IBPS PO SPECIAL PHASE -I MOCK TEST - 267 (SOLUTION)

REASONING

1. (4) **Given statements :**
$H \geq W < M$ …(i)
$N = P > H$ …(ii)
$K \leq L < N$ …(iii)
Combining all these statements, we get
$K \leq L < N = P > H \geq W < M$
Thus, $N > W$ is true
$M \geq N$ is not true.
$K = H$ is not true.
Again, $L < P$ or $P > L$ is true.
Hence only I and IV are true.

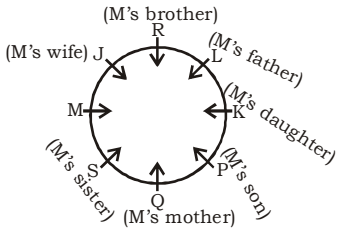
2. (2) **Given statements :**
$G = C \geq P = T$ …(i)
$U \leq N = J < G$ …(ii)
Combining both statements, we get
$U \leq N = J < G = C \geq P = T$
Thus, $U \leq P$ is not true.
Again, $N < G$ or $G > N$ is true.
$G \geq T$ is true.
$U < G$ is true.
Hence only II, III and IV are true.

3. (2) **Given statements :**
$R \leq S < Q = P$ …(i)
$T = U > E \geq P$ …(ii)
Combining both statements, we get
$R \leq S < Q = P \leq E < U = T$
Thus, $S > T$ is not true.
$E < Q$ is not true.
$S < U$ is true.
$R < T$ or $T > R$ is true.
Hence, only III and IV are true

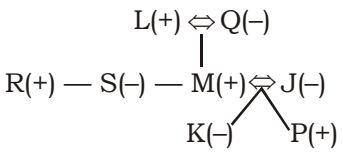
4. (5) **Given statements :**
$C \geq D = E < G$ …(i)
$L \geq T > N = G$ …(ii)
Combining both statements, we get
$C \geq D = E < G = N < T \leq L$
Thus, $D < T$ or $T > D$ is true.
$E < L$ or $L > E$ true.
$C \geq T$ is not true.
$D \leq E$ is not true.
Hence, only I and II are true

5. (4) **Given statements :**
$W \leq V = Q < R$
$P > S = T \geq W$
Combining both statements, we get
$P > S = T \geq W \leq V = Q < R$
Thus, $P \leq Q$ is not true.
$S \leq V$ is not true.
$R \leq T$ is not true.
$P > V$ is not true.
Hence, none is true.

(6–10) :

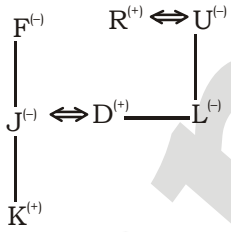


Family tree



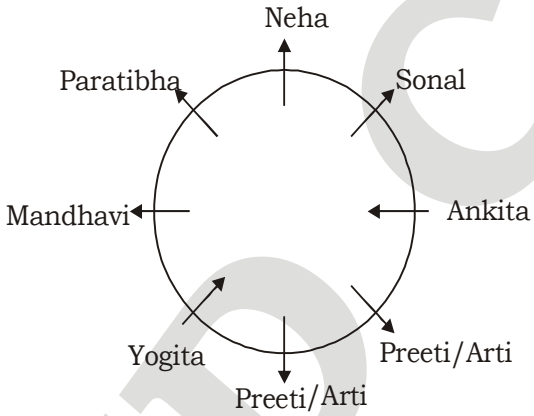
6. (2) 7. (3) 8. (5)
9. (3) 10. (5)

(11–12) :



11. (4)
12. (3)

Solution (13 – 17) :



13. (2) 14. (2) 15. (1)
16. (5) 17. (2)
18. (1) 'P' lives on the Top floor of building.
19. (1) 'Q' lives on the Second floor.
20. (2) 'RSP' do not follow any symmetry of arrangement.
21. (5) None as no one lives below's. S is on first floor.
22. (3) Four floors are between 'T' & 'Q'.

(23-27):

Student	College	Subject
P(+)	B	MBA
Q(–)	A	BCA
R(–)	B	Medicine
S(+)	A	Journalism
T(+)	A	BCA
W(+)	C	Aviation
Z(–)	C	Medicine

23. (5) RZ 24. (1) 25. (1)
26. (4) 27. (2)

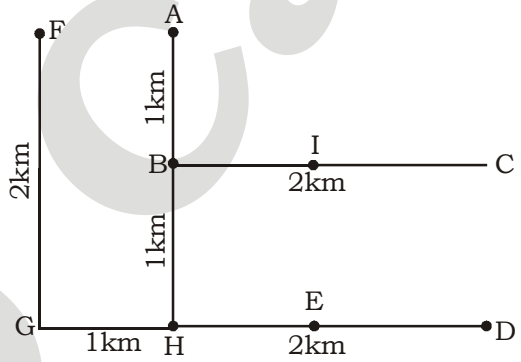
(28-32) :

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

28. (2) 29. (2) 30. (2)
31. (1) 32. (2)

(33-35) :



33. (3) Required distance = GH + HE = 1 + 1
= 2km
34. (1) 1 km
35. (1) 1 km

MATHS

36. (4) $? \approx 1548 + 3065 \times \frac{1}{15}$
$= 1548 + 204.33 = 1752.33 \approx 1750$

37. (5) $\approx 250 \times \frac{32}{5} \approx 2400 \times ?$

$\Rightarrow ? \approx \frac{1600}{2400} = \frac{2}{3}$

38. (1) $? = \frac{695 \times 39 \times 10}{100} = 2710.5 \approx 2800$

39. (3) $6 \times 1.414 + 14.275 = 196.35 \times ?$

$\Rightarrow 22.759 = 196.35 \times ?$

$\Rightarrow ? = \frac{22.759}{196.35} \approx \frac{1}{8}$

40. (3) $? \approx 1525 \times 20 + 495$

$= 30500 + 495 = 30995 \approx 31000$

(41–50) :

41. (2) Required ratio $= 200 \times \frac{120}{100} : 320$

$= 240 : 320$

$= 3 : 4$

42. (4) Total number of people travelled by B on Monday and Tuesday $= 200 + 170 = 370$ and total number of people travelled by A on Saterday and Sunday $= 350 + 270 = 620$

$\therefore$ Required difference $= 620 - 370$

$= 250$

43. (5) Required average $= \frac{240 + 210 + 140 + 230}{4}$

$= \frac{820}{4} = 210$

44. (2) Required % $= \left(\frac{350 - 210}{350} \times 100\right)\%$

$= \left(\frac{140}{350} \times 100\right)\%$

$= 40\%$

45. (2) Required % $= \left(\frac{580 - 280}{260} \times 100\right)\%$

$= 123.07\%$

$\approx 123\%$

46. (5) The pattern of the number series is :

$3 + 7^2 = 3 + 49 = 52$

$52 + 6^2 = 52 + 36 = 88$

$88 + 5^2 = 88 + 25 = 113$

$113 + 4^2 = 113 + 16 = 129$

$129 + 3^2 = 129 + 9 =$ **138**

47. (3) The pattern of the number series is :

$2 \times 1 + 1 = 52$

$3 \times 2 + 2 = 8$

$8 \times 3 + 3 =$ **27**

$27 \times 4 + 4 = 112$

$112 \times 5 + 5 = 565$

48. (1) The pattern of the number series is :

$6 \times 0.5 + 1 = 4$

$4 \times 1.5 + 2 = 8$

$8 \times 2.5 + 3 = 23$

$23 \times 3.5 + 4 =$ **84.5**

$84.5 \times 4.5 + 5 = 385.25$

49. (4) The pattern of the number series is :
$2^3 = 8$; $4^3 = 64$
$6^3 = 216$; $8^3 = 512$
$10^3 = 1000$; **$12^3 = 1728$**

50. (2) The pattern of the number series is :
$5 \times 1 + 1 \times 6 = 11$
$11 \times 2 + 2 \times 5 = 32$
$32 \times 3 + 3 \times 4 = 108$
$108 \times 4 + 4 \times 3 = 444$
$444 \times 5 + 5 \times 2 =$ **2230**

51. (3) Suppose a container contains x units of liquid from which y units are taken out and replaced by water. After n operations, the quantity of pure liquid

$= x\left(1-\frac{y}{x}\right)^n$ units

Remaining water

$= 30\left(1-\frac{3}{30}\right)^2$

$= \frac{30\times 9\times 9}{100} = 24.3$ litres

52. (3) Let there were x students, then contribution of one student = $\frac{500}{x}$

Contribution of each students where 5 of them have left = $\frac{500}{(x-5)}$

Given, $\frac{500}{(x-5)} - \frac{500}{x} = 5$

using options, we find $x = 25$ satisfies the equation. Therefore, number of students who attended the picnic
$= (25 - 5) = 20$.

53. (3) **Tricky approach**
Let the number be $13x$ and $13y$ where x and y are prime to each other.
$\therefore\ 13x \times 13y = 2028$

$\Rightarrow xy = \frac{2028}{13\times 13} = 12 = 3 \times 4$

$\therefore$ Numbers = $13 \times 3 = 39$ and $13 \times 4 = 52$
$\therefore$ Sum of numbers = $39 + 52 = 91$

54. (3) Let the length, breadth and height of the cuboid be a, b and c cm respectively.
$2(ab + bc + ca) = 22$
and, $4(a + b + c) = 24$
$\Rightarrow a + b + c = 6$
$\Rightarrow (a + b + c)^2 = a^2 + b^2 + c^2 + 2ab + 2ac + 2bc$
$\Rightarrow 36 = a^2 + b^2 + c^2 + 22$
$\Rightarrow a^2 + b^2 + c^2 = 14$

$\Rightarrow \sqrt{a^2+b^2+c^2} = \sqrt{14}$

= Diagonal of cuboid

55. (1) Let the number be $(765x + 42)$.
When this numbe is divided by 17, then quotient will be $(45x + 2)$ and remainder will be 8.

56. (1) Required average

$= \frac{3297+2523+2860+2660+2770+2665+2899}{7}$

$= \frac{19674}{7}$

= \$ 2810.57 million

$\approx$ \$ 2811 million

57. (2) Required average value

$= \frac{3034+3210+3106+3200+2984}{5}$

$= \frac{15534}{5}$

= \$ 3106.8 million

58. (5) Required % $= \frac{(2860-2523)}{2523} \times 100\%$

$= \frac{337}{2523} \times 100\%$

= 13.35%

59. (5) Required change in trade gap

$= \frac{(2770-2665)}{2770} \times 100\%$

= 3.79% decrease

60. (1) Required difference
= (3464+3034+3210) – (3106 + 3200 + 2984)
= 9708– 9290 = 418

61. (1) Let their initial investments be Rs. x, Rs. $3x$ and Rs. $5x$ respectively.
Then, A : B : C

$= (x \times 4 + 2x \times 8) : (3x \times 4 + \frac{3x}{2} \times 8)$

$: (5x \times 4 + \frac{5x}{2} \times 8)$

$= (4x + 16x) : (12x + 12x) : (20x + 20x)$
$= 20x : 24x : 40x = 5 : 6 : 10$

62. (4)

	Water	Pulp
Fresh grapes	$4x$	x
Dry grapes	y	$9y$

Pulp in dry grapes $= \frac{250 \times 90}{100}$ = 225 kg.

$\therefore$ $x = 9y$ = 225 kg.
$\therefore$ Weight of fresh grapes = $5x$

= 5 × 225 = 1225 kg.

63. (2) According to question,

(2M + 7C)'s 1 day work = $\frac{1}{4}$

It means that 1 work will be finished by (8M + 28C)

Again, (4M + 4C)'s 1 day's work = $\frac{1}{3}$

or 1 work will be completed by 12M + 12C

$\therefore$ 8M + 28C = 12M + 12C

$\Rightarrow$ M = 4C

$\therefore$ 4M + 4C = 5M

Since, 5 M complete a work in 3 days. Then, 1 M will complete it in 15 days.

64. (1) Sum lent at 6% rate of interest = ₹ x

S.I. = 19000 – 16800

= ₹ 2200

$\therefore \quad \frac{x \times 6 \times 2}{100} + \frac{(16800 - x) \times 8 \times 2}{100}$ = ₹ 2200

$\Rightarrow 12x + 16800 \times 16 - 16x = 220000$

$\Rightarrow 4x = 268800 - 220000$

$\Rightarrow 4x = 48800$

$\Rightarrow x$ = ₹ 12200

65. (5) Let the original cost price be ₹ 100.

Then, profit = ₹ 320 and SP = ₹ 420

New CP = ₹ 125

$\therefore$ New profit = ₹ 295

Required percentage

$= \left(\frac{295}{420} \times 100\right)\% = 70.23\%$

66. (1) I. $x^2 + 5x + 6 = 0$

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

$\Rightarrow x(x + 2) + 3(x + 2) = 0$

$\Rightarrow (x + 3)(x + 2) = 0$

$\Rightarrow x = -3$ or -2

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

$\Rightarrow y^2 + 4y + 3y + 12 = 0$

$\Rightarrow y(y + 4) + 3(y + 4) = 0$

$\Rightarrow (y + 3)(y + 4) = 0$

$\Rightarrow y = -3$ or -4

Clearly $x \geq y$

67. (4) I. $x^2 - 9x + 20 = 0$

$\Rightarrow x^2 - 5x - 4x + 20 = 0$

$\Rightarrow x(x - 5) - 4(x - 5) = 0$

$\Rightarrow (x - 4)(x - 5) = 0$

$\Rightarrow x = 4$ or 5

II. $y^2 - 13y + 42 = 0$

$\Rightarrow y^2 - 7y - 6y + 42 = 0$

$\Rightarrow y(y - 7) - 6(y - 7) = 0$

$\Rightarrow (y - 6)(y - 7) = 0$

$\Rightarrow y = 6$ or 7

Clearly $x < y$

68. (4) $2x + 3y = 14$ I
$4x + 2y = 16$ II
By equation (I) × 2 – equation II,
$4x + 6y - 4x - 2y = 28 - 16$
$\Rightarrow 4y = 12 \Rightarrow y = 3$
From equation I,
$2x + 3 \times 3 = 14$
$\Rightarrow 2x = 14 - 9 = 5 \Rightarrow x = \frac{5}{2}$
Clearly $x < y$

69. (5) I. $x = \sqrt{625} = 25$
II. $y^2 = 676$
$\therefore y = \pm 26$

70. (4) I. $x^2 + 4x + 4 = 0$
$(x + 2)^2 = 0 \Rightarrow x = -2$
II. $y^2 - 8y + 16 = 0$
$\Rightarrow (y - 4)^2 = 0$
$\Rightarrow y = 4$
Clearly $x < y$

VOCABULARIES

Words	Meaning in English	Meaning in Hindi
Stature	a person's natural height.	ऊँचाई
Plunged	jump or dive quickly and energetically.	गोता लगाना, डूबना
Optimistic	hopeful and confident about the future.	आशावादी
Buoyant	able or apt to stay afloat or rise to the top of a liquid or gas.	प्रसन्नचित्त
Briskly	quickly	तीव्रता से, जल्दी-जल्दी
Sceptics	a person inclined to question or doubt all accepted opinions.	संदेहवादी
Spurred	urge (a horse) forward by digging one's spurs into its sides.	उकसाना, उत्तेजित करना
Boosted	help or encourage (something) to increase or improve.	बढ़ावा
Vigorously	in a way that involves physical strength, effort, or energy; strenuously.	उत्साह सहित
Deflated	let air or gas out of (a tire, balloon, or similar object).	खंडन करना
Haphazard	lacking any obvious principle of organization.	बेतरबीत
discarded	get rid of (someone or something) as no longer useful or desirable.	ठुकराना, नामंजूर करना
Peanuts	the oval seed of a South American plant, widely roasted and salted and eaten as a snack	मूंगफली

IBPS PO SPECIAL PHASE -I MOCK TEST - 267 (ANSWER KEY)

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