

IBPS RRB PO Pre Memory Based Paper Mock 01 05-Aug-2023 - Solutions

Directions (1-5):

Year	Age	Persons
1994	27	R
1996	25	P
1998	23	T
1999	22	Q
2001	20	V
2002	19	S
2004	17	W
2005	16	U

S1. Ans.(d)

S2. Ans.(a)

S3. Ans.(e)

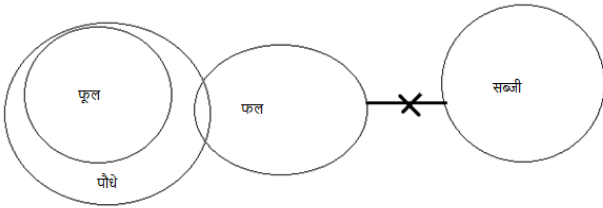
S4. Ans.(c)

S5. Ans.(c)

Directions (6-8):

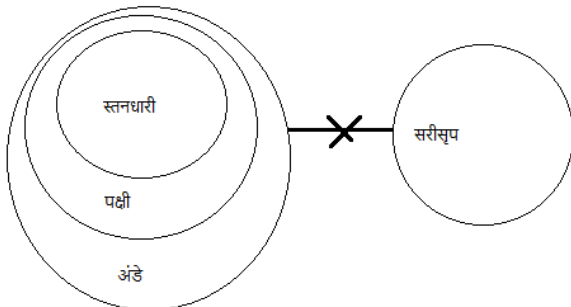
S6. Ans.(b)

Sol.



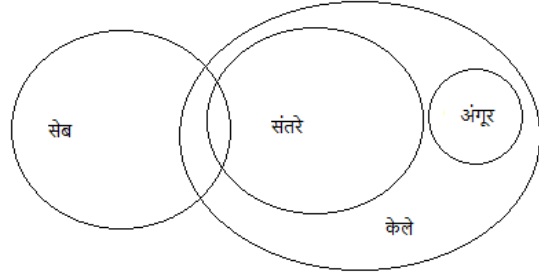
S7. Ans.(a)

Sol.



S8. Ans.(e)

Sol.



Directions (9-13):

Boxes
F
C
A
G
E
I
B
H
D

S9. Ans.(b)

S10. Ans.(a)

S11. Ans.(e)

S12. Ans.(e)

S13. Ans.(b)

TEST SERIES

BILINGUAL

VIDEO SOLUTIONS

IBPS PO 2023

PRELIMS + MAINS

200+ Total Tests | eBooks

Directions (14-16):

S14. Ans.(b)

S15. Ans.(e)

S16. Ans.(c)

Directions (17-20):

Q A D F R C V U B N

S17. Ans.(b)

S18. Ans.(e)

S19. Ans.(c)

S20. Ans.(c)

S21. Ans.(c)

479486553

268264442

6+2+4 = 12

Directions (22-26):

Word	Code
New	Xf
Word	Bf
Shuffle	Go
Towards	Hu
Corner	Hh
Table	Dm
Chapter	Qt
Around	Ch

S22. Ans.(b)

S23. Ans.(c)

S24. Ans.(d)

S25. Ans.(d)

S26. Ans.(a)

Directions (27-31):

Floor	Persons	Country
7	M	Canada
6	O	Germany
5	Q	Italy
4	N	Spain
3	S	China
2	P	India
1	R	Brazil

S27. Ans.(e)

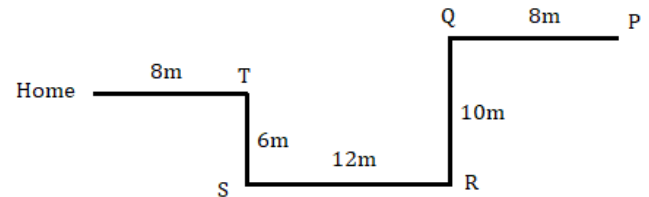
S28. Ans.(e)

S29. Ans.(d)

S30. Ans.(d)

S31. Ans.(b)

Directions (32-34):



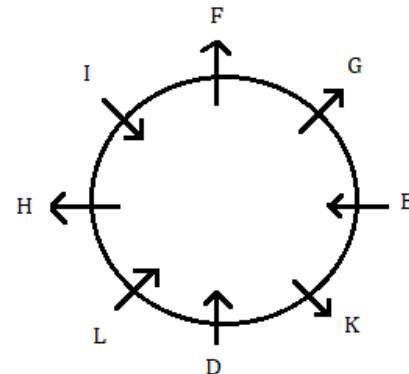
S32. Ans.(d)

S33. Ans.(b)

S34. Ans.(c)

S35. Ans.(d)

Directions (36-40):



S36. Ans.(b)

S37. Ans.(c)

S38. Ans.(a)

S39. Ans.(e)

S40. Ans.(c)

S41. Ans.(d)

Sol. Ratio of profit share of A, B and C = $1300 \times$

$12:500 \times 12:1800 \times 6$

$= 26 : 10 : 18$

$= 13 : 5 : 9$

ATQ, $27P \times \frac{9}{27} = 360$

$9P = 360$

$P = 40$

Required difference = $27P \times \frac{13-5}{27} \times 40 = 320$ Rs.

S42. Ans.(c)

Sol. Let present age of A and B be 'a' years and 'b' years respectively

$$a + b = 15 \times 2 + 10 = 40 \text{ years}$$

Let the age of A and C be $6x$ & $5x$ respectively

$$\text{So, we can say } a = 6x$$

$$\text{So, age of B} = 5x - 4$$

$$\text{ATQ, } 6x + 5x - 4 = 40$$

$$11x = 44$$

$$x = 4$$

$$\text{Present age of B} = 5 \times 4 - 4 = 16 \text{ years}$$

$$\text{Present age of C} = 5 \times 4 = 20 \text{ years}$$

$$\text{Required sum} = 16 + 20 = 36 \text{ years}$$

S43. Ans.(d)

$$\text{Sol. ATQ, } \frac{8X+151}{10} = X + \frac{3}{2}$$

$$8X + 151 = 10X + 15$$

$$2X = 136$$

$$X = 68$$

$$\text{Weight of lightest people} = (68 - 5) = 63 \text{ kg}$$

$$\text{Required difference} = (151-63) - 63 = 25 \text{ kg}$$

S44. Ans.(e)

Sol. Let highest marks of the exam = $100x$

$$100x \times \frac{40}{100} + 40 = 100x \times \frac{70}{100} - 20$$

$$30x = 60$$

$$x = 2$$

$$\text{Total marks get by C} = 200 \times \frac{65}{100} = 130$$

$$\text{Required difference} = 130 - 200 \times \frac{40}{100} = 50$$

S45. Ans.(c)

Sol. Equivalent rate of interest at rate of 10% p.a.

$$\text{for two years} = (10+10+\frac{10 \times 10}{10}) = 21\%$$

$$(P + 500) \times \frac{24}{100} - \frac{21P}{100} = 150$$

$$\frac{3P}{100} = 30$$

$$P = 1000$$

$$\text{Required amount} = 1000 + 500 = 1500 \text{ Rs.}$$

S46. Ans.(d)

Sol. Wrong number = 3

Pattern of series -

$$6400 \div 16 = 400$$

$$400 \div 8 = 50$$

$$50 \div 4 = 12.5$$

$$12.5 \div 2 = 6.25$$

$$6.25 \div 1 = \mathbf{6.25}$$

$$6.25 \div 0.5 = 12.5$$

S47. Ans.(c)

Sol. Wrong number = 48

Pattern of series -

$$34 - 2 = 32$$

$$32 + 4 = 36$$

$$36 - 6 = 30$$

$$30 + 8 = 38$$

$$38 - 10 = 28$$

$$28 + 12 = 40$$

S48. Ans.(e)

Sol. Wrong number = 108

Pattern of series -

$$43 + 2^2 = 47$$

$$47 + 3^2 = 56$$

$$56 + 4^2 = 72$$

$$72 + 5^2 = \mathbf{97}$$

$$97 + 6^2 = 133$$

$$133 + 7^2 = 182$$

S49. Ans.(d)

Sol. Wrong number = 256

Pattern of series -

$$12 + 16 = 28$$

$$28 + 32 = 60$$

$$60 + 48 = 108$$

$$108 + 64 = 172$$

$$172 + 80 = \mathbf{252}$$

$$252 + 96 = 348$$

S50. Ans.(a)

Wrong number = 7

Pattern of series -

$$3 \times 2 + 2 = \mathbf{8}$$

$$8 \times 3 + 3 = 27$$

$$27 \times 4 + 4 = 112$$

$$112 \times 5 + 5 = 565$$

$$565 \times 6 + 6 = 3396$$

$$3396 \times 7 + 7 = 23779$$

Sol. (51-55):

Hotels	Total number of rooms	Vacant rooms	Occupied rooms
A	220	110	220-110 = 110
B	250	150	250-150 = 100
C	280	180	280-180 = 100
D	260	130	260-130 = 130
E	310	120	310-120 = 190

S51. Ans.(a)

Sol. Required average = $\frac{100+100+190}{3} = \frac{390}{3} = 130$

S52. Ans.(d)

Sol. Total number of rooms in hotel F = $\frac{125}{100} \times$

280 = 350

Total number of rooms occupied in hotel F = $\frac{7}{5} \times$

120 = 168

Total number of rooms vacant in hotel F = 350 - 168 = 182

S53. Ans.(e)

Sol. Total revenue generated from hotel A = 55000

$X \times 110 = 55000$

$X = 500$

Total revenue generated from hotel C = $\frac{10}{11} \times$

55000 = Rs. 50000

ATQ,

$Y \times 100 = 50000$

$Y = 500$

Required value = 500 + 500 = 1000

S54. Ans.(b)

Sol. Required percentage = $\frac{130}{250} \times 100 = 52\%$

S55. Ans.(c)

Sol. Number of rooms occupied in hotel A and D together = 110 + 130 = 240

Number of rooms occupied in hotel A and D together = 190 + 100 = 290

Required difference = 290 - 240 = 50

S56. Ans.(c)

Sol. $99 + 20 - 101 \approx \frac{108}{?}$

$18 \approx \frac{108}{?}$

$? \approx 6$

S57. Ans.(c)

Sol. $\sqrt{?} \approx 784 - 1180 + 400$

$\sqrt{?} \approx 4$

$? \approx 16$

S58. Ans (a)

Sol. $19^2 - 20\% \text{ of } 190 - ? \approx 90$

$361 - 38 - ? \approx 90$

$233 = ?$

S59. Ans.(d)

Sol. $2^5 \div 2^2 \times 2^7 \approx 2^?$

$2^{(5-2)} \times 2^7 \approx 2^?$

$2^{10} \approx 2^?$

$? \approx 10$

S60. Ans.(b)

Sol. $\frac{24}{100} \times 450 + ?^2 = 256 - 4$

$?^2 = 252 - 108$

$? = 12$

S61. Ans.(d)

Sol. ATQ, $\frac{x+5}{8+6} = \frac{3}{1}$

$x = 37$

Required answer = (37+5+8+6) - 10 = 46 liters



S62. Ans.(a)**Sol.** Let height of triangle = $2x$ So, based of triangle = x

$$5x^2 = 640$$

$$x^2 = 128$$

Curved surface area of cylinder = $2\pi rh$

$$= 2\pi \cdot 2x \times x$$

$$= 4 \times 128\pi$$

$$= 512\pi \text{ cm}^2$$

S63. Ans.(a)**Sol.** Let the speed of P and Q be $5x$ kmph and $8x$ kmph respectively.

ATQ,

$$D = 3 \times 5x = 15x \dots\dots(I)$$

$$\text{Also, } D + 40 = 2.5 \times 8x$$

$$D = 20x - 40 \dots\dots(II)$$

Solving (I) and (II),

$$15x = 20x - 40$$

$$x = 8$$

$$\text{So, } D = 15x = 120 \text{ km}$$

Original speed of P = $5x = 40$ kmph

$$\text{Required time} = \frac{120+180}{40 \times \frac{125}{100}} = \frac{300}{50} = 6 \text{ hour}$$

S64. Ans.(d)**Sol.** Let the five consecutive multiples of four be $4a, 4b, 4c, 4d, 4e;$ where $a=x, b=x+1, c=x+2, d=x+3$ and $e=x+4$ $\dots\dots(I)$

ATQ,

$$4a + 4b + 4c + 4d + 4e = 200$$

$$a + b + c + d + e = 50$$

$$\text{Or, } x + x + 1 + x + 2 + x + 3 + x + 4 = 50$$

 $\dots\dots\text{from (I)}$

$$5x = 50 - 10$$

$$x = 8$$

$$\text{So, smallest multiple} = 4a = 4x = 4 \times 8 = 32$$

S65. Ans.(c)**Sol.** Let the speed of stream be x kmph.So, Speed of boat A in still water = $4 \times x = 4x$ kmph

ATQ,

$$\frac{24}{4x-x} = 8$$

$$x = 1$$

So, speed of stream = $x = 1$ kmphSpeed of boat B in still water = $5x + 2 = 5 \times 1 + 2 = 7$ kmphRequired time = $\frac{24}{7-1} = 4$ hours = $4 \times 60 = 240$ minutes**S66. Ans.(b)****Sol.** Total people (Vegetarian + non-Vegetarian) visited in F

$$= 150 \times \frac{7}{5} + 100 \times \frac{150}{100}$$

$$= 210 + 150$$

$$= 360$$

$$\text{Required difference} = 360 - 120 = 240$$

S67. Ans.(c)**Sol.** Total non-vegetarian people visited in C and D = $(140 + 120) = 260$

$$\text{Required percentage} = \frac{260-180}{180} \times 100 = 44.44\% \approx 44\%$$

S68. Ans.(b)**Sol.** Required sum = $70 \times 7 + 120 \times 7$

$$= 490 + 840$$

$$= 1330$$

S69. Ans.(d)**Sol.** Total people visited E = $130 + 100 = 230$ Total people visited A = $120 + 150 = 270$ Required ratio = $230:270$

$$= 23:27$$

S70. Ans.(d)**Sol.** Average number of non-vegetarian people visited in B and D

$$= \frac{80+120}{2} = 100$$

$$\text{Required percentage} = \frac{120-100}{100} \times 100 = 20\%$$

S71. Ans.(b)**Sol.** Let present age of A, B, C and D be a, b, c & d respectively

$$a + b + c = 14 \times 3 = 42 \dots (i)$$

$$b + c + d = 15 \times 3 + 4 \times 3 = 57 \dots\dots(ii)$$

$$a + d = 27 \dots\dots(iii)$$

From (i) and (ii)

$$d - a = 15 \text{ -----(iv)}$$

From (iii) and (iv)

$$d = 21$$

$$\text{Required age} = 21 + 5 = 26 \text{ years}$$

S72. Ans.(a)

Sol. Total cost price of quantity of mangoes seller had = $230 \times 10 = 2300$ Rs.

So, total selling price of quantity of mangoes seller had, if he had to gain 15% profit = $2300 \times \frac{115}{100} = 2645$ Rs.

Total quantity of mangoes available for selling =

$$230 \times \frac{80}{100} = 184 \text{ kg}$$

Total selling price of half of 184 kg of mangoes which seller sold at Rs. 20 per kg = $184 \times \frac{1}{2} \times 20 = 1840$ Rs.

So, seller had to sell the remaining mangoes =

$$\frac{2645 - 1840}{92} \times \frac{1}{100} = 8.75 \text{ Rs./kg}$$

S73. Ans.(d)

Sol. Let the efficiency of a woman be $4x$ and total number of men required be m .

So, the efficiency a man = $4x \times \frac{3}{4} = 3x$

$$30 \times 4x \times 9 \times 1000 \times 10 = 3x \times m \times 1500 \times 5 \times 10$$

$$m = 48$$

S74. Ans.(a)

Sol. Speed of train X = 20 m/sec

Let length of train X be x m

From II

length of train Y = $0.5x$ m

From I

Speed of train Y = $20 \times 1.5 = 30$ m/sec

From I & II

$$\frac{x + 0.5x}{6} = 30 + 20$$

$$x = 200 \text{ m}$$

S75. Ans.(b)

Sol. Let radius of circle = r cm

So, side of square = $r + 3.5$ cm

From I -

$$2 \times \frac{22}{7} \times r - 2r = 45$$

$$r = 10.5 \text{ cm}$$

$$\text{side of square} = 10.5 + 3.5 = 14 \text{ cm}$$

$$\text{Area of square} = 196 \text{ cm}^2$$

Statement I alone is sufficient to give answer.

From II -

Let breadth of rectangle = $2x$

So, radius of circle will be = $3x$

ATQ -

$$\frac{2 \times \frac{22}{7} \times 3x}{2(2x+15)} = \frac{3}{2}$$

$$x = 3.5 \text{ cm}$$

Radius of circle = 10.5 cm

$$\text{side of square} = 10.5 + 3.5 = 14 \text{ cm}$$

$$\text{Area of square} = 196 \text{ cm}^2$$

So, either statement I or Statement II alone is sufficient.

S76. Ans.(a)

Sol. I. $2x^2 - 14x - 3x + 21 = 0$

$$2x(x - 7) - 3(x - 7) = 0$$

$$x = 7, \frac{3}{2}$$

II. $3y^2 - x - 4 = 0$

$$3y^2 - 4y + 3y - 4 = 0$$

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

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

$$x > y$$

S77. Ans.(e)

Sol. I. $2x^2 - x - 45 = 0$

$$2x^2 - 10x + 9x - 45 = 0$$

$$2x(x-5) + 9(x-5) = 0$$

$$x = 5, -4.5$$

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

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

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

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

So, there is no relation between x and y .

S78. Ans.(a)

Sol. I. $2x^2 - 23x + 66 = 0$

$$2x^2 - 12x - 11x + 66 = 0$$

$$2x(x-6) - 11(x-6) = 0$$

$$x = \frac{11}{2}, 6$$

$$\begin{aligned} \text{II. } 3y^2 - 16y + 21 &= 0 \\ 3y^2 - 9y - 7y + 21 &= 0 \\ 3y(y-3) - 7(y-3) &= 0 \\ y &= 3, \frac{7}{3} \\ \text{So, } x &> y \end{aligned}$$

S79. Ans.(c)

$$\begin{aligned} \text{Sol. I. } 2x^2 + 12x + 4x + 24 &= 0 \\ 2x(x+6) + 4(x+6) &= 0 \\ (2x+4)(x+6) &= 0 \\ x &= -2, -6 \end{aligned}$$

$$\begin{aligned} \text{II. } 6y^2 + 9y + 4y + 6 &= 0 \\ 3y(2y+3) + 2(2y+3) &= 0 \\ (2y+3)(3y+2) &= 0 \\ y &= -\frac{3}{2}, -\frac{2}{3} \\ x &< y \end{aligned}$$

S80. Ans.(b)

$$\begin{aligned} \text{Sol. I. } 12x^2 - 12x &= 13x - 12 \\ 12x^2 - 25x + 12 &= 0 \\ 12x^2 - 16x - 9x + 12 &= 0 \\ (4x-3)(3x-4) &= 0 \\ x &= \frac{3}{4}, \frac{4}{3} \end{aligned}$$

$$\begin{aligned} \text{II. } 12y^2 - 13y + 3 &= 0 \\ \Rightarrow 12y^2 - 4y - 9y + 3 &= 0 \\ \Rightarrow 12y^2 - 4y - 9y + 3 &= 0 \\ \Rightarrow 4y(3y-1) - 3(3y-1) &= 0 \\ \Rightarrow (4y-3)(3y-1) &= 0 \\ \Rightarrow y &= \frac{3}{4}, \frac{1}{3} \\ \text{So, } x &\geq y \end{aligned}$$

