 2l$$

$$b^2 = 2l + 1 \dots \dots \dots \text{(i)}$$

From II.

$$\text{Let } b = 9x$$

With change in value of x, length and breadth will also change
So, we cannot find exact value of area.



71. (2) The element seventh to the right of eleventh from the left end is $(11+7) = 18$ th from the left end i.e. is '4'.

72. (4) There are only two 2's in the series which are followed by a number, which is less than or equal to 5 i.e. '2' and '4'.

73. (4) The addition of fourth and twelfth element from the right = $(1+8) = 9$.

The eleventh digit from the left end is = 1
Hence, addition is = $(9+1) = 10$

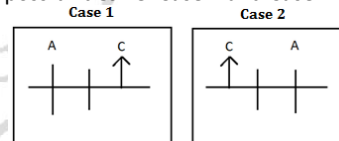
74. (1) After removing 2's and 4's is

3 5 7 1 6 5 7 1 9 8 5 1 5 8 6 3 7 6 9 1 5 6 7

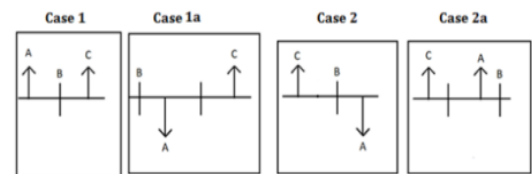
Then, the element fifth to the right of twelfth from the left end is '7'.

75. (3) There are only three 7's which are immediately by an odd number and immediately followed by a number i.e. '5 7 1', '5 7 1' and '3 7 6'.

76-80. From the given statements, C faces in north. There is one person sitting between A and C. Here we get two possibilities i.e. Case 1 and Case 2.

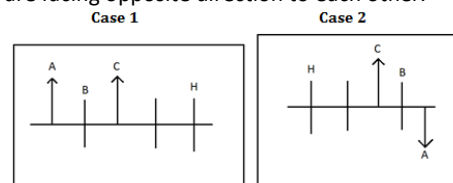


From the given statements, B sits immediate right of A. Now, we get two more possibilities i.e. Case 1a and Case 2a.

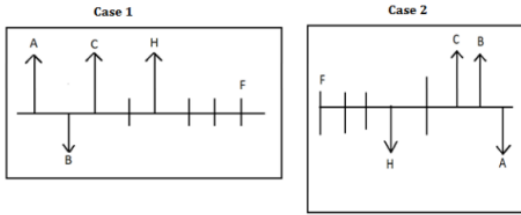


From the given statements, A sits at the end of row. hence case 1a and 2a stands cancelled.

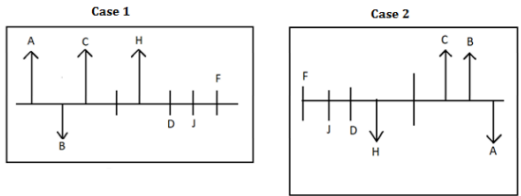
There are two persons between B and H and both of them are facing opposite direction to each other.



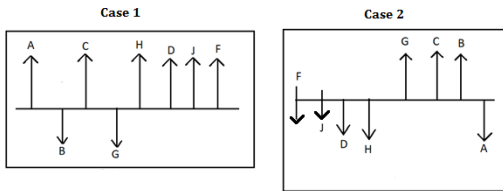
From the given statements, F sits third to the right of H. C does not sit next to D and F.



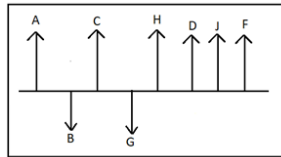
From the given statements, D does not sit immediately next to F. D and J sits next to each other.



From the given statements, G sits second to the left of D and both are facing opposite direction to each other. A faces in the direction same as of J and F.



From the given statements, D faces North, hence case 2 gets cancelled and final solution is:



| Case 2 | |
|--------|--------|
| Year | Person |
| 2006 | P |
| 2007 | R |
| 2008 | S |
| 2009 | Q |
| 2010 | T |

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

Given number is :- 72646139

After arrangement:- 12346679

So there are total 4 digits (i.e. 2, 4, 6 and 9) will remain in the same position.

- 85. (5)
- 86-90.

Odd one is—HQ

From the given statements, U's seminar is just before of S but not in the month which has 31 days. **We get two possibilities now i.e. Case 1 and Case 2.** There are two persons who have a seminar between S and T. V have seminar just before of Q.

| | Case 1 | Case 2 |
|----------|---------|---------|
| Month | Persons | Persons |
| January | | |
| February | U | T |
| March | S | |
| June | V | U |
| August | Q | S |
| October | T | V |
| December | | Q |

From the given statements, there is one person's seminar between R and P, whose seminar is after R. **Now, Case 1 is ruled out now.**

So, the final arrangement will be like this-

| Month | Persons |
|----------|---------|
| January | R |
| February | T |
| March | P |
| June | U |
| August | S |
| October | V |
| December | Q |

- 76. (4)
- 77. (4)
- 78. (1)
- 79. (4)
- 80. (4)

81-83. S was born in the even year. Only one person was born between S and T. T was born immediately after Q.

| | Case 1 | Case 2 | Case 3 |
|------|--------|--------|--------|
| Year | Person | Person | Person |
| 2006 | S | | |
| 2007 | Q | | Q |
| 2008 | T | S | T |
| 2009 | | Q | |
| 2010 | | T | S |

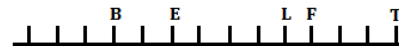
Only one person was born between Q and R. R was born after P. So, case 1 gets eliminated.

| | Case 2 | Case 3 |
|------|--------|--------|
| Year | Person | Person |
| 2006 | P | P |
| 2007 | R | Q |
| 2008 | S | T |
| 2009 | Q | R |
| 2010 | T | S |

R was not born in the year 2009. So, case 3 gets eliminated.

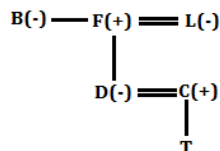
- 86. (5)
- 87. (1)
- 88. (3)
- 89. (2)
- 90. (3)

91-93.



- 91. (2)
- 92. (4)
- 93. (2)

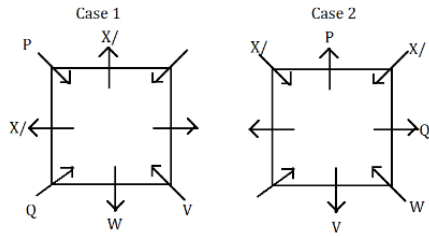
94-95.



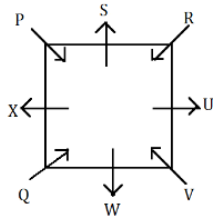
- 94. (4)
- 95. (5)

96-100.

From the given statements, P sits 3rd to the right of W. Here, we get two possibilities i.e. Case 1 and Case 2. Two persons sit between X and V who is an immediate neighbor of W. Q sits immediate right of W.



From the given statements, R is neither an immediate neighbor of X nor of V. U sits immediate left of R. U faces outside. Here, Case 2 is ruled out. So, the final arrangement will be: -



- 96. (1)
- 97. (5)
- 98. (4)
- 99. (1)
- 100. (4)

