

IBPS PO PHASE - I - 184 (SOLUTION)

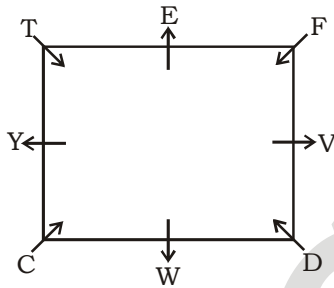
REASONING

(1-5):

Days →	10 th	11 th
Month ↓		
January	Y	X
February	W	Q
March	Z	R
April	P	V

1. (3) 2. (4) 3. (1)
4. (4) 5. (4)

(6-10):



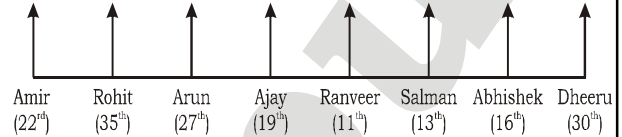
6. (2) 7. (3) 8. (4)
9. (3) 10. (4)

(11-15):

11. (1) $C < E \leq P \leq S$ and $C < E \leq P > Q$
I. $S > C \rightarrow$ True
II. $E < Q \rightarrow$ False
Hence, Only conclusion I is true.
12. (2) $S \geq R > G = N < L \leq Q$
I. $R > L \rightarrow$ False
II. $Q > N \rightarrow$ True
Hence, Only conclusion II is true.
13. (1) $S \geq U > V = T$
I. $S > T \rightarrow$ True
II. $N > U \rightarrow$ False
Hence, Only conclusion I is true.
14. (4) $D = H \geq P \geq Z > N$
I. $D \geq N \rightarrow$ False
II. $Z < D \rightarrow$ False
Hence, Neither conclusion I nor II is true.
15. (4) $F \geq J \leq B = S < N$
I. $S > N \rightarrow$ False
II. $F \leq N \rightarrow$ False

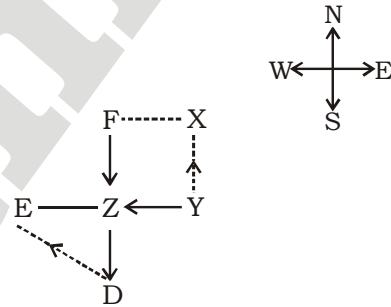
Hence, Neither conclusion I nor II is true.

(16-20):



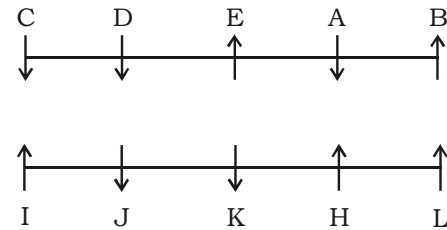
16. (2) 17. (3) 18. (5)
19. (5) 20. (1)

(21-23):



21. (4) $\therefore FZ = XY = 9$ m
 $\therefore FD = FZ + ZD = 9 + 5 = 14$ m
22. (3) 23. (4) 24. (5)

(25-29):



25. (4) 26. (2) 27. (3)
28. (5) 29. (2) 30. (2)
31. (1) 32. (3) 33. (5)
34. (4) 35. (2)

Maths

36. (3) 21 26 33 44 63 98 165
 ┌───┬───┬───┬───┬───┬───┐
 +5 +7 +11 +19 +35 +67
 └───┬───┬───┬───┬───┬───┘
 +2 +4 +8 +16 +32

37. (2) $52 \div 2 + 2 = 26 + 2 = 28$
 $28 \times 2 + 2 = 56 + 2 = 58$
 $58 \div 2 + 2 = 29 + 2 = 31$
 $31 \times 2 + 2 = 62 + 2 = 64$
 $64 \div 2 + 2 = 32 + 2 = 34$

38. (4) $29 + (18 \times 1 - 2) = 29 + 16 = 45$
 $45 + (18 \times 2 - 2) = 45 + 34 = 79$
 $79 + (18 \times 3 - 2) = 79 + 52 = 131$
 $131 + (18 \times 4 - 2) = 131 + 70 = 201$

39. (5)
$$\begin{array}{cccccccc} 13 & 14 & 26 & 54 & 103 & 178 & 284 & \\ \hline & +1 & +12 & +28 & +49 & +75 & +106 & \\ \hline & & +11 & +16 & +21 & +26 & +31 & \end{array}$$

40. (4) $185.01 + 60 \div (29.9 \div 8.66) = ?$

$$\Rightarrow 185 + 60 \times \frac{9}{30} = ?$$

$$\Rightarrow ? = 185 + 18$$

$$\Rightarrow ? = 203$$

41. (1) $299.97 \div 12 \times 13.98 - ? = 282$

$$\Rightarrow \frac{300}{12} \times 14 - ? = 282$$

$$\Rightarrow 25 \times 14 - ? = 282$$

$$\Rightarrow 350 - ? = 282$$

$$\Rightarrow 350 - 282 = ?$$

$$\Rightarrow ? = 68$$

42. (2) 88.025% of $450 = (?)\%$ of 109.998

$$\Rightarrow 88\% \times 450 = ?\% \times 110$$

$$\Rightarrow 88 \times 450 = ? \times 110$$

$$\Rightarrow 8 \times 450 = ? \times 10$$

$$\Rightarrow 8 \times 45 = ?$$

$$\Rightarrow ? = 360$$

43. (5) I. Ratio of ages of Swati and Jyoti 6 years ago was $9 : 7$,

$$\text{i.e. } \frac{s-6}{j-6} = \frac{9}{7}$$

II. Ratio of ages of Jyoti and Urvashi after 10 years will be $6 : 7$,

$$\text{i.e. } \frac{j+10}{u+10} = \frac{6}{7}$$

III. Sum of ages of Jyoti, Rakhi, Urvashi and Swati is 91 , i.e.

$$j + r + u + s = 91$$

We can't solve the question with these three statements.

Hence, option (e) is the answer.

44. (2) Statement I and II:

Total mangoes given to men

$$= \frac{114 \times 10}{10 + 5 + 4} = 60$$

Total mangoes given to women

$$= \frac{114 \times 5}{10 + 5 + 4} = 30$$

Total mangoes given to children

$$= \frac{114 \times 4}{10 + 5 + 4} = 24$$

From II: let mangoes received by 1 child is 'a' and that of 1 man = '2a'

Hence, statement I and II together are not sufficient

Statement I and III :

Total mangoes given to men

$$= \frac{114 \times 10}{10 + 5 + 4} = 60$$

Total mangoes given to women

$$= \frac{114 \times 5}{10 + 5 + 4} = 30$$

Total mangoes given to children

$$= \frac{114 \times 4}{10 + 5 + 4} = 24$$

Let mangoes received by 1 men, 1 women and 1 child is $4x$, $3x$ and $2x$ respectively

Ratio of men, women and child

$$= \frac{60}{4x} : \frac{30}{3x} : \frac{24}{2x} = 15 : 10 : 12$$

$$\text{So, men} = \frac{37 \times 15}{15 + 10 + 12} = 15$$

$$\text{Women} = \frac{37 \times 10}{15 + 10 + 12} = 10$$

$$\text{Children} = \frac{37 \times 12}{15 + 10 + 12} = 12$$

Number of mangoes each man, woman and

$$\text{child together receive} = \frac{60}{15} + \frac{30}{10} + \frac{24}{12} = 9$$

Hence, statement I and III together are sufficient

From I and III

$$\text{Speed of train P} = \frac{Y + 280}{10.4}$$

Length of train = 240 meter

$$\text{Speed} = \frac{240 + 280}{10.4} = 50 \text{ m/sec}$$

Thus, the data given in statement I and III are sufficient to answer the question. So option (b) is the correct answer.

45. (2) From Statement II :

Given cost price = Rs.100

From Statement I :

Say CP = X

Then, Marked price = 140% of X = 1.4X

From statement III :

Selling price = Marked Price (1 - Discount%) = Marked price (1 - 21%)

Now, if we combine Statement I & statement III

$$\text{Selling price} = (1.4X) \times \left(\frac{79}{100}\right)$$

Profit (Gain) = 1.106X

Gain % = 10.6%

∴ Statements I and III together are sufficient to answer the question.

46. (4) Initial Speed of train B = $\frac{500}{40} = \frac{25}{2}$ m/s

$$\text{Speed of car} = 70 \times \frac{5}{18} = \frac{350}{18} \text{ m/s}$$

$$\text{Relative speed} = \frac{350}{18} - \frac{25}{2} = \frac{125}{18} \text{ m/s}$$

Time taken by car =

$$\frac{\text{Distance}}{\text{Relative speed}} = \frac{450}{125} \times 18 = \frac{18 \times 18}{5} \text{ sec}$$

$$\text{Distance covered by a car} = \frac{18 \times 18}{5} \text{ sec}$$

$$= \frac{18 \times 18}{5} \times \frac{350}{18} = 1260 \text{ m}$$

After middle point, the relative speed

$$= 70 - 60 = 5 \times \frac{5}{18} \text{ sec}$$

Time taken to completely pass the train

$$\text{B from its middle point} = \frac{150}{5 \times \frac{5}{18}} = 90 \text{ sec}$$

Distance covered by car in 540 sec

$$= 90 \times \frac{350}{18} = 1750 \text{ m}$$

Total distance cover by car = 1750 + 1260 = 3010 m or 3.01 km

47. (2) The train can cover (200 + 200) m distance in 20 seconds which means the speed of the train is 20 m/s. Relative speed of man and train is 25 m/s. To cover the distance of 200 metre, it will take 8 sec.

48. (3) Speed of train D = $\frac{550}{22} \times \frac{18}{5} = 90 \text{ km/hr}$

Distance cover by train D in 3 hrs

$$= 90 \times 3 = 270 \text{ km}$$

Relative speed of both the trains = 90 + 105 = 195 km/hr

Distance travel by both the trains in 2hr = 195 × 2 = 390 km

Total distance = 390 + 270 = 660 km

49. (4) Speed of Train F = $\frac{(200 + 220)}{18} \times \frac{18}{5}$

$$= 84 \text{ km/hr}$$

Average Speed

$$= \frac{\text{Total Distance}}{\text{Total Time taken}} = \frac{600}{\frac{200}{84} + \frac{200}{56} + \frac{200}{21}}$$

$$= 38 \frac{10}{13} \text{ kmph}$$

50. (2) Speed of train E = $\frac{(200 + 280)}{48} = 20 \text{ m/sec}$

Distance travel by both the train is same. Then,

$$\Rightarrow 15 \times (x - 20) = 5 \times (2x - 10)$$

$$= 3x - 30 = 2x - 10$$

or, x = 20 m/sec

$$\text{Speed of train M in Km/hr} = 20 \times \frac{18}{5}$$

$$= 72 \text{ km/hr}$$

51. (5) Let the present ages of daughter and mother be x and $(60 - x)$ years respectively.

$$\text{Then, } (60 - x) - 6 = 5(x - 6)$$

$$\Rightarrow 54 - x = 5x - 30$$

$$\Rightarrow 6x = 84$$

$$\Rightarrow x = 14$$

$$\Rightarrow \text{Daughter's age after 6 years} = (x + 6) = 20 \text{ years.}$$

52. (4) Speed of train in m/sec = $72 \times \frac{5}{18}$

$$= 20 \text{ m/sec}$$

$$\text{Let length of train} = x$$

$$\text{Let length of bridge} = y$$

$$(x + y) = 35 \times 20 = 700 \text{ (1)}$$

Speed of another train in m/sec

$$= 54 \times \frac{5}{18} = 15 \text{ m/sec}$$

$$\Rightarrow (x + x) = (60 + 52) \times (20 - 15)$$

$$\Rightarrow 2x = 112 \times 5$$

$$\Rightarrow 2x = 560$$

$$\Rightarrow x = 280$$

Put value of x in equation,

$$280 + y = 700$$

$$y = 700 - 280 = 420 \text{ m}$$

53. (1) Let Jyoti's salary is Rs. X per month.

$$\therefore \frac{12x}{100} \times \frac{125}{100} = 4800$$

$$x = \text{Rs. } 32,000$$

54. (2) $40 + \frac{2}{5}P = 20 + \frac{2}{7}Q = 10 + \frac{9}{17}R$

$$Q = 70 + \frac{7}{5}P, R = \frac{510}{9} + \frac{34}{45}P$$

$$P + 70 + \frac{7}{5}P + \frac{510}{9} + \frac{34}{45}P = 600,$$

$$A = \text{Rs. } 150$$

55. (3) Let the original SP be x .

$$\frac{7}{10} \text{ of the SP} = \frac{7x}{10}$$

$$\text{Profit} = 20\%$$

$$\text{CP} = 100 \times \frac{\left(\frac{7x}{10}\right)}{120} = \frac{7x}{12} \quad \dots\dots\dots (1)$$

If he sells the product at 20% less than the original SP

$$\text{New SP} = 80\% \text{ of } x = \frac{4x}{5} \quad \dots\dots\dots (2)$$

From (1) and (2)

$$\text{Profit}\% = \left\{ \left(\frac{4x}{5} - \frac{7x}{12} \right) / \left(\frac{7x}{12} \right) \right\} \times 100$$

$$= 37 \frac{1}{7}$$

56. (2) $[(29.98\% \text{ of } 779.95) + (25.05\% \text{ of } 219.97)] = ?$
 $[(30\% \times 780) + (25\% \times 220)]$

$$\sqrt{\left(\frac{30}{100} \times 780\right) + \left(\frac{25}{100} \times 220\right)}$$

$$\sqrt{(234+55)} = \sqrt{(289)} = 17$$

57. (3) $\sqrt[3]{4095.87} - (\sqrt{360.84} - 12.054) \div 6.97 = ?$

$$\Rightarrow \sqrt[3]{4096} - (\sqrt{361} - 12) \div 7 = ?$$

$$\Rightarrow 16 - (19 - 12) \div 7$$

$$\Rightarrow 16 - 7 \div 7$$

$$\Rightarrow 16 - 1 = 15$$

58. (1) $\sqrt{1520.952} \div 25.921 \times 18.021 = ? - 516.95$

$$\Rightarrow \sqrt{1521} \div 26 \times 18 = x - 517$$

$$\Rightarrow 39 \times \frac{18}{26} = x - 517$$

$$\Rightarrow 27 = x - 517$$

$$\Rightarrow 27 + 517 = x$$

$$\Rightarrow x = 544$$

59. (2) $12.03\% \text{ of } 849.95 + 1499.92\% \text{ of } 25.95 = 3.98 \times (?)$

$$\Rightarrow 12\% \times 850 + 1500\% \times 26 = 4 \times x$$

$$\Rightarrow \frac{12}{100} \times 850 + \frac{1500}{100} \times 26 = 4 \times x$$

$$\Rightarrow 102 + 390 = 4x$$

$$\Rightarrow 492 = 4x$$

$$\Rightarrow x = \frac{492}{4} = 123$$

60. (4) $[(15.96)^2 + 7.5\% \text{ of } 2840] \div 7 = ?$

$$? = (16^2 + \frac{7.5}{100} \times 2840) \div 7$$

$$? = (256 + 213) \div 7$$

$$? = 469 \div 7$$

$$? = 67$$

61. (1) Engineers in Karnataka in 2010

$$= \frac{12}{100} \times 7500 = 900$$

Average number of engineers from Tamilnadu in 2011, 2013 and 2014

$$= \frac{1500 + 900 + 900}{3} = \frac{3300}{3}$$

Average number of engineers from all the states in 2012

$$= \frac{1200 + 1200 + 1800}{3} = \frac{4200}{3}$$

$$\text{Percentage} = \left\{ \left(\frac{4200}{3} \right) - \left(\frac{3300}{3} \right) \right\} / \left(\frac{4200}{3} \right) = 21.4\%$$

62. (2) Engineers in Karnataka in 2010

$$= \frac{12}{100} \times 7500 = 900$$

Similarly, engineers in different states in different years :

Total number of engineers in 3 states in 2015 = 900 + 1200 + 1500 = 3600

In 2015, 67% are male engineers. So, Female engineers

$$= \frac{100 - 67}{100} \times 3600 = 1188$$

63. (2) Number of engineers in 2010 = 900 + 1800 + 1200 = 3900

Number of engineers in 2011 = 1500 + 1500 + 900 = 3900

Number of engineers in 2012 = 1200 + 1200 + 1800 = 4200

Number of engineers in 2013 = 1500 + 900 + 900 = 3300

Number of engineers in 2014 = 1500 + 900 + 1200 = 3600

Number of engineers in 2015 = 900 + 1200 + 1500 = 3600

Therefore, number of engineers in year 2010 and 2011 are equal and number of engineers in year 2014 and 2015 are equal.

64. (1) Percentage increase in the number of engineers in Maharashtra from 2011 to 2015 = $(1500 - 900) / 900 \times 100 = 66.67\%$

Percentage decrease in the number of engineers in Karnataka from 2013 to 2015 = $(1500 - 900) / 1500 \times 100 = 40\%$

$$\text{Difference} = 66.67 - 40 = 26.67\%$$

65. (3) Difference of engineers from Karnataka and Tamilnadu in 2013 = 1500 - 900 = 600

Difference of engineers from Maharashtra and Tamilnadu in 2010 = 1800 - 1200 = 600

$$\text{Ratio} = 600 : 600 = 1 : 1$$

(66-70):

66. (2) I. $2x^2 + 9x + 9 = 0$

$$2x^2 + 6x + 3x + 9 = 0$$

$$2x(x + 3) + 3(x + 3) = 0$$

$$x = \frac{-3}{2}, -3$$

II. $15y^2 + 16y + 4 = 0$

$$15y^2 + 10y + 6y + 4 = 0$$

$$5y(3y + 2) + 2(3y + 2) = 0$$

$$y = \frac{-2}{5}, \frac{-2}{3}$$

$$x < y$$

67. (4) I. $2x^3 = 16$

$$x^3 = 8$$

$$x = 2$$

II. $2y^2 - 9y + 10 = 0$

$$2y^2 - 5y - 4y + 10 = 0$$

$$y(2y - 5) - 2(2y - 5) = 0$$

$$y = 2, \frac{5}{2}$$

$$x \leq y$$

68. (5) I. $6x^2 - 11x + 4 = 0$

$$6x^2 - 8x - 3x + 4 = 0$$

$$2x(3x - 4) - 1(3x - 4) = 0$$

$$x = \frac{1}{2}, \frac{4}{3}$$

II. $3y^2 - 5y + 2 = 0$

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

$$3y(y - 1) - 2(y - 1) = 0$$

$$y = \frac{2}{3}, 1$$

69. (3) I. $3x^2 + 11x + 10 = 0$

$$3x^2 + 6x + 5x + 10 = 0$$

$$3x(x + 2) + 5(x + 2) = 0$$

$$x = -2, \frac{-5}{3}$$

II. $y^2 + 11y + 14 = 0$

$$2y^2 + 7y + 4y + 14 = 0$$

$$y(2y + 7) + 2(2y + 7) = 0$$

$$y = -2, -\frac{7}{2}$$

$$x \geq y$$

70. (5) I. $12x^2 + 11x + 2 = 0$

$$12x^2 + 8x + 3x + 2 = 0$$

$$4x(3x + 2) + 1(3x + 2) = 0$$

$$x = \frac{-2}{3}, \frac{-1}{4}$$

II. $12y^2 + 7y + 1 = 0$

$$12y^2 + 4y + 3y + 1 = 0$$

$$4y(3y + 1) + 1(3y + 1) = 0$$

$$y = \frac{-1}{3}, \frac{-1}{4}$$

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Campus

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IBPS PO PHASE - I - 184 (ANSWER KEY)

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

Note:- If you face any problem regarding result or marks scored, please contact 9313111777

Note:- Whatapp with Mock Test No. and Question No. at 7053606571 for any of te doubts. Join the group and you may also share your suggestions and experience of sunday Mock Test.

Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003