IBPS RRB OFFICER PHASE - I - 153 (SOLUTION)

REASONING

(1-5) :

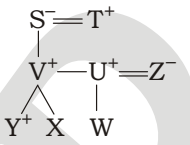
Person	City	Company
Ramesh	Pune	GBL
Umesh	Kolkata	Wipro
Deepak	Raipur	Oracle/Fastrack
Teenu	Delhi	Videocon
Wadra	Nagpur	Wal-Mart
Vaibhav	Jaipur	Yahoo
Suresh	Mumbai	Fastrack/Oracle

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

(6-10) :

6. (4) R > S ≥ T < U, V > T > X
I. V > S [S ≥ T < V] → False
II. U > V [V > T < U] → False
Neither conclusion I nor II is true.
7. (4) I. A ≥ E [A = B ≤ C ≥ E] → False
II. E > D [E ≤ C > D] → False
Neither conclusion I nor II is true.
8. (4) I. K ≥ M [M ≥ J = K] → False
M ≥ H [H < I > J ≤ M] → False
Neither conclusion I nor II is true.
9. (5) I. S > T [T ≤ R < S] → True
II. P ≥ T[P = Q ≥ R ≥ T] → True
Both conclusion I and II are true.
10. (4) I. R > P [R ≥ O < P] → False
II. R ≥ N [R ≥ O ≤ N] → False
Neither conclusion I nor II is true.

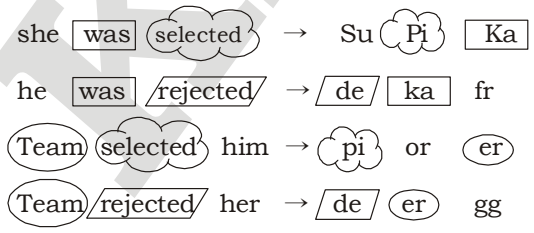
(11-13) :



11. (5) 12. (2) 13. (4)

(14-17) :

14. (5) from statement I and II



She → Su, her → gg
he → fr, him → or
So, both statement I and II together are neccessary to answer the question.

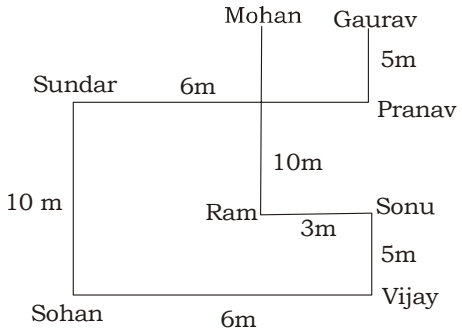
15. (2) Statement II along is sufficient to answer the question.
16. (5) From statement I and II
F > C, A > C
F > B, E > B (E is not highest)
D < B, E > A
Decending order of mark
F > E > A > C > B > D
So both statement I and II together are neccesary to anser the question.
17. (3) **From statement I :**
Bhanu is 12th from the right end, so Amit is 10th from the right end so (15 – 10 + 1) → 6 th from left end.
From II : Chunky is 8th from right end means before changing position, Amit was at 8th position from right, So (20 – 8 +1) = 13 th from the left end.
either statement I alone or II alone give the answer the question.

(18-22) :

Floor	Name	City
7	*Vivek*	*Mumbai*
6	*Ashu*	*Delhi*
5	*Lucky*	*Pune*
4	*Abhi*	*Kolkata*
3	*Javed*	*Jaipur*
2	*Rajan*	*Goa*
1	*Kamal*	*Indore*

18. (4) 19. (1) 20. (3)
21. (5) 22. (2)

(23-24) :



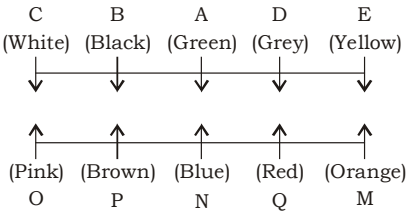
23. (2) 24. (4)

(25–29) :

Friends	Day	Show
P	Tuesday	Monologue
Q	Thursday	Play
R	Saturday	Debate
S	Monday	Speech
T	Sunday	Music
U	Wednesday	Dance
V	Friday	Mimicry

25. (2) 26. (4) 27. (1)
28. (5) 29. (4)

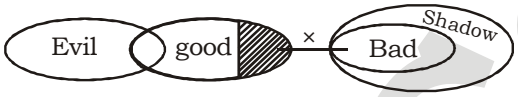
(30-34) :



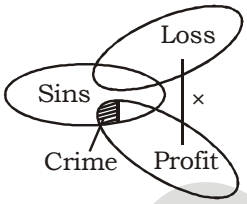
30. (2) 31. (1) 32. (5)
33. (3) 34. (2)

(35-39):

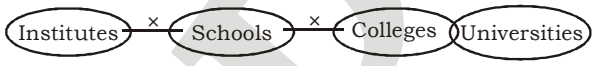
35. (4)



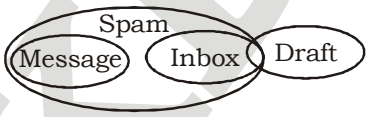
36. (3)



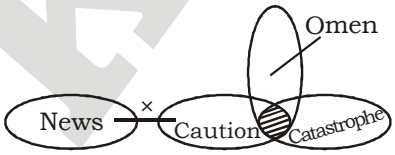
37. (3)



38. (4)



39. (4)



40. (2) As nothing is mentioned about separate earnings of husbands and wives.

Maths

(41-45) :

41. (2) $? = \frac{623898 \times 99}{60000} = 1029.43 \approx 1030$

42. (3) $? = \frac{4}{3} \times \frac{3}{7} \div \frac{6}{7} \div \frac{5}{9}$

$= \frac{4}{5} \times \frac{3}{7} \times \frac{7}{6} \times \frac{9}{5} = \frac{18}{25}$

43. (1) $(399.98)^2 = ?$

$\Rightarrow ? \approx (400)^2 = 160000$

44. (3) $\sqrt{624.9995} + (4.9989)^2 = ? \div \frac{1}{4.9900865}$

$\Rightarrow \sqrt{625} + (5)^2 \approx ? \div \frac{1}{5}$

$\Rightarrow 25 + 25 = ? \times 5$

$\Rightarrow ? = \frac{50}{5} = 10$

45. (3) $989.001 + 1.00982 \times 76.792 = ?$

$\Rightarrow ? \approx 989 + 1 \times 77$

$= 989 + 77 = 1066 \approx 1065$

46. (1) Amount remaining after

1 year $= 4000\left(1+\frac{7.5}{100}\right) - 1500 = ₹\ 2800$

2 years $= 2800\left(1+\frac{7.5}{100}\right) - 1500 = ₹\ 1510$

3 years $= 1510\left(1+\frac{7.5}{100}\right) - 1500 = ₹\ 123.25$

47. (3) Let the number of students appeared in school X = 100

$\therefore$ Number of students qualified in school X = 70

$\therefore$ According to question,

Number of students appeared in School Y = 120

Number of students qualified in School Y

= 70 + 50% of 70 = 70 + 35 = 105

$\therefore$ Required percentage

$= \frac{105 \times 100}{120} = 87.5\%$

48. (4) Required number of items

$= \frac{(3000+1000)}{(60-40)} = \frac{4000}{20} = 200$

49. (1) Let the speed of train C be x kmph.

Speed of train B relative to C

$= (120 - x)$ kmph

$= \left[(120-x) \times \frac{5}{18}\right]$ m/sec

$= \left(\frac{600-5x}{18}\right)$

Distance covered = 100 + 200 = 300m

$\therefore \quad \frac{300}{\left(\frac{600-5x}{18}\right)} = 120$

$\Rightarrow \quad 300 = \frac{120(600-5x)}{18}$

$\Rightarrow \quad 10 \times 9 = 2\,(600 - 5x)$

$\Rightarrow \quad 90 = 1200 - 10x$

$\Rightarrow \quad 10x = 1200 - 90$

$\Rightarrow \quad x = \frac{1110}{10} = 111$ kmph

50. (2) (1) If one green ball in a box, then number of ways = 6
(2) If two green balls in a box, then number of ways = 5
(3) If three green balls in a box, then the number of ways = 4
(4) If four green balls in a box, then number of ways = 3
(5) If five green balls in a box, then number of ways = 2
(6) If six green balls in a box, then number of ways = 1
$\therefore$ Total number of ways
= 6 + 5 + 4 + 3 + 2 + 1 = 21

51. (1) Required percentage = $\frac{285}{540} \times 100$
= 52.77% $\approx$ 53%

52. (3) Required average
$= \frac{190+285+315+240+265}{5}$ kg
= 259 kg

53. (5) D is the farmer which produces maximum quantity of foodgrains.

54. (2) Required ratio = 600 : 255 = 40 : 17

55. (4) Required difference = (350 – 140) = 210 kg

56. (2) The pattern is :
$\frac{1050-30}{2} = 510$
$\frac{510-26}{2} = 242$
$\frac{242-22}{2} = 110 \neq$ **106**
$\frac{110-18}{2} = 46$
$\frac{46-14}{2} = 16$

57. (1) The pattern is :
$550 - 2^2 = 550 - 4 = 546$
$546 - 3^2 = 546 - 9 = 537$
$537 - 4^2 = 537 - 16 = 521$
$521 - 5^2 = 521 - 25$
$= 496 \neq$ **494**
$496 - 6^2 = 496 - 36 = 460$

58. (3) The pattern is :
$8 + 1 \times 13 = 21$
$21 + 2 \times 13 = 21 + 26 = 47$
$47 + 3 \times 13 = 47 + 39 = 86$
$86 + 4 \times 13 = 86 + 52$
$= 138 \neq$ **140**
$138 + 5 \times 13$
$= 138 + 65 = 203$
$203 + 6 \times 13$
$= 203 + 78 = 281$

59. (2) The pattern is :
$4 \times 8 - 8 = 32 - 8 = 24$
$24 \times 7 - 7 = 168 - 7 = 161$
$161 \times 6 - 6 = 966 - 6$
$= 960 \neq$ **965**
$960 \times 5 - 5 = 4800 - 5 = 4795$

60. (3) The pattern is :
$1 \times 2 = 2$
$2 \times 3 = 6 \neq$ **8**
$6 \times 4 = 24$
$24 \times 5 = 120$
$120 \times 6 = 720$
$720 \times 7 = 5040$

61. (5) 18 men × 28 days = 24 women × 54 days
7m = 18w
(12m + 18w) × 16 days + $x \times m \times 4$ days
= 18 × 28 days
(12m + 7m) × 16 + $x \times$ m × 4 = 504
$4x = 504 - 304$
$\Rightarrow \quad x \times 4 = 200$
$x = \frac{200}{4} = 50$ men

62. (2) $\frac{x+2}{y+3} = \frac{5}{8}$
$8x - 5y = -1$ .....(i)
$\frac{x+3}{y+4} = \frac{9}{11}$
$11x - 9y = -1$ .....(ii)
Or, from (i) and (ii)
$4y = 3x$
$\therefore$ Original fraction = $\frac{x}{y} = \frac{4}{3}$

63. (3) Let price of 1L of scotch be ₹ 1
CP of 9L of Scotch = ₹ 9
After adding soda he has a mixture of
= 9 + 2= 11L
Price of 11L of mixture = ₹ 11
As he sells the mixture at 10% higher price than the price of Scotch, So we need to calculate this percentage on pure scotch which is 9L.
So 10% of 9 = ₹ 0.9
Now, SP = 11 + 0.9 = ₹ 11.9
Overall gain = 11.9 – 9 = ₹ 2.9

$$\text{Net Gain \%} = \frac{2.9}{9} \times 100 = 32.2\%$$

64. (5) Sum of money be ₹100
$\therefore$ S. I after 14 year

$$= \frac{100 \times 14 \times 8}{100} = ₹112$$

$\therefore$ Total amount = 100 + 112 = ₹ 212
and amount recieved after two years

$$= 212 \times \frac{110}{100} \times \frac{110}{100} = ₹256.52$$

$\therefore$ C. I = 256.52 – 212 = ₹ 44.52
Now. $4452 \rightarrow 6678$

$$\therefore 100 - \frac{6678}{4452} \times 100 = ₹15000$$

65. (1) Let the present age of A be x years and that of B be y years.
Then, 4 year ago,
A's age = (x – 4) years
B's age = (y – 4) years
Now, according to the question,

$$= \frac{\frac{x-4}{2}}{4(y-4)} = \frac{5}{12}$$

$$\text{or, } \frac{x-4}{2(4y-16)} = \frac{5}{12}$$

$$\text{or, } \frac{x-4}{4y-16} = \frac{5}{6}$$

or, 6x – 24 = 20y – 80
or, 6x – 20y = – 56
or, 10y – 3x = 28 ..... (i)
After 8 years,

$$\frac{x+8}{2} + 2 = y = 8$$

$$\text{or, } \frac{x}{2} + 4 + 2 = y + 8$$

$$\text{or, } y - \frac{x}{2} = -2$$

or, 2y – x = – 4 ..... (ii)
or, x = 2y + 4 ..... (iii)
Putting the value of x in equation (i), we get
10y – 3(2y + 4) = 28
or, 10y – 6y – 12 = 28
or, 4y = 10
Hence the present age of B is 10 years.

(66-70) :

66. (3) No. of qualified candidates in the year

$$1995 = 900 \times \frac{64}{100} = 576$$

No. of male candidates who qualified in the year 1995 = 576 – 176 = 400
$\therefore$ Required ratio = 400 : 176
= 25 : 11

67. (4) No. of qualified candidates in the year 1996

$$= 700 \times \frac{140}{100} \times \frac{25}{100} = 245$$

68. (3) Let the appeared candidates in the year 1992 = 500
and qualified candidates in the year 1992 = 400
No. of qualified female candidate

$$= \frac{400}{8} \times 3 = 150$$

$$\therefore \text{Required\%} = \left(\frac{150}{500} \times 100\right)\% = 30\%$$

69. (4) No. of qualified candidates in the year

$$1994 = \left(\frac{72}{4} \times 14\right) = 252$$

$\therefore$ Total no. of appeared candidates in the year 1994 $= \left(\frac{252}{42} \times 100\right)\% = 600$

70. (2) No. of qualified candidates in the year

$$1993 = 480 \times \frac{60}{100} = 288$$

$\therefore$ No. of qualified candidates in the year 1991 = 249 × 2 – 288 = 210

$$\therefore \text{Required\%} = \left(\frac{210}{700} \times 100\right)\% = 30\%$$

71. (2) Perimeter = Distance covered in 8 min.

$$= \left(\frac{12000}{60} \times 8\right) \text{m} = 1600 \text{ m.}$$

Let length = $3x$ metres and breadth = $2x$ metres.
Then, $2(3x + 2x) = 1600$ or $x = 160$
$\therefore$ Length = 480 m and Breadth = 320 m

$\therefore$ Area = (480 × 320) m^2 = 153600 m^2

72. (4) Cost of $\frac{1}{4}$ of goods = $\frac{400}{4}$ = ₹ 100

SP of $\frac{1}{4}$ of goods = $100 \times \frac{80}{100}$ = ₹ 80

SP of whole item = $400 \times \frac{120}{100}$ = ₹ 480

$\therefore$ SP of the remaining $\frac{3}{4}$ of goods must be ₹ (480 – 80) = ₹ 400

But the CP of three-fourths of goods = ₹ 100 × 3 = ₹ 300

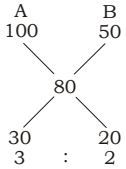
$\therefore$ Gain% = $\left(\frac{100}{300} \times 100\right)\% = 33\frac{1}{3}\%$

73. (1) Total no. of balls = 5 + 8 = 13

$\therefore$ Required probability = $\frac{{}^5C_3}{{}^{13}C_3} \times \frac{{}^8C_3}{{}^{13}C_3}$

$= \frac{140}{20449}$

74. (5) CP of 1000 kg of mixture
110000 – 30000 = ₹ 80000
$\therefore$ CP of one kg of mixture = ₹80
By the method of alligation :



Required ratio = 3 : 2

75. (4) $\because$ $\frac{3}{5}\%$ of total distance
40 × 3 + 60 × 4.5
= 120 + 270 = 390 km

$\therefore$ Total distance = $\frac{390}{3} \times 5$ = 650 km

$\therefore$ Remaining distance = 650 – 390 = 260 km

$\therefore$ Average speed = $\frac{260}{4}$ = 65 kmph

(76-80) :

76. (2) $x^2 - 51x + 650 = 0$
$\Rightarrow x^2 - 26x - 25x + 650 = 0$
$\Rightarrow x(x - 26) - 25(x - 26) = 0$
$\Rightarrow (x - 25)(x - 26) = 0$
$\Rightarrow x = 25, 26$

II. $y^3 = 15625$
$\Rightarrow y = 25$
Clearly, $x \geq y$

77. (5) I. $2x^2 - 33x + 91 = 0$
$\Rightarrow 2x^2 - 26x - 7x + 91 = 0$
$\Rightarrow 2x(x - 13) - 7(x - 13) = 0$
$\Rightarrow (2x - 7)(x - 13) = 0$

$\Rightarrow x = \frac{7}{2}, 13$

II. $2y^2 - 39y + 70 = 0$
$\Rightarrow 2y^2 - 4y - 35y + 70 = 0$
$\Rightarrow 2y(y - 2) - 35(y - 2) = 0$
$\Rightarrow (2y - 35)(y - 2) = 0$

$\Rightarrow y = \frac{35}{2}, 2$

78. (3) I. $x^2 - 32x + 255 = 0$
$\Rightarrow x^2 - 15x - 17x + 255 = 0$
$\Rightarrow x(x - 15) - 17(x - 15) = 0$
$\Rightarrow (x - 17)(x - 15) = 0$
$\Rightarrow x = 17, 15$
II. $y^2 - 39y + 378 = 0$
$\Rightarrow y^2 - 21y - 18y + 378 = 0$
$\Rightarrow y(y - 21) - 18(y - 21) = 0$
$\Rightarrow (y - 18)(y - 21) = 0$
$\Rightarrow y = 18, 21$
Clearly, $x > y$

79. (3) I. $2x^2 - 30x - 19x + 285 = 0$
$\Rightarrow 2x(x - 15) - 19(x - 15) = 0$
$\Rightarrow (2x - 19)(x - 15) = 0$

$\Rightarrow x = \frac{19}{2}, 15$

II. $y^2 + 2y - 48 = 0$
$\Rightarrow y^2 + 8y - 6y - 48 = 0$
$\Rightarrow y(y + 8) - 6(y + 8) = 0$
$\Rightarrow (y - 6)(y + 8) = 0$
$\Rightarrow y = 6, -8$
Clearly, $x < y$

80. (5) I. $64x^2 - 50 = 14$
$\Rightarrow 64x^2 = 64$
$\Rightarrow x^2 = 1$
$\Rightarrow x = +1, -1$

II. $9y^2 + \sqrt{121} = \sqrt{225}$
$\Rightarrow 9y^2 + 11 = 15$
$\Rightarrow 9y^2 = 4$

$\Rightarrow y^2 = \frac{4}{9}$

$\Rightarrow y = +\frac{2}{3}, -\frac{2}{3}$

IBPS RRB OFFICER PHASE - I - 153 (ANSWER KEY)

1. (3)	21. (5)	41. (2)	61. (5)
2. (4)	22. (2)	42. (3)	62. (2)
3. (1)	23. (2)	43. (1)	63. (3)
4. (3)	24. (4)	44. (3)	64. (5)
5. (4)	25. (2)	45. (3)	65. (1)
6. (4)	26. (4)	46. (1)	66. (3)
7. (4)	27. (1)	47. (3)	67. (4)
8. (4)	28. (5)	48. (4)	68. (3)
9. (5)	29. (4)	49. (1)	69. (4)
10. (4)	30. (2)	50. (2)	70. (2)
11. (5)	31. (1)	51. (1)	71. (2)
12. (2)	32. (5)	52. (3)	72. (4)
13. (4)	33. (3)	53. (5)	73. (1)
14. (5)	34. (2)	54. (2)	74. (5)
15. (2)	35. (4)	55. (4)	75. (4)
16. (5)	36. (3)	56. (2)	76. (2)
17. (3)	37. (3)	57. (1)	77. (5)
18. (4)	38. (4)	58. (3)	78. (3)
19. (1)	39. (4)	59. (2)	79. (3)
20. (3)	40. (2)	60. (3)	80. (5)

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