

**IBPS RRB OFFICER PHASE - I - 156 (SOLUTION)**

**REASONING**

(1 - 5) :

Hotel	Person	Level of Rooms
Oberoi	P	Platinum
Park Hyatt	Q	Deluxe
ITC Grand	S	Dimond
Park Plaza	W	Gold
The Gateway	X	Luxury

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

(6-10) :

6. (4)  $F < J \leq T \geq R$   
I.  $F > T \rightarrow$  False  
II.  $F = R \rightarrow$  False
7. (1)  $M > K = H \geq L$   
I.  $M > L \rightarrow$  True  
II.  $M < H \rightarrow$  False
8. (5)  $Q = H < L < F$   
I.  $Q < F \rightarrow$  True  
II.  $H < F \rightarrow$  True
9. (2)  $D > E \geq I \geq K$   
I.  $D \geq I \rightarrow$  False  
II.  $E \geq K \rightarrow$  True
10. (5)  $V < W \leq U < R$   
I.  $V < R \rightarrow$  True  
II.  $W < R \rightarrow$  True

(11-15) :

FLOOR	PERSON	YEAR
8	F	2004
7	Q	1998
6	R	1985
5	D	2006
4	S	1996
3	E	1988
2	G	2000
1	T	1994

11. (3)      12. (2)      13. (4)  
14. (4)      15. (1)

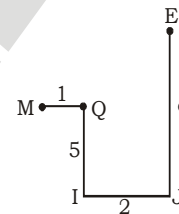
(16-20) :

The machine rearranges one word and one number in each step. As for word, the words are arranged in alphabetical order while for numbers, perfect square and non-perfect square come in each alternate step in ascending order.

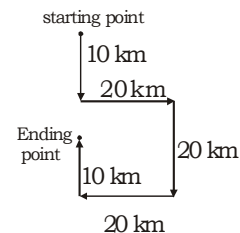
- Input:** ink 17 silent 100 burn 15 49 June 25 queen 64 3 firefox 20 time  
**Step I:** burn 25 ink 17 silent 100.15 49 June queen 64 3 firefox 20 time  
**Step II:** burn 25 firefox 3 ink 17 silent 100 15 49 June queen 64 20 time  
**Step III:** burn 25 firefox 3 ink 49 17 silent 100 15 June queen 64 20 time  
**Step IV:** burn 25 firefox 3 ink 49 June 15 17 silent 100 queen 64 20 time  
**Step V:** burn 25 firefox 3 ink 49 June 15 queen 64 17 silent 100 20 time  
**Step VI:** burn 25 firefox 3 ink 49 June 15 queen 64 silent 17 100 20 time  
**Step VII:** burn 25 firefox 3 ink 49 June 15 queen 64 silent 17 time 100 20

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

(21-22) :



21. (5) 3 km  
22. (4)  
23. (2) 20 km, South




24. (3)  
25. (4)

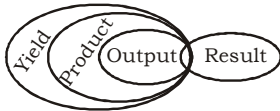
(26-30) :

Boy	Visit	Girl	Car
F	Circus	M	BMW / Kwid
G	Movie	P	Maruti
H	Disco	R	Maruti
I	Circus	N	BMW / Kwid
J	Park	Q	Audi
K	Park	O	BMW

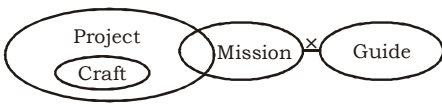
26. (4)      27. (3)      28. (4)  
29. (1)      30. (3)

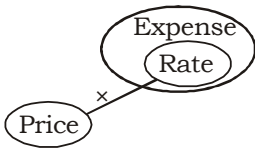
31. (4)   
 I. False                      II. False  
 Neither conclusion I nor conclusion II follow

(32-33) :

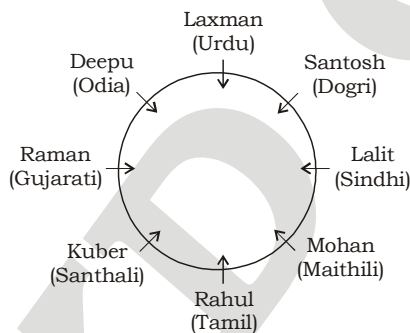


32. (4) I. False                      II. False  
 Neither conclusion I nor conclusion II follows  
 33. (5) I. True                      II. True  
 Both conclusion I and conclusion II follows

34. (3)   
 I. Can't say                      II. Can't say  
 Either conclusion I or conclusion II follows

35. (2)   
 I. False                      II. True  
 Only conclusion II follows

(36-40) :



36. (1)                      37. (2)                      38. (4)  
 39. (2)                      40. (3)

**Maths**

41. (1)  $? = \frac{6255.22}{18.5 \times 21.4} = 15.8$   
 42. (2)  $? = \frac{1.5 \times 78}{0.5} = 234$   
 43. (4)  $? = 302.46 + 395.72 - 123.47$   
 $= 698.18 - 123.47 = 574.71$

44. (3)  $\sqrt[3]{?} = \sqrt[3]{4096} \div \sqrt[3]{64}$   
 $= \sqrt[3]{16 \times 16 \times 16} \div \sqrt[3]{4 \times 4 \times 4}$   
 $= 16 \div 4 = 4$   
 $\therefore ? = 4 \times 4 \times 4 = 64$   
 45. (4)  $\frac{800 \times ?}{100} = 293 - \frac{750 \times 22}{100}$   
 $\Rightarrow 8 \times ? = 293 - 165 = 128$   
 $\Rightarrow ? = \frac{128}{8} = 16$   
 46. (3) Required ratio = 475 : 425 = 19 : 17  
 47. (2) Total distance covered by all the trucks  
 $= \frac{2375}{5} = 475$   
 48. (2) Total distance covered by A = 475 km  
 Time taken =  $\frac{475}{47.5} = 10$  hours  
 49. (4) Total distance covered by E = 575 km  
 Total distance covered by B and C together = 350 + 550 = 900 km  
 Required% =  $\frac{575}{900} \times 100 \approx 64\%$

50. (4) Required speed =  $\frac{550}{8} = 68.75$  km/h.

(51-55) :

51. (5) The pattern of the number series is :  
 $389 - 117 = 272$   
 $525 - 389 = 136$   
 $593 - 525 = 68$   
 $627 - 593 = 34$   
 $\therefore ? = 627 + 17 = \mathbf{644}$

52. (4) The pattern of the number series is :  
 $7 + 1 \times 4 = 11$   
 $11 + (1 + 2) \times 4 = 11 + 3 \times 4 = 23$   
 $23 + (3 + 4) \times 4 = 23 + 7 \times 4 = 51$   
 $51 + (7 + 6) \times 4 = 51 + 13 \times 4 = 103$   
 $103 + (13 + 8) \times 4 = 103 + 21 \times 4 = \mathbf{187}$

53. (4) The pattern of the number series is :  
 $18 + 9 = 27$   
 $27 + (9 + 13) = 49$   
 $49 + (9 + 26) = 84$   
 $84 + (9 + 39) = 132$   
 $132 + (9 + 52) = \mathbf{193}$

54. (2) The pattern of the number series is :  
 $33 + 10 = 43$   
 $43 + (10 + 12) = 65$   
 $65 + (10 + 24) = 99$   
 $99 + (10 + 36) = 145$   
 $145 + (10 + 48) = \mathbf{203}$

55. (5) The pattern of the number series is :  
 $655 - 439 = 216 = 6^3$   
 $439 - 314 = 125 = 5^3$   
 $314 - 250 = 64 = 4^3$   
 $250 - 223 = 27 = 3^3$   
 $\therefore ? = 223 - 2^3 = 223 - 8 = \mathbf{215}$

**(56-60):**

56. (3) Total no. of teachers in Bangalore

$$= 3360 \times \frac{80}{100} = 2688$$

∴ No. of female teachers

$$= 2688 - 1800 = 888$$

No. of female teachers in the next year

$$= 888 \times \frac{150}{100} = 1332$$

and the no. of female employees in

$$\text{Bangalore} = \frac{3360}{14} \times 6 = 1440$$

$$\therefore \text{Required \%} = \left( \frac{1332}{1440} \times 100 \right) \%$$

$$= 92.5 \%$$

57. (1) No. of female employees in Bengal

$$= \frac{2054}{13} \times 6 = 948$$

$$\therefore \text{Required \%} \left( \frac{948}{2054} \times 100 \right) \% = 46.15 \%$$

No. of female employees in UP

$$= \frac{2880}{16} \times 5 = 900$$

$$\therefore \text{Required \%} = \left( \frac{900}{2880} \times 100 \right) \% = 31.25 \%$$

No. of female employees in Bangalore

$$= \frac{3360}{14} \times 6 = 1440$$

$$\therefore \text{Required \%} = \left( \frac{1440}{3360} \times 100 \right) \% = 42.85 \%$$

No. of female employees in MP

$$= \frac{2788}{41} \times 21 = 1428$$

$$\therefore \text{Required \%} = \left( \frac{1428}{2788} \times 100 \right) \% = 51.21 \%$$

No. of female employees in Delhi

$$= \frac{2568}{12} \times 7 = 1498$$

$$\therefore \text{Required \%} = \left( \frac{1498}{2568} \times 100 \right) \% = 58.33 \%$$

∴ Required answer is Bengal.

58. (4) Total no. of male employees in UP and Bangalore together

$$= \frac{2880}{16} \times 11 + \frac{3360}{14} \times 8$$

$$= 1980 + 1920 = 3900$$

Total no. of teachers in UP and Bangalore together

$$= 2880 \times \frac{65}{100} + 3360 \times \frac{80}{100}$$

$$= 1872 + 2688 = 4560$$

∴ Required ratio = 3900 : 4560 = 65 : 76

59. (1) Average no. of teachers in Delhi, UP and Bihar together

$$= \frac{2568 \times \frac{75}{100} + 2880 \times \frac{65}{100} + 3575 \times \frac{60}{100}}{3}$$

$$= \frac{1926 + 1872 + 2145}{3} = 1981$$

Average no. of teachers in MP, Mumbai and Bangalore together

$$= \frac{2788 \times \frac{75}{100} + 3720 \times \frac{55}{100} + 3360 \times \frac{80}{100}}{3}$$

$$= \frac{2091 + 2046 + 2688}{3} = 2275$$

∴ Required difference = 2275 - 1981 = 294

60. (1) Average no. of employees per office in

$$\text{Bihar} = \frac{3575}{22} = 162.5$$

$$\text{Bagalore} = \frac{3360}{21} = 160$$

$$\text{Mumbai} = \frac{3720}{24} = 155$$

$$\text{Delhi} = \frac{2568}{16} = 160.5$$

$$\text{MP} = \frac{2788}{17} = 164$$

∴ Required answer is Bihar.

61. (3) Total water filled in 1 hour

$$= 42 + 56 - 48 = 50 \text{ litres}$$

$$\text{Water filled in 16 hours} = 16 \times 50 = 800 \text{ litres}$$

Hence the capacity of tank = 800 litres.

62. (4) 

With stop	:	Without stop
Speed 40	:	50
Time 50	:	40

$$\text{Speed } 40 \quad : \quad 50$$

$$\text{Time } 50 \quad : \quad 40$$

So, train takes 1 hours extra in every 5 hrs.

So, stop 12 minutes in each hour.

63. (1) Probability of getting sum is four.

Favourable events = (1, 3) (3, 1) (2, 2)

$$= \frac{\text{Favourable events}}{\text{Total events}} = \frac{3}{36} = \frac{1}{12}$$

64. (5) Type A      Type A  
 $\begin{array}{ccc} & 614 & 695 \\ & \diagdown & \diagup \\ & 767 \times 100 & \\ & 118 & \\ & \diagup & \diagdown \\ 45 & & 36 \end{array}$

$\therefore$  Ratio of A : B = 5 : 4

So, type B sugar will be  $(7 \times 4) = 28$  kg

65. (3) Let the total sum be ₹ x.

$$\text{Then, } \frac{2}{3}x \times \frac{12}{100} + \frac{1}{3}x \times \frac{6}{100} + \frac{10}{100}x - \frac{x}{3} = ₹1650$$

$$\text{or, } \frac{48x}{100} + \frac{21x}{300} = 1650$$

$$\text{or, } \frac{144x + 21x}{300} = 1650$$

$$\therefore x = \frac{1650 \times 300}{165} = ₹ 3000$$

**(66-70) :**

66. (5) Let expenditure of company A in the year 2012 = 100

$$\therefore \text{Income} = 100 \times \frac{130}{100} = 130$$

and Expenditure of company B in the year 2015 = 130

$$\therefore \text{Required ratio} = 100 \times \frac{30}{100} : 130 \times \frac{50}{100} = 30 : 65 = 6 : 13$$

67. (3) Let expenditure of company A in the year 2015 = ₹100

$$\therefore \text{Income} = 100 \times \frac{140}{100} = ₹140$$

and expenditure of company A in the year 2016 = ₹140

$$\therefore \text{Income} = 140 \times \frac{150}{100} = ₹210$$

$$\therefore \text{Required ratio} = 140 : 210 = 2 : 3$$

68. (3) Percentage profit increased over the previous year is as follows :

$$2012 = \left[ \frac{20 - 15}{15} \times 100 \right] \% = 33.33\%$$

$$2013 = \left[ \frac{30 - 20}{20} \times 100 \right] \% = 50\%$$

$$2014 = 0\%$$

$$2015 = \left[ \frac{50 - 30}{30} \times 100 \right] \% = 66.66\%$$

$$2016 = \left[ \frac{60 - 50}{50} \times 100 \right] \% = 20\%$$

$\therefore$  Required answer is 2015.

69. (2) Expenditure of company A in the year 2011 = ₹40 crore

$$\therefore \text{Income} = 40 \times \frac{120}{100} = 48 \text{ crore}$$

70. (4)

71. (2) Number of balls =  $6 + 5 + 8 = 19$

Exhaustive number of cases = Ways of selecting 4 balls out of 19

$$= {}^{19}C_4 = \frac{19 \times 18 \times 17 \times 16}{1 \times 2 \times 3 \times 4} = 3876$$

Favourable number of cases = Selecting 4 red balls or any two green balls out of the four =  $6c_4 + 5c_2 \times 14c_2$

$$= \frac{6 \times 5 \times 4 \times 3}{1 \times 2 \times 3 \times 4} + \frac{5 \times 4}{2} \times \frac{14 \times 13}{2}$$

$$= 15 + 910 = 925$$

$\therefore$  Required probability

$$= \frac{925}{3876}$$

72. (3) Number of valid votes

$$= 8400 \times \frac{75}{100} = 6300$$

Number of valid votes got by other person (defeated) = 48% of 6300

$$= \frac{6300 \times 48}{100} = 3024$$

73. (3) Let the rate of interest be R% per annum.

$$\therefore \text{CI} = P \left[ \left( 1 + \frac{R}{100} \right)^T - 1 \right]$$

$$\Rightarrow 5596.8 = 22000 \left[ \left( 1 + \frac{R}{100} \right)^2 - 1 \right]$$

$$\Rightarrow \frac{5596.8}{22000} = \left( 1 + \frac{R}{100} \right)^2 - 1$$

$$\Rightarrow \left( 1 + \frac{R}{100} \right)^2 = 1 + \frac{5596.8}{22000}$$

$$\Rightarrow \left( 1 + \frac{R}{100} \right)^2 = \frac{22000 + 5596.8}{22000} = \frac{27596.8}{22000}$$

$$\Rightarrow \left( 1 + \frac{R}{100} \right)^2 = \frac{275968}{220000} = \frac{12544}{10000}$$

$$\Rightarrow 1 + \frac{R}{100} = \sqrt{\frac{12544}{10000}} = \frac{112}{100}$$

$$\Rightarrow \frac{R}{100} = \frac{112}{100} - 1 = \frac{112 - 100}{100} = \frac{12}{100}$$

$$\Rightarrow R = 12\%$$

$$\therefore \text{SI} = \frac{\text{Principal} \times \text{Time} \times \text{Rate}}{100}$$

$$= \frac{22000 \times 2 \times 12}{100} = ₹ 5280$$

74. (2) Here,  
 $x = 30, y = 10, a = 4$  and  $n = 2$

$$\therefore \text{Required ratio} = \left(1 - \frac{a}{x+y}\right)^n$$

$$= \left(1 - \frac{4}{30+10}\right)^2 = \left(1 - \frac{4}{40}\right)^2$$

$$= \left(1 - \frac{1}{10}\right)^2 = \left(\frac{9}{10}\right)^2$$

$$= \frac{81}{100} = 81 : 100$$

75. (3) Side of square

$$= \sqrt{\text{Area}} = \sqrt{196} = 14 \text{ cm}$$

$$\therefore \text{Radius of circle} = 28 \text{ cm}$$

$$\therefore \text{Circumference of circle}$$

$$= 2 \times \frac{22}{7} \times 28 = 176 \text{ cm}$$

If the length of rectangle be  $x$  cm then,

$$2(x + 176) = 712$$

$$\Rightarrow x + 176 = \frac{712}{2} = 356$$

$$\therefore x = 356 - 176 = 180 \text{ cm}$$

**(76-80):**

76. (4) I.  $4x^2 - 8x + 3 = 0$

$$\Rightarrow 4x^2 - 2x - 6x + 3 = 0$$

$$\Rightarrow 2x(2x - 1) - 3(2x - 1) = 0$$

$$\Rightarrow (2x - 3)(2x - 1) = 0$$

$$\therefore x = \frac{3}{2} \text{ or } \frac{1}{2}$$

II.  $2y^2 - 7y + 6 = 0$

$$\Rightarrow 2y^2 - 4y - 3y + 6 = 0$$

$$\Rightarrow 2y(y - 2) - 3(y - 2) = 0$$

$$\Rightarrow (2y - 3)(y - 2) = 0$$

$$\therefore y = \frac{3}{2} \text{ or } 2$$

Clearly,  $x \leq y$

77. (1) I.  $2x^2 - 95x + 828 = 0$

$$\Rightarrow 2x^2 - 72x - 23x + 828 = 0$$

$$\Rightarrow 2x(x - 36) - 23(x - 36) = 0$$

$$\Rightarrow (2x - 23)(x - 36) = 0$$

$$\therefore x = \frac{23}{2}, 36$$

II.  $2y^2 - 13y + 21 = 0$

$$\Rightarrow 2y^2 - 6y - 7y + 21 = 0$$

$$\Rightarrow 2y(y - 3) - 7(y - 3) = 0$$

$$\Rightarrow (2y - 7)(y - 3) = 0$$

$$\therefore y = \frac{7}{2}, 3$$

Clearly,  $x > y$

78. (1) I.  $18x^2 - 21x + 6 = 0$

$$\Rightarrow 18x^2 - 9x - 12x + 6 = 0$$

$$\Rightarrow 9x(2x - 1) - 6(2x - 1) = 0$$

$$\Rightarrow (9x - 6)(2x - 1) = 0$$

$$\Rightarrow x = \frac{6}{9} \text{ or } \frac{1}{3}$$

II.  $2y^2 + 13y + 21 = 0$

$$\Rightarrow 2y^2 + 6y + 7y + 21 = 0$$

$$\Rightarrow 2y(y + 3) + 7(y + 3) = 0$$

$$\Rightarrow (2y + 7)(y + 3) = 0$$

$$\therefore y = -\frac{7}{2} \text{ or } -3$$

Clearly,  $x > y$

79. (5) I.  $x^2 = 256$

$$\Rightarrow x = +16, -16$$

II.  $3y^2 + 14y + 16 = 0$

$$\Rightarrow 3y^2 + 6y + 8y + 16 = 0$$

$$\Rightarrow 3y(y + 2) + 8(y + 2) = 0$$

$$\Rightarrow (3y + 8)(y + 2) = 0$$

$$\Rightarrow y = -\frac{8}{3} \text{ or } -2$$

80. (4) I.  $8x^2 + 6x + 20 = 25$

$$\Rightarrow 8x^2 + 6x - 5 = 0$$

$$\Rightarrow 8x^2 + 10x - 4x - 5 = 0$$

$$\Rightarrow 2x(4x + 5) - 1(4x + 5) = 0$$

$$\Rightarrow (2x - 1)(4x + 5) = 0$$

$$\Rightarrow x = \frac{1}{2} \text{ or } -\frac{5}{4}$$

II.  $6y^2 - 11y + 10 = 6$

$$\Rightarrow 6y^2 - 11y + 4 = 0$$

$$\Rightarrow 6y^2 - 3y - 8y + 4 = 0$$

$$\Rightarrow 3y^2(2y - 1) - 4(2y - 1) = 0$$

$$\Rightarrow (3y - 4)(2y - 1) = 0$$

$$\Rightarrow y = \frac{4}{3} \text{ or } \frac{1}{2}$$

Clearly,  $x \leq y$

KD  
Campus

**KD Campus**

2007, OUTRAM LINES, 1ST FLOOR, OPPOSITE MUKHERJEE NAGAR POLICE STATION, DELHI-110009

**IBPS RRB OFFICER PHASE - I - 156 (ANSWER KEY)**

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

**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**