IBPS PO SPECIAL PHASE -I MOCK TEST - 265 (SOLUTION)

REASONING

1. (1) **Given statements :**
Combining both statements, we get
$L < P \geq N = S < R < Q$
Thus, we can't compare L and Q. Hence II ($L \geq Q$) is not true.
$T > L$ is true.
Hence I is true.

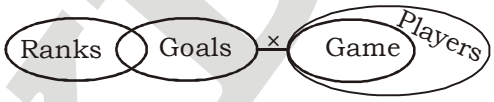
2. (5) **Given statements :**
Combining both statements, we get
$M \leq R \leq N = B < S \leq K$
Thus, $K > R$ is true. Again, $M < S$ is true.
Hence both I and II are true.

3. (1) **Given statements :**
Combining bot statements, we get
$W > U = T \geq B$
Thus, $W > T$ is true. Hence I is true.
Again from (i), we can't compare U and J.
Hence II ($J > U$) is not true. Hence only I is true.

4. (4) **Given statements :**
Combining (i) and (ii) get
$B < U = T > X = P$
Thus, we can't compare B and P.
Hence I ($B \geq P$) is not true.
Again, from (i), we can't compare W and M.
Hence II ($M \leq W$) is not true. So, neither conclusion I nor II is true.

5. (5) **Given statements :**
Combining both statements, we get
$G \geq H > K \geq L > R \geq Q$
Thus, $G > R$ is true.
Again, $H > Q$ is true. Hence both I and II are true.

(6–7) :



6. (5) **Conclusion :**
I. True II. True

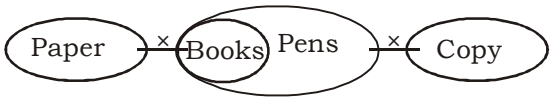
7. (2) **Conclusion :**
I. Can't Say II. True

(8–9) :

8. (5) **Conclusions :**
I. True II. True

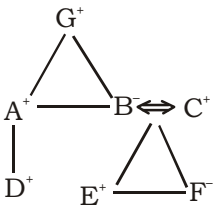
9. (2) **Conclusions :**
I. Can't say II. True

10. (2) **Conclusions :**



I. Can't say II. True

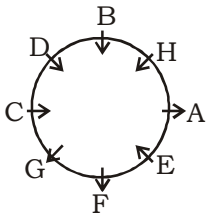
(11–12) :



Three fathers (G, A, C), two brothers (A and E), two sisters (B and F), one husband (C), one wife (B), two brothers-in-law (A and C), two daughters (B and F), three sons (A, D and E), three cousins (D, E and F), two nephews (D and E), one grandfather (G) and one niece (F)

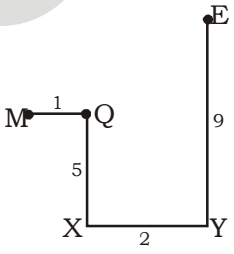
11. (2) 12. (1) 13. (3)

(14 – 18) :



14. (2) 15. (4) 16. (1)
17. (3) 18. (4)

(19–20) :



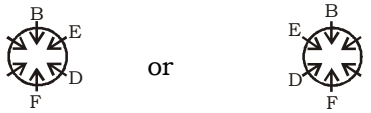
19. (5) 3 km 20. (4)

(21–25) :

Person	Subject	Year
P	Marathi	2nd
Q	Geography	1st
R	Economics	1st
S	Chemistry	3rd
T	Biology	2nd
U	Physics	1st
V	Mathematics	2nd
W	English	3rd

21. (2) 22. (4) 23. (5) 24. (3) 25. (1)

26. (2) From I. Possible diagrams:



Hence I alon is not sufficient to answer the question.

From II.

Hence, C is second to the left of E

Hence II alone is sufficient to answer the question.

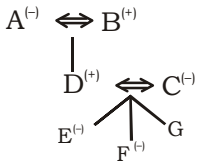
27. (5) **From both I and II.**

$Z > Y > V = W > X$

$(x + p)$ $(x + 5)$ $(x + 5)$

Hence Z scores the highest runs.

28. (5) From both I and II



Hence, A is grandmother of E

29. (5) From both I and II.

T V S X P _ Q

Q _ P X S V T

Hence X is the middle of the row.

30. (1)

(31–35) :

In every step, words whose first letter is a vowel, are arranged according to dictionary from left to right in descending order and words whose first letter is a constant are arranged from right to left in ascending order.

Input : gem stat ace cast omit fan rate uncut era input

Step I : uncut gem stat ace omit fan rate era input cast

Step II : uncut omit gem stat ace rate era input fan cast

Step III : uncut omit input stat ace rate era gem fan cast

Step IV : uncut omit input era stat ace rate gem fan cast

Step V : uncut omit input era ace stat rate gem fan cast

31. (3) 32. (1) 33. (1) 34. (4) 35. (5)

MATHS

36. (4) $? = (4576 + 3286 + 5639) \div (712 + 415 + 212) = 13501 \div 1339 = 10.08 \approx 10$

37. (5) $? = 675.456 + 12.492 \times 55.671$

$\approx 675 + 12.5 \times 56$

$= 675 + 700 = 1375 \approx 1371$

38. (1) $? \approx (447)^2 = 199809 \approx 200000$

39. (3) $? = \dfrac{4374562 \times 64}{7777} = 35999.99 \approx 36000$

40. (2) $? = \dfrac{659 \times 872}{100} \div 543 = 10.58 \approx 11$

41. (3) Males in $D_1 = \frac{9000 \times 18}{100} \times \frac{7}{20} = 567$

Similarly, $D_2 = 609$, $D_3 = 488$, $D_4 = 726$
$D_5 = 351$, $D_6 = 969$, $D_7 = 240$

$\therefore$ Total number of males = 3950

42. (4) Total employees in D_3

$9000 \times \frac{12.2}{100} = 1098$

Females in $D_3 = 1098 \times \frac{5}{9} = 610$

$\therefore$ Reqd % $= \frac{610}{1098} \times 100 = 55.55\% \approx 55.5\%$

43. (5) Ratio of males to females in Department D_7
= M : F = 8 : 13

$\therefore$ Reqd % $= \frac{(13-8)}{8} \times 100 = 62.5\%$

44. (3) $D_1 = 9000 \times \frac{18}{100} = 1620$

Male : Female = 7 : 13

$\therefore$ Difference $= 1620 \times \frac{(13-7)}{20} = 486$

Similarly, $D_2 = 1305 \times \frac{1}{15} = 87$

$D_3 = 1098 \times \frac{1}{9} = 122$

$D_4 = 1485 \times \frac{1}{45} = 33$

$D_5 = 810 \times \frac{4}{30} = 108$

$D_6 = 2052 \times \frac{2}{36} = 114$

$D_7 = 630 \times \frac{5}{21} = 150$

45. (3) Females in $D_1 = \frac{9000 \times 18}{100} \times \frac{13}{20} = 1053$

Similarly, $D_2 = 696$, $D_3 = 610$, $D_4 = 759$,
$D_5 = 459$, $D_6 = 1083$, $D_7 = 390$

$\therefore$ Total females = 1053 + 696 + 610 + 759 + 459 + 1083 + 390 = 5050

$\therefore$ Reqd % $= \frac{5050}{9000} \times 100 = 56.11\%$

46. (1) The given number series is based on the following pattern.
$1^1 = 1$; $2^2 = 4$
$3^3 = 27$; $4^4 = 256$
$5^5 = 3125$; $6^6 = 46656$
Hence 46658 is the wrong number.

47. (4) The given number series is based on the following pattern.
18000 ÷ 5 = 3600
3600 ÷ 5 = 720
720 ÷ 5 = 144 ≠ 142.2
144 ÷ 5 = 28.3
28.8 ÷ 5 = 5.76
Hence 142.2 is the wrong number.

48. (5) The given number series is based on the following pattern.
$12 + 15^2 = 12 + 225 = 237$
$237 + 13^2 = 237 + 169 = 406$
$406 + 11^2 = 406 + 121 = 527$
$527 + 9^2 = 608 = 527 + 81 = 608$
$608 + 7^2 = 608 + 49 = 657$
Hence 604 is the wrong number.

49. (3) The given number series is based on the following pattern.
3 × 7 + 2 × 7 = 21 + 14 = 35
35 × 6 + 3 × 6 = 210 + 18
= 228 ≠ 226
228 × 5 + 4 × 5 = 1140 + 20 = 1160
1160 × 4 + 5 × 4 = 4640 + 20 = 4660
4660 × 3 + 6 × 3 = 13980 + 18 = 13998
Hence 226 is the wrong number

50. (2) The given number series is based on the following pattern.
18 × 7 – 7 = 126 – 7 = 119
119 × 6 – 6 = 714 – 708
708 × 5 – 5 = 3540 – 5 = 3535 ≠ 3534
3535 × 4 – 4 = 14140 – 4 = 14136
14136 × 3 – 3 = 42405
Hence 3534 is the wrong number.

51. (2) Using Alligation Method,

Sugar I	**Sugar II**
5.75	4.50

5.50

5.50 – 4.50	5.75 – 5.50
=1.00	= 0.25

i.e., 4 : 1

Hence, the required quantity of Sugar I = $\frac{75}{1}$ × 4 = 300 kg

52. (2) The numbers of points term scored
= 8 × 84 – 92 + 85 = 672 – 92 + 85 = 665

53. (2) SI = $\frac{15000 \times 9 \times 2}{100}$ = ₹ 2700

$$CI = 12000 \left[\left(1+\frac{8}{100}\right)^2 - 1\right] = 12000 \left[\left(\frac{27}{25}\right)^2 - 1\right]$$

$$= 12000 \left[\frac{729-625}{625}\right] = 12000 \times \frac{104}{625} = ₹\ 1996.8$$

∴ Total interest earned = ₹ (2700 + 1996.8) = ₹ 4696.8

54. (3) Total marked Price of article = 25 × 45 = ₹ 1125

Selling Price (Giving 10% discount) = $\frac{90}{100}$ of 1125 = ₹ 1012.5

CP = $\frac{1012.50}{150}$ × 100 = ₹ 675

Now the selling price is ₹1125 then profit = 1125 – 675 = ₹ 450

% profit = $\frac{450}{675}$ × 100 = $66\frac{2}{3}$%

55. (2) Let the length of the piece be x m

Cost of price = ₹ 35

Then, price per metre = ₹ $\frac{35}{x}$

$(x + 4)\left(\frac{35}{x} - 1\right) = 35$

x = 10 m

56. (3) Annual sales of all companies in FY 2006–07 = (150 + 200 + 225 + 250 + 300) = 1125 lakh
Annual sales of all companies in FY 2011–12 = (325 + 350 + 400 + 450 + 500) = ₹ 2025 lakh

∴ Percentage increase = $\frac{2025 - 1125}{1125}$ × 100 = 80%

57. (4) Honda → Sales in FY 2006–07 = 300 lakh and in FY 2011–12 = 400 lakh

% increase in sales = $\frac{400 - 300}{300}$ × 100 = 33.33%

Maruti → Sales in the FY 2006–07 = 250 lakh and in FY 2011–12 = 500 lakh

%. increase in sales = $\frac{500 - 250}{250}$ × 100 = 100%

Tata → Sales in FY 2006–07 = 200 lakh and in FY 2011–12 = 325 lakh

% increase in sales = $\frac{325 - 200}{200}$ × 100 = 62.5%

Hyundai → Sales in FY 2006–07 = 225 lakh and in FY 2011-12 = 350 lakh

% increase in sales = $\frac{350 - 225}{225}$ × 100 = 55.55%

Toyota → Sales in FY 2006–07 = 150 lakh and in FY 2011–12 = 450 lakh

% increase in sales = $\frac{450 - 150}{150}$ ×100 = 200%

Hence, Toyota recorded highest percentage increase in sales.

58. (2) Average sales of all companies:

In FY 2006–07 = $\frac{1}{5}$ × (150 + 200 + 225 + 250 + 300) = 225

In FY 2007–08 = $\frac{1}{5}$ × (200 + 250 + 300 + 350 + 450) = 310

In FY 2008–09 = $\frac{1}{5}$ × (150 + 250 + 300 + 325 + 350) = 275

In FY 2009–10 = $\frac{1}{5}$ × (100 + 250 + 275 + 375 + 475) = 295

In FY 2010–11 = $\frac{1}{5}$ × (200 + 250 + 300 + 400 + 450) = 320

In FY 2011–12 = $\frac{1}{5}$ × (325 + 350 + 400 + 450 + 500) = 405

∴ Average minimum sales is in FY 2006– 07.

59. (3) Total sales of Hyundai and Maruti in FY 2006–07 = (225 + 250) = 475 lakh
Total sales of Tata and Honda in FY 2006–07 = (200 + 300) = 500

Reqd% = $\frac{500 - 475}{500} \times 100 = \frac{25}{500} \times 100$ = 5% less

Hence, total sale of Maruti and Hyundai is 5% less than the total sales of Tata and Honda.

60. (4) Total sale of Honda in 2009–10 = 375 Total sale of Toyota in 2009–10 = 250

∴ Reqd % = $\frac{375 - 250}{250} \times 100$ = 50%

61. (2) Time taken in walking one way + riding other way = 6 hours 35 minutes ... (i)
Time taken in riding both ways = 4 hours 35 minutes ...(ii)
By equation (i) × 2 – (ii),
2 × Time taken in walking one way
= 13 hours 10 minutes – 4 hours 35 minutes = 8 hours 35 minutes

62. (1) 12 men can complete the work in 36 days.
12 × 36 men can complete the work in 1 day.
Again,
18 women can complete the work in 60 days.
18 × 60 women can complete the work in 1 day.
Now, 12 × 36 men = 18 × 60 women
2 men = 5 women
Now, 8 men + 20 women = (4 × 5 + 20) women = 40 women
18 women complete the work in 60 days.

40 womens' 20 days' work = $\frac{40 \times 20}{18 \times 60} = \frac{20}{27}$

∴ Remaining work = $1 - \frac{20}{27} = \frac{7}{27}$

18 × 60 women do 1 work in 1 day.

1 woman does = $\frac{1}{18 \times 60}$ Work in 1 day

1 woman does in 4 days = $\frac{4}{18 \times 60} = \frac{1}{18 \times 15}$ Work

$\frac{1}{18 \times 15}$ work is done in 4 days by 1 woman

$\frac{7}{27}$ work is done in 4 days by = $\frac{18 \times 15 \times 7}{27}$ = 70 days

63. (2) Number of balls = 6 + 5 + 8 = 19 Exhaustive number of cases = Ways of selecting 4 balls out of 19 = ${}^{19}C_4 = \frac{19\times18\times17\times16}{1\times2\times3\times4} = 3876$

Favourable number of cases = Selecting 4 red balls or any two green balls out of the four =

$6c_4 + 5c_2 \times 14c_2 = \frac{6\times5\times4\times3}{1\times2\times3\times4} + \frac{5\times4}{2} \times \frac{14\times13}{2} = 15 + 910 = 925$

$\therefore$ Required probability = $\frac{925}{3876}$

64. (5) Required difference = $\left(\frac{7}{11}\times2 - \frac{4}{11}\times3\right)$

$= \frac{2}{11} \times 73689 = ₹\ 13398$

65. (2) Area of the square = 22 × 22 = 484 sq.cm

Circumference of circle = 484 cm

π × Dimater = 484

$\frac{22}{7}$ × Dimater = 484

Dimater = $\frac{484}{22} \times 7 = 154$ cm

Lenght of rectangle = 2 × 154 = 308 cm

2(lenght + breadht) = Perimeter of rectangle

2(308 + x) = 668 [Breadht = x (let)]

$308 + x = \frac{668}{2} = 334$

$x = 334 - 308 = 26$ cm

66. (2) I. $4x^2 - 32x + 63 = 0$

$4x^2 - 14x - 18x + 63 = 0$

$2x(2x - 7) - 9(2x - 7) = 0$

$(2x - 7)(2x - 9) = 0$

$x = \frac{7}{2}$ or $\frac{9}{2}$

II. $2y^2 - 11y + 15 = 0$

$2y^2 - 6y - 5y + 15 = 0$

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

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

$y = 3$ or $\frac{5}{2}$

Clearly, $x > y$

67. (2) I. $x^3 = (216)^{\frac{1}{3}\times 3} = 216$

$x = \sqrt[3]{216} = 6$

II. $6y^2 = 150$

$y^2 = \frac{150}{6} = 25$

$y = \pm 5$

Clearly, $x > y$

68. (1) I. $12x^2 + 17x + 6 = 0$

$12x^2 + 9x + 8x + 6 = 0$

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

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

$x = -\frac{3}{4}$ or $-\frac{2}{3}$

II. $6y^2 + 5y + 1 = 0$

$6y^2 + 2y + 3y + 1 = 0$

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

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

$y = -\frac{1}{3}$ or $-\frac{1}{2}$

Clearly, $x < y$

69. (3) I. $20x^2 + 9x + 1 = 0$

$20x^2 + 5x + 4x + 1 = 0$

$5x(4x + 1) + 1(4x + 1) = 0$

$(4x + 1)(5x + 1) = 0$

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

II. $30y^2 + 11y + 1 = 0$

$30y^2 + 6y + 5y + 1 = 0$

$6y(5y + 1) + 1(5y + 1) = 0$

$(5y + 1)(6y + 1) = 0$

$y = -\frac{1}{5}$ or $-\frac{1}{6}$

Clearly, $x \leq y$

70. (4) I. $x^2 + 17x + 72 = 0$

$x^2 + 8x + 9x + 72 = 0$

$x(x + 8) + 9(x + 8) = 0$

$(x + 9)(x + 8) = 0$

$x = -9$ or -8

II. $y^2 + 19y + 90 = 0$

$y^2 + 10y + 9y + 90 = 0$

$y(y + 10) + 9(y + 10) = 0$

$(y + 9)(y + 10) = 0$

$y = -9$ or -10

Clearly, $x \geq y$

IBPS PO SPECIAL PHASE -I MOCK TEST - 265 (ANSWER KEY)

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