IBPS PO SPECIAL PHASE - I MOCK TEST - 304 (SOLUTION)
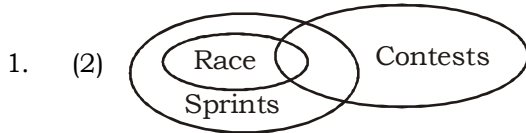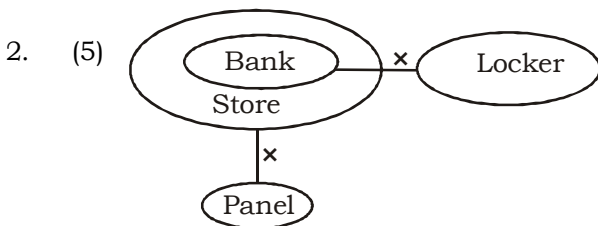
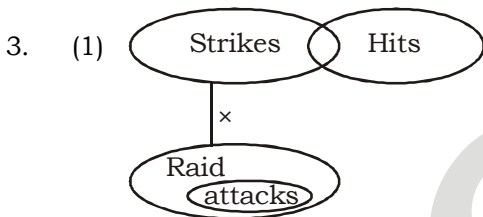**REASONING**

1. (2)

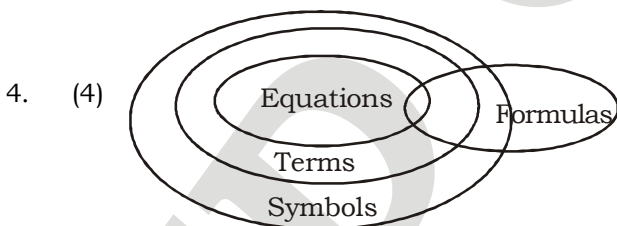
I. ✓ II. ×

2. (5)

I. × II. ✓

3. (1)
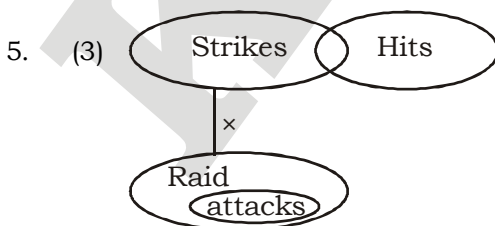

I. ✓ II. ✓

4. (4)

I. ✓ II. ×

5. (3)

I. ✓ II. ✓

6. (4) **Statements :**

$S \leq L \leq I = P > E > R$ …(i)

$L > Q$ …(ii)

From (i), we get

$S \leq P$ or $P \geq S$. Thus, conclusion I is true.

Again, $I > R$ is true. Hence both conclusion I and II are true.

7. (3) **Given statements :**

$G > R \geq E = A \leq T \leq S$ …(i)

$D \leq A \leq J$ …(ii)

Combining (i) and (ii), we get

$D \leq A \leq T$

Thus, $D \leq T$ or $T \geq D$. Hence I is true. Again, we can't compare R and S. Hence II ($R > S$) is not true.

8. (4) **Given statements :**

$A \geq B > C \leq D \leq E < F$

Thus, we can't compare A and E. Hence I ($A \leq E$) is not true.

Again, $C \geq F$ is true. Hence II is true.

9. (1) **Given statements :**

$G > R \geq E = A < T < S$ …(i)

$D \leq A \leq J$ …(ii)

Combining (i) and (ii), we get

$G > R \geq E = A \leq J$

Thus, we can't compare G and J. Hence neither I ($J > G$) nor II ($J = G$) is true.
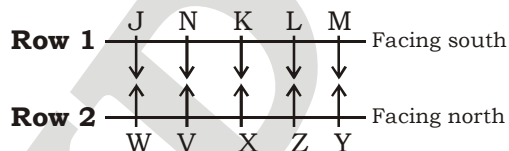
10. (2) **Given statements :**

$S < L < I = P \geq E > R$ …(i)

$L > Q$ …(ii)

Combining (i) and (ii), we get

$Q < L < I = P \geq E$

Thus, we can't compare E and Q. Hence II ($E \geq Q$) is not true. Again, we can't compare L and R. Hence I ($L < R$) is not true.

(11–15) :

	J	N	K	L	M
Row 1						Facing south

Row 2						Facing north
	W	V	X	Z	Y

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

(16–20) :

Person	Game	T-shirt	Mobile
U	Carrom	Blue	Moto G
V	Kho-Kho	Yellow	Lenovo
W	Chess	Violet	Lenovo
X	Hockey	Red	Micromax
Y	Tennis	Orange	Moto G
Z	Badminton	Green	Micromax

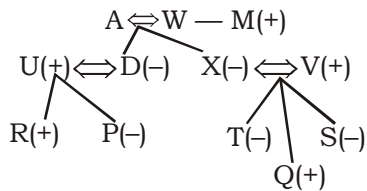16. (2)   17. (1)   18. (5)   19. (2)   20. (3)

(21–26) :
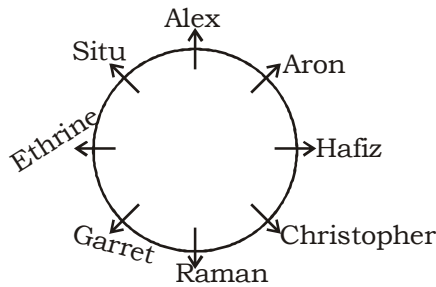
21. (1)　　22. (2)　　23. (4)　　24. (3)　　25. (2)　　26. (2)

(27–31) :

Family tree

27. (2)　　28. (1)　　29. (3)　　30. (4)　　31. (3)

(32-35) :

32. (5)　better ⇒ fin

　　　and ⇒ fn

　　　and ⇒ ki

　　　The code for 'improved' may be 'yz'.

33. (4)　gm ⇒ a

34. (1)　| must | bring | change | → op | la　tu |

　　　Now,

　　　bring ⇒ op

　　　here ⇒ dr

　　　The code for 'peace' may be 'ov'.

35. (2)　than ⇒ cx/ qa/rm

MATHS

36. (4)　? ≈ 466 + 765 − 212 = 1019 ≈ 1020

37. (1)　$? \approx \dfrac{150 \times 150}{100} + 150 = 225 + 150 = 375$

38. (4)　$? \approx \dfrac{3000 \times 750}{1000} - 1400 = 2250 - 1400 = 850$

39. (3) ? $\approx$ 51 – 34 + 21= 38 $\approx$ 40

40. (5) ? $\approx \dfrac{900}{30} \times \dfrac{90}{300} \times \dfrac{600}{50}$ = 108 $\approx$ 110

41. (3) Number of employees in Teaching profession = 26800 $\times \dfrac{15}{100}$ = 4020

    Number of employees in Medical profession = 26800 $\times \dfrac{27}{100}$ = 7236

    Total number of employees = 4020 + 7336 =11256

    Number of employees in Management profession = 26800 $\times \dfrac{17}{100}$ = ₹ 4556

    ∴ Reqd difference = 11256 – 4556 = 6700

    Quicker Method:

    Reqd difference = (15 + 27 – 17)% of 26800 = 25% of 26800 = 6700

42. (5) Total number of employees in Management profession = 26800 $\times \dfrac{17}{100}$ = 4556

    Number of female employees in Management profession = 4556 $\times \dfrac{3}{4}$ = 3417

    ∴ Required number of male employees in Management profession = 4556 – 3417 = 1139

43. (2) Total number of employees from Film Production = 26800 $\times \dfrac{19}{100}$ = 5092

    Now, number of employees from Film Production who went on strike = 5092 $\times \dfrac{25}{100}$ = 1273

    ∴ Number of employees who have not participated in strike = 5092 – 1273 = 3819

    Quicker Method:

    Required number of employees who have not participated in strike = 26800 $\times \dfrac{75}{100}$ = 3819

44. (4) Required number of employees who participated in both Engineering and

    Industries professions = 26800 $\times \left(\dfrac{9+13}{100}\right)$ = 268 × 22 = 5896

45. (1) Total number of teachers = 26800 $\times \dfrac{15}{100}$ = 4020

    Number of teachers who are not permanent = 4020 $\times \dfrac{3}{5}$ = 804 × 3 = 2412

    ∴ Number of teachers who are permanent = 4020 – 2412 = 1608

46. (5) The given number series is based on the following pattern :

    7413 + 9 × 1 = 7422

    7422 + 9 × 2 = 7440

    7440 + 9 × 3 = **7467**

    7467 + 9 × 4 = 7503

    7503 + 9 × 5 = 7548

    Hence, 7467 will replace the question mark.

47. (4) The given number series is based on the following pattern :

$4 = 2^2$; $16 = 4^2$;

$36 = 6^2$; $64 = 8^2$;

$100 = 10^2$.

$\therefore$? $= 12^2 = $ **144**

Hence, 144 will replace the question mark.

48. (1) The given number series is based on the following pattern:

$12 \times 3 - 3 = 33$

$33 \times 3 - 3 = 96$

$96 \times 3 - 3 = $ **285**

$285 \times 3 - 3 = 852$

Hence, 285 will replace the question mark.

49. (3) The given number series is based on the following pattern :

$70000 \div 5 = 14000$

$14000 \div 5 = 2800$

$2800 \div 5 = $ **560**

$560 \div 5 = 112$

$112 \div 5 = 22.4$

Hence, 560 will replace the question mark.

50. (2) The given number series is based on the following pattern :

$102 - 3 = 99$

$99 + 5 = 104$

$104 - 7 = 97$

$97 + 9 = 106$

$106 - 11 = $ **95**

Hence, 95 will replace the question mark.

51. (3) Selling price of mixture = ₹ 20

Cost price of mixture = $\dfrac{100}{125} \times 20 = ₹16$

By the rule of alligation,

```
25          0
      16
16          9
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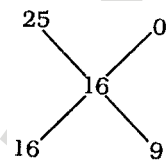
So, required ratio = 16 : 9

52. (2) Let the total number of boys and girls be B and G respectively.

Total score of boys = 71 B

Total score of girls = 73G

Total score of the class = 71.8 (B+G)

71 B + 73 G = 71.8 (B+G)

$0.8B = 1.2G \Rightarrow \dfrac{B}{G} = \dfrac{1.2}{0.8} = \dfrac{3}{2} = 3 : 2$

53. (2) Let the sum be ₹ x.

$$x\left(1+\frac{10}{100}\right)^4 - x\left(1+\frac{20}{100}\right)^2 = 482$$

$$x\left(\frac{11}{10}\right)^4 - x\left(\frac{6}{5}\right)^2 = 482$$

$x(1.4641 - 1.44) = 482$

$0.0241x = 482$

$$x = \frac{482}{0.0241} = ₹\ 20000$$

54. (4) Let the sides of the cuboid be a, b and c.

$ab = 12$ sq. cm.

$bc = 20$ sq.cm.

$ac = 15$ sq.cm.

Volume of cuboid = abc

$$= \sqrt{a^2 b^2 c^2} = \sqrt{12 \times 20 \times 15} = \sqrt{3600} = 60 \text{ cu.cm.}$$

55. (3) Let the two digit number = $10y + x$.

According to the question,

$10y + x = 3(x + y)$

$10y + x = 3x + 3y$

$10y - 3y + x - 3x = 0$

$7y - 2x = 0$ ....(i)

and $10y + x + 45 = 10x + y$

$9x - 9y = 45$

$9(x - y) = 45$

$$x - y = \frac{45}{9} = 5$$

$x = y + 5$ ....(ii)

Now, $7y - 2x = 0$

$7y - 2(y + 5) = 0$ [From equation (ii)]

$7y - 2y - 10 = 0$

$5y = 10$

$$y = \frac{10}{5} = 2$$

From equation (ii),

$x = 2 + 5 = 7$

∴ Number = $2 \times 10 + 7 = 27$

Note : This problem can be easily solved by hit and trial method out of the given alternatives.

56. (3) Average = $\dfrac{210 + 204 + 231 + 231}{4} = \dfrac{876}{4} = 219$

57. (1) Total number of girls = 70 + 117 + 54 + 129 + 136 + 176 = 682

58. (5) Different = 225 − 225 = 0

59. (4) Let the total number of students be x.

Boys = $\dfrac{44x}{100}$ and girls = $\dfrac{56x}{100}$

Different = $\dfrac{12x}{100}$ = 30

x = $\dfrac{3000}{12}$ = 250

Boys = $\dfrac{44}{100}$ × 250 = 110

Similarly,

Total students = $\dfrac{132 \times 100}{40}$ = 330

Girls = $\dfrac{30 \times 330}{100}$ = 99

∴ Ratio = $\dfrac{110}{99}$ = $\dfrac{10}{9}$ = 10 : 9

60. (4) Students from F_{1986} = 375
Students from C_{1986} = 250

% = $\dfrac{375}{250}$ × 100 = 150%

61. (2) $\dfrac{A \times 90}{100}$ = $\dfrac{30 \times B}{100}$

B = 3A

$\dfrac{A \times x}{100}$ = 3A

x = 3 × 100 = 300

62. (2) By question, number of ways of out comes when two dice are thrown = n(s) = 36 and possible cases of event when the sum of numbers on two dice is a prime numbers, are

(1, 1), (1, 2), (1, 4), (1, 6), (2,1), (2, 3), (2, 5), (3, 2), (3, 4), (4, 1), (4, 3), (5, 2),   (5, 6), (6, 1), (6, 5)

Number of events = n(A) = 15

Hence, required probability = $\dfrac{n(A)}{n(S)} = \dfrac{15}{36} = \dfrac{5}{12}$

63. (1) According to the question,

SP of 12 marbles = ₹ 1, loss = 20%

CP of 12 marbles = ₹ $\dfrac{1}{0.8}$ = ₹ 1.25

Now, SP of 12 marbles to gain of 20%

CP × 1.2 = 1.25 × 1.2 = ₹ 1.5

It means in order to gain 20%, he should sell 12 marbles for ₹ 1.5

Thus, he should sell $\dfrac{12}{1.5}$ = 8 marbles for a rupee.

64. (3) If the C.P. of table be ₹ x.

then

$$\frac{400 - 350}{x} \times 100 = 5$$

$50 \times 100 = 5x$

$x = ₹\ 1000$

65. (3) Let the work is completed in x days.

Work done by (A + B) in 1 day = $\dfrac{1}{10}$ work

Work done by (B + C) in 1 day = $\dfrac{1}{18}$ work

A's 5 day's work + B's 10 day's work + C's 15 day's work = 1

(A + B)'s 5 day's work + (B + C)'s 5 day's work + C's 10 day's work = 1

$$\frac{5}{10} + \frac{5}{18} - \frac{10}{x} = 1$$

$x = 45$

66. (5) I. $\dfrac{15}{\sqrt{x}} - \dfrac{9}{\sqrt{x}} = \sqrt{x}$

$\dfrac{6}{\sqrt{x}} = \sqrt{x} \Rightarrow x = 6$

II. $y^{10} = (36)^5 = (6^2)^5 = 6^{10}$

$y = 6$

Clearly $x = y$

67. (1) I. $5x + 2y = 96$

II. $3(7x + 5y) = 489$

$7x + 5y = 489 \div 3 = 163$

By equation I × 5 – equation II × 2,

$25x + 10y - 14x - 10y = 480 - 326$

$11x = 154$

$$x = \frac{154}{11}$$

$x = 14$

From equation I,

$14 \times 5 + 2y = 96$

$2y = 96 - 70 = 26$

$y = 13$

Clearly, $x > y$

68. (5) I. $(441)^{\frac{1}{2}} \cdot x^2 - 111 = 225$

$21x^2 = 225 + 111 = 336$

$x^2 = \dfrac{336}{21} = 16$

$x = \pm 4$

II. $\sqrt{121}\, y^2 + (6)^3 = 260$

$11y^2 + 216 = 260$

$11y^2 = 260 - 216 = 44$

$y^2 = \dfrac{44}{11} = 4$

$y = \pm 2$

69. (3) I. $17x = 169 + 14 + 25 + 4x$

$13x = 208$

$x = \dfrac{208}{13} = 16$

II. $9y - 345 = 4y - 260$

$9y - 4y = 345 - 260$

$5y = 85$

$y = 17$

Clearly, $x < y$

70. (3) I. $3x^2 - 13x + 14 = 0$

$3x^2 - 7x - 6x + 14 = 0$

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

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

$x = 2$ or $\dfrac{7}{3}$

II. $y^2 - 7y + 12 = 0$

$y^2 - 4y - 3y + 12 = 0$

$y\,(y - 4) - 3\,(y - 4) = 0$

$(y - 3)\,(y - 4) = 0$

$y = 3$ or 4

Clearly, $x < y$

ENGLISH LANGUAGE

71. (5) Refer the second-last sentence of the second paragraph.
72. (1) Refer "........ what we should do when robots do arrive
73. (4) The inventor thought the imaginary death rays to have been existing already.
74. (2) Refer the opening sentences of the third paragraph.
75. (5) These heroes would not have achieved their feat without their robot companions.
96. (3) Replace 'appreciating' with 'appreciated'. (The verb coming after 'and' or 'but' takes the same form as its counterpart before 'and' or 'but' (admired)
97. (1) Replace 'had' with 'would have' as the sentence is past conditional (if)-
98. (1) Place 'not only' after 'the judges'. (Position of not only-but also)
99. (3) Replace 'indefinite' with 'indefinitely' as it is qualifying a verb.

VOCABULARIES

Words	Meaning in English	Meaning in Hindi
Speculation	The forming of a theory or conjecture without firm evidence	परिकल्पना
Extensive	Covering or affecting a large area.	व्यापक
Vivid	Clear images in the mind.	सुस्पष्ट
Obscure	Not discovered or known about; uncertain.	अस्पष्ट
Paraphernalia	Miscellaneous articles, especially the equipment activity. needed for a particular.	सामग्री
Misleading	Giving the wrong idea or impression.	भ्रामक
Province	A principal administrative division of certain countries or empires.	प्रांत
Elaborate	Involving many carefully arranged parts or details; detailed and complicated in design and planning.	विस्तृत
Prototypical	Connected with the first design of something from which other forms are copied or developed	मूल प्ररूप संबंधी
Candid	Truthful and straightforward; frank.	खरा
Abated	Become less intense	कम करना
Trivialised	Make (something) seem less important, significant, or complex than it really is.	महत्वहीन बनाना
Mitigate	Make less severe, serious, or painful	कम करना
Acquitted	Free (someone) from a criminal charge by a verdict of not guilty.	बरी करना

IBPS PO SPECIAL PHASE - I MOCK TEST - 304 (ANSWER KEY)

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