IBPS RRB PO Prelims Memory Based Paper 2020 - Solution PDF

S1. Ans.(c)
Sol.
2 1 4 5 6 7 3
0 2 2 6 4 8 4

S2. Ans.(b)
Sol.

Floors	Flat-P	Flat-Q
4	D	H
3	G	F
2	C	A
1	B	E

S3. Ans.(b)
Sol.

Floors	Flat-P	Flat-Q
4	D	H
3	G	F
2	C	A
1	B	E

S4. Ans.(e)
Sol.

Floors	Flat-P	Flat-Q
4	D	H
3	G	F
2	C	A
1	B	E

S5. Ans.(d)
Sol.

Floors	Flat-P	Flat-Q
4	D	H
3	G	F
2	C	A
1	B	E

S6. Ans.(d)
Sol.

Floors	Flat-P	Flat-Q
4	D	H
3	G	F
2	C	A
1	B	E

S7. Ans.(c)
Sol.

Words	Codes
Plan	mn
To	kr/pc
Go	pc/kr
Exam	oj
Easy	ly
Today	si
Your	zm
Make	rk

S8. Ans.(d)
Sol.

Words	Codes
Plan	mn
To	kr/pc
Go	pc/kr
Exam	oj
Easy	ly
Today	si
Your	zm
Make	rk

S9. Ans.(d)
Sol.

Words	Codes
Plan	mn
To	kr/pc
Go	pc/kr
Exam	oj
Easy	ly
Today	si
Your	zm
Make	rk

S10. Ans.(a)
Sol.

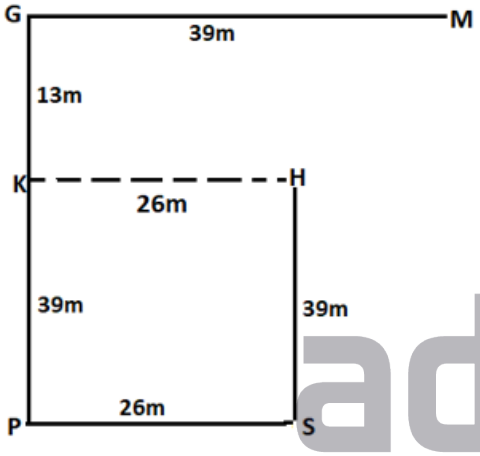
Words	Codes
Plan	mn
To	kr/pc
Go	pc/kr
Exam	oj
Easy	ly
Today	si
Your	zm
Make	rk

S11. Ans.(c)
Sol.

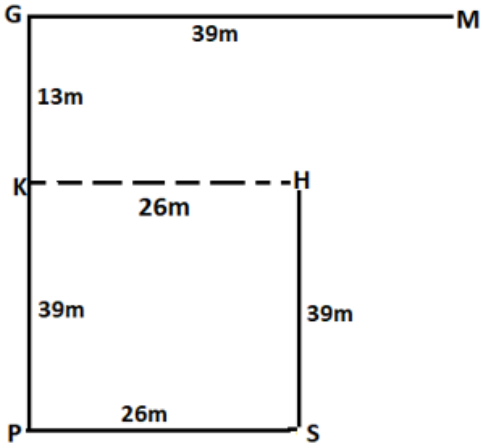
Words	Codes
Plan	mn
To	kr/pc
Go	pc/kr
Exam	oj
Easy	ly
Today	si
Your	zm
Make	rk

S12. Ans.(c)
Sol.

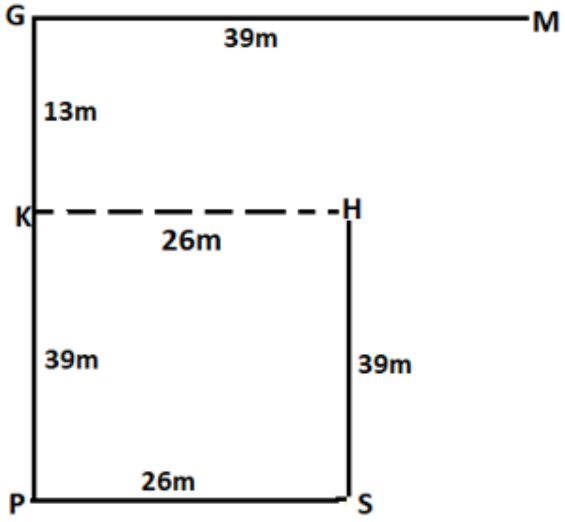
S13. Ans.(e)
Sol.



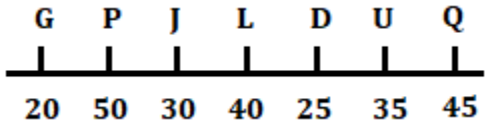
S14. Ans.(b)
Sol.



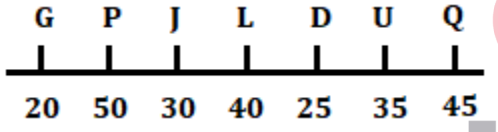
S15. Ans.(a)
Sol.



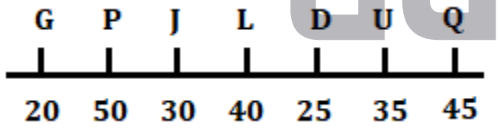
S16. Ans.(a)
Sol.



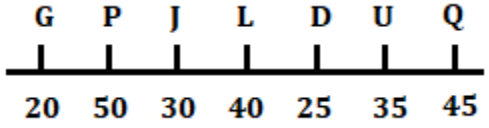
S17. Ans.(d)
Sol.



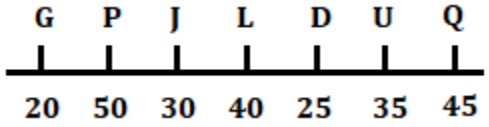
S18. Ans.(e)
Sol.



S19. Ans.(a)
Sol.



S20. Ans.(e)
Sol.



S21. Ans.(d)
Sol.

Days	Persons
Monday	Q
Tuesday	U
Wednesday	T
Thursday	S
Friday	P
Saturday	R

S22. Ans.(d)
Sol.

Boxes
T
Q
Y
O
M
X
K
L
P
J

S23. Ans.(e)
Sol.

Boxes
T
Q
Y
O
M
X
K
L
P
J

S24. Ans.(c)
Sol.

Boxes
T
Q
Y
O
M
X
K
L
P
J

S25. Ans.(b)
Sol.

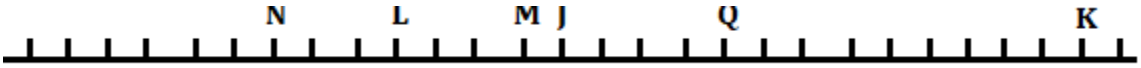
Boxes
T
Q
Y
O
M
X
K
L
P
J

S26. Ans.(d)
Sol.

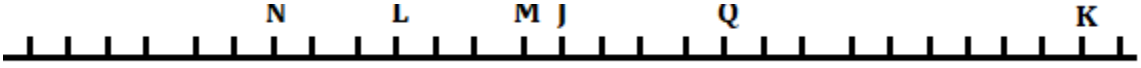
Boxes
T
Q
Y
O
M
X
K
L
P
J

S27. Ans.(c)
Sol.

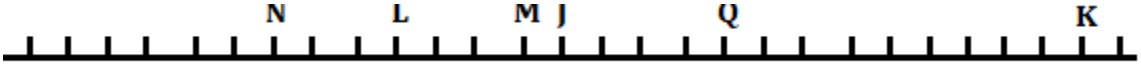
S28. Ans.(b)
Sol.



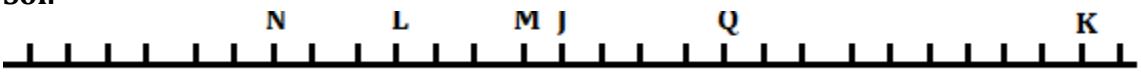
S29. Ans.(e)
Sol.



S30. Ans.(b)
Sol.



S31. Ans.(c)
Sol.



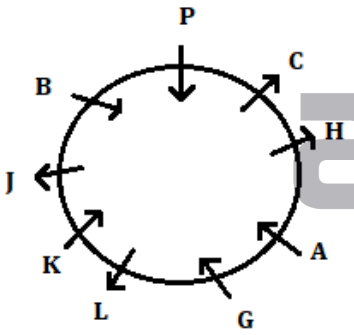
S32. Ans.(a)
Sol.
I. S > O (True)
II. P > G(False)

S33. Ans.(e)
Sol.
I. T < Q (True)
II. T < K (True)

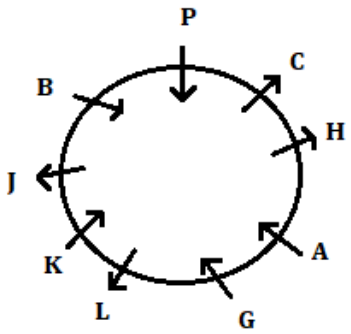
S34. Ans.(b)
Sol.
I. V ≥ H(False)
II. H ≤ M (True)

S35. Ans.(d)
Sol.
I. B < N (False)
II. L > H (False)

S36. Ans.(d)
Sol.

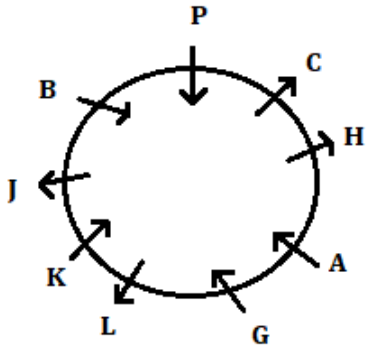


S37. Ans.(e)
Sol.



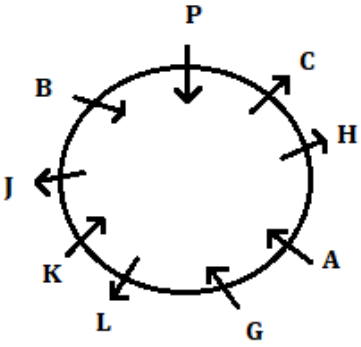
S38. Ans.(d)

Sol.



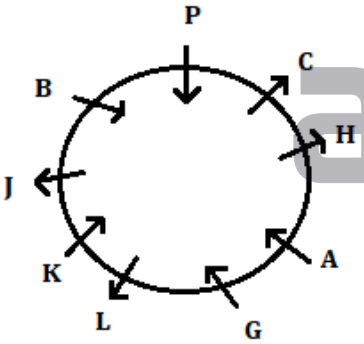
S39. Ans.(e)

Sol.



S40. Ans.(b)

Sol.



S41. Ans.(e)

Sol.

Required average $= \frac{1}{3} \times \left(5{,}500 \times \frac{20+16+12}{100}\right) = 880$

S42. Ans.(c)

Sol.

Required angle $= \frac{16}{100} \times 360^{\circ} = 57.6^{\circ}$

S43. Ans.(e)
Sol.

Required number of students
$= 5{,}500 \times \frac{10+18}{100} = 1{,}540$

S44. Ans.(b)
Sol.

Students appeared in shift III & IV together of the examination
$= 5{,}500 \times \frac{(24+12)}{100} = 1{,}980$
Students appeared in shift I of the examination $= 5{,}500 \times \frac{20}{100} = 1{,}100$
Required percentage $= \frac{1980-1100}{1100} \times 100 = 80\%$

Or, required percentage $= \frac{(24+12)-20}{20} \times 100 = 80\%$

S45. Ans.(a)
Sol.

Students appeared in shift IV & VI together of the examination $= 5{,}500 \times \frac{12+18}{100} = 1{,}650$
Students appeared in shift II & III together of the examination $= 5{,}500 \times \frac{16+24}{100} = 2{,}200$
Required ratio $= \frac{1650}{2200} = 3:4$

Or required ratio $= \frac{(12+18)}{(16+24)} = 3:4$

S46. Ans.(e)
Sol.

Students appeared in shift I & VI together of the examination $= 5{,}500 \times \frac{20+18}{100} = 2{,}090$
Students appeared in shift III & V together of the examination $= 5{,}500 \times \frac{10+24}{100}$
$= 1{,}870$
Required difference $= 2090 - 1870 = 220$

S47. Ans.(a)
Sol.

ATQ,
Let quantity of milk and water in the vessel initially be 7x liters & x liters respectively.
ATQ,
$\left(7x - 24 \times \frac{7x}{8x}\right) = 56$
$x = 11$

S48. Ans.(d)

Sol.

Let time taken by B alone to complete the work be x days.
So, time taken by A alone to complete the same work = $(x - 7.5)$ days
ATQ,
$\frac{1}{x-7.5} + \frac{1}{x} = \frac{1}{9}$
$x = 3, \frac{45}{2}$
x cannot be 3 as time taken by A alone cannot be negative.
Required time = $\frac{1 \times \frac{2}{9}}{\frac{1}{\frac{45}{2}}}$
= 5 days

S49. Ans.(b)

Sol.

Let ages of A & B, 4 years later be 8x years & 9x years respectively.
ATQ,
$(8x - 4) + (9x - 4) = 47 \times 2$
$17x = 102$
$x = 6$ years
Required difference = $9x - 8x$ = 6 years

S50. Ans.(a)

Sol.

Let total students in the school be 100x.
So, number of students went on the picnic = 39x
And, number of boys went on the picnic = $75x \times \frac{32}{100}$ = 24x
So, number of girls went on the picnic = $39x - 24x$ = 15x
Required percentage = $\frac{15x}{25x} \times 100$ = 60%

S51. Ans.(e)

Sol.

Total number of students in section A = $\left(240 \times \frac{100}{60}\right)$ = 400
Total number of students in section B = $\left(210 \times \frac{100}{70}\right)$ = 300
Required difference = 400 − 300 = 100

S52. Ans.(a)

Sol.

I. $x^2 + 9x + 20 = 0$
$x^2 + 5x + 4x + 20 = 0$
$x(x + 5) + 4(x + 5) = 0$
$(x + 5)(x + 4) = 0$
$x = -4, -5$
II. $8y^2 - 15y + 7 = 0$
$8y^2 - 8y - 7y + 7 = 0$
$8y(y - 1) - 7(y - 1) = 0$
$(y - 1)(8y - 7) = 0$
$y = 1, \frac{7}{8}$
So, $x < y$.

S53. Ans.(b)

Sol.

I. $x^2 - 11x + 30 = 0$
$x^2 - 6x - 5x + 30 = 0$
$x(x - 6) - 5(x - 6) = 0$
$(x - 6)(x - 5) = 0$
$x = 5, 6$
II. $y^2 + 12y + 36 = 0$
$y^2 + 6y + 6y + 36 = 0$
$y(y + 6) + 6(y + 6) = 0$
$(y + 6)(y + 6) = 0$
$y = -6$
So, $x > y$.

S54. Ans.(c)

Sol.

I. $x^2 + 13x + 40 = 0$
$x^2 + 8x + 5x + 40 = 0$
$x(x + 8) + 5(x + 8) = 0$
$(x + 8)(x + 5) = 0$
$x = -8, -5$
II. $y^2 + 7y + 10 = 0$
$y^2 + 5y + 2y + 10 = 0$
$y(y + 5) + 2(y + 5) = 0$
$(y + 5)(y + 2) = 0$
$y = -2, -5$
So, $x \leq y$.

S55. Ans.(b)
Sol.
I. $x^2 - 20x + 91 = 0$
$x^2 - 13x - 7x + 91 = 0$
$x(x - 13) - 7(x - 13) = 0$
$(x - 13)(x - 7) = 0$
$x = 7, 13$
II. $y^2 + 16y + 63 = 0$
$y^2 + 9y + 7y + 63 = 0$
$y(y + 9) + 7(y + 9) = 0$
$(y + 9)(y + 7) = 0$
$y = -7, -9$
So, $x > y$.

S56. Ans.(e)
Sol.
I. $x^2 - x - 12 = 0$
$x^2 - 4x + 3x - 12 = 0$
$x(x - 4) + 3(x - 4) = 0$
$(x - 4)(x + 3) = 0$
$x = 4, -3$
II. $y^2 + 5y + 6 = 0$
$y^2 + 3y + 2y + 6 = 0$
$y(y + 3) + 2(y + 3) = 0$
$(y + 3)(y + 2) = 0$
$y = -2, -3$
So, *no relation.*

S57. Ans.(b)
Sol.
Required number of students
$= (700 \times 3) - (720 + 900) = 480$

S58. Ans.(c)
Sol.
Number of girls in school – A & B together in 2000 = 450 + 180 = 630
Total number of students in school – B & C together in 2000 = 600 + 400 = 1000
Required percentage $= \frac{1000-630}{1000} \times 100 = 37\%$

S59. Ans.(a)
Sol.
Required number of boys
$= (720 - 360) + (360 - 180) + (450 - 270)$
$= 360 + 180 + 180$
$= 720$

S60. Ans.(b)

Sol.

Average number of students in school – A, B & C in 1999 $= \frac{1}{3} \times (720 + 360 + 450)$

$= 510$

Required percentage $= \frac{510}{600} \times 100 = 85\%$

S61. Ans.(d)

Sol.

Required ratio $= \frac{600-180}{400-120}$

$= \frac{420}{280}$

$= 3:2$

S62. Ans.(b)

Sol.

Total number of girls in school – A, B & C together in 1999 $= (360 + 180 + 270)$

$= 810$

Total number of girls in school – A, B & C together in 2000 $= (450 + 180 + 120)$

$= 750$

Required difference $= 810 - 750 = 60$

S63. Ans.(a)

Sol.

Quantity I:

Required profit $= 450 \times \frac{20}{120}$

$=$ Rs.75

Quantity II:

Required cost price $= 84 \times \frac{100}{120}$

$=$ Rs.70

So, Quantity I > Quantity II.

S64. Ans.(b)

Sol.

Quantity I:

Required female $= 1152 \times \frac{100}{30} \times \frac{40}{60} \times \frac{100-25}{100}$

$= 1920$

Quantity II:

1940

So, Quantity I < Quantity II.

S65. Ans.(b)
Sol.
Quantity I:
ATQ,
$\frac{P \times 12 \times 2}{100} = 1200$
$P = 5{,}000$ Rs.
Quantity II:
Rs.6,000
So, Quantity I < Quantity II.

S66. Ans.(e)
Sol.
Let breadth of the field be x m.
So, length of the field = $(x + 4)$ m
Area of a rectangular field = $\frac{288}{3} = 96$ m^2
ATQ, $x(x + 4) = 96$
$x^2 + 4x - 96 = 0$
$x^2 + 12x - 8x - 96 = 0$
$x(x + 12) - 8(x + 12) = 0$
$(x + 12)(x - 8) = 0$
$x = 8, -12$
Quantity I:
Length of rectangular field = 12m
Quantity II: 12 m
So, Quantity I = Quantity II.

S67. Ans.(b)
Sol.
Quantity I:
Let present age of Prashant be x years.
So, present age of Shivam = $(x + 8)$ years
$x + 8 + x = 32$
$x = 12$ years
Quantity II:
15 years
So, Quantity I < Quantity II.

S68. Ans.(a)
Sol.
Profit sharing ratio of A, B & C
= (4000 × 12) : (4000 +1000) × 12 : (3000 × 4)
= 48000 : 60000 : 12000
= 4 : 5 : 1
Let total profit be Rs. P
ATQ,
$\frac{1}{(4 + 5 + 1)} \times P = 700$
P = Rs. 7000

S69. Ans.(d)
Sol.
Let speed of train be 'V' m/sec'
And let length of platform be 'l meters.
ATQ,
$\frac{l+440}{80} = V$ ... (i)
And,
$\frac{440}{22} = V + 3$
$\Rightarrow V = 17$ ... (ii)
Put value of (ii) in (i),
$\frac{l+440}{80} = 17$
$l = 1360 - 440$
$l = 920$ m

S70. Ans.(d)
Sol.
ATQ,
$2160 = 3600 \times \frac{75}{100} \times \frac{(100-x)}{100}$
$2160 = 2700 - 27x$
$27x = 540$
$x = 20$
So, required amount $= 2160 \times \frac{100}{120} =$ Rs. 1800

S71. Ans.(e)
Sol.
Possible cases = 1 green ball or 2 green balls
Required probability $= \frac{{}^5C_1 \times {}^{10}C_1}{{}^{15}C_2} + \frac{{}^5C_2}{{}^{15}C_2}$
$= \frac{5 \times 10}{{}^{15}C_2} + \frac{10}{{}^{15}C_2}$
$= \frac{50}{105} + \frac{10}{105}$
$= \frac{60}{105}$
$= \frac{4}{7}$

S72. Ans.(a)
Sol.
Let speed of stream be x km/hr.
So, speed of boat in still water = 6x km/hr.
ATQ,
$\frac{210}{7} = (6x - x)$
$\Rightarrow 5x = 30$
$x = 6$ km/hr
So, required downstream speed of boat
$= (6x + x) = 7x = 42$ km/hr

S73. Ans.(b)
Sol.
Let width of rectangle A be '4x meters'
So, length of rectangle A = $4x \times \frac{125}{100} = 5x$ meters
ATQ,
$4x \times 5x = 1280$
$20x^2 = 1280$
$x^2 = 64$
$x = 8$
Hence, side of square = $2 \times 8 = 16$ cm
Required perimeter = $4 \times 16 = 64$ cm

S74. Ans.(d)
Sol.
Required average = $53 - \frac{[(49+57)-(45+52)]}{45}$
$= 53 - \frac{9}{45}$
$= 52.80$ kg

S75. Ans.(e)
Sol.
Missing number = 5760
Pattern of series –
$1.5 \times 2 = 3$
$3 \times 4 = 12$
$12 \times 6 = 72$
$72 \times 8 = 576$
$576 \times 10 = 5760$

S76. Ans.(b)
Sol.
Missing number = 56
Pattern of series –
$80 - 14 = 66$
$66 + 19 = 85$
$85 - 24 = 61$
$61 + 29 = 90$
$90 - 34 = 56$

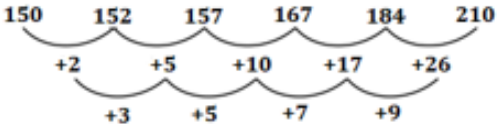
S77. Ans.(b)
Sol.
Missing number = 83
Pattern of series –
$163 - 80 = 83$
$83 - 40 = 43$
$43 - 20 = 23$
$23 - 10 = 13$
$13 - 5 = 8$

S78. Ans.(d)

Sol.

Missing number = 210

Pattern of series –



S79. Ans.(a)

Sol.

Missing number = 95

Pattern of series –

$3.5 \times 1 - 1 = 2.5$

$2.5 \times 2 - 2 = 3$

$3 \times 3 - 3 = 6$

$6 \times 4 - 4 = 20$

$20 \times 5 - 5 = 95$

S80. Ans.(b)

Sol.

Missing number = 2100

Pattern of series –

?= $6300 \div 3 = \mathbf{2100}$

$2100 \div 4 = 525$

$525 \div 5 = 105$

$105 \div 6 = 17.5$

$17.5 \div 7 = 2.5$