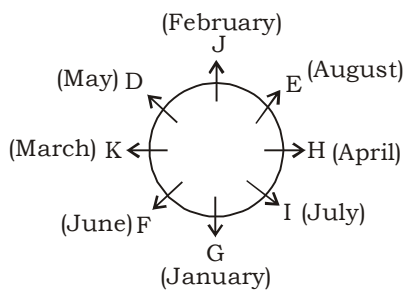## IBPS PO SPECIAL PHASE-I MOCK TEST- 275 (SOLUTION)

### REASONING
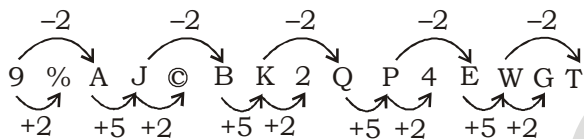
**(1-5):**



1. 2     2. 5     3. 3     4. 1     5. 3

**(6-7):**

6.2; Sixth to the right of 14th from the right end is (14 – 6 =) 8th from the right end, ie F.

7.1;



**Alternate Approach**

Each element move; three r aces forward from the corresponding element in the previous group .

8.3; | Number | Consonant | Symbol/Number/Vowel |

ie 9B%, 4W@, 1Q©

Thus there are three such consonants in the given arrangement

9.4; | Consonant | Symbol | Consonant |

ie Q©K, W@G, 1Q©

Thus, there are three such symbols.

10.2; | Symbol | Number | Consonant |

ie ✡9B, %1Q

Thus, there are two such numbers.

**(11-15):**

always speak the truth → na pi ta ke ...(i) always seek knowledge → ti na bi (ii) knowledge for truth → si ta ti     ...(iii)

never seek violence → li bi sa ...(iv)

**From (i) and (ii),** always → na     ...(v)

**From (i) and (iii),** truth → ta     ...(vi)

**From (i), (v) and (vi),** speak/the → pi/ke     ...(vii)

**From (ii) and (iii),** knowledge → ti ...(viii)

**From (ii) and (iv),** seek → bi     ...(ix)

**From (iii), (vi) and (viii),** for → si ...(x)

**From (iv) and (ix),** never/violence $\rightarrow$ li/sa ...(xi)

11. 2    12. 3    13. 4    14. 2    15. 3

16.1; **Given statements:**

$V > P \geq Q$        ...(i)

$S = R > Q$        ...(ii)

$U > R$        ...(iii)

Combining all these statements, we get

$U > S = R > Q \leq P \leq V$

Thus, U > O is true.

Hence I is true.

Again, we can't compare S and P.

Hence II (S $\geq$ P) is not true.

(**17-18):**

**Given statements:**

$L < M > N$        ...(i)

$Q \geq P < O$        ...(ii)

$L < S$        ...(iii)

$O = N$        ...(iv)

Check for conclusion I.

From (i) and (iv), we get

M > N = O. Thus M > O is true.

Hence I is true.

**Cheek for conclusion II.**

**From (ii) and (iv), we get,**

P < O = N Thus, P < N or N > P is true.

But conclusion II (N < P) is not true.

18.4; Check for conclusion I.

From (ii) and (iv), we get $Q \geq P < O = N$

Thus, we can't compare Q and N.

Hence I (Q > N) is not true.

Check for conclusion II.

From (i), (ii) and (iv),

we get L < M > N = O > P

We can't compare P and L.

Hence II (P < L) is not true.

19.2; **Given statements:**

$B > H = P$        ...(i)

$A > C > D \geq P$        ...(ii)

Combining both statements, we get

$A > C > D \geq P = H < B$

Thus, we can't compare A and B.

Hence I (A > B) is not true.

Again, C > H is true.

Hence II is true.

**20.4; Given statements:**

$A \geq B < C$ ...(i)

$P > Q = R \geq N = C$ ...(ii)

Combining both statements, we get

$P > Q = R \geq N = C > B \leq A$

Thus, $Q \geq C$ is true.
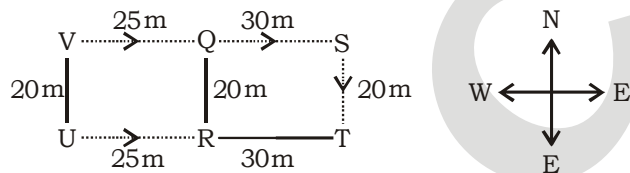
Hence I ($C \geq Q$) is not true.

Again, $P > B$ is true.

But II ($P \geq B$) is not true.

**(21-25):**

| Person | School | Subject |
|--------|--------|---------|
| A(+) | DPS | English |
| B(+) | Bal Bhawan | Hindi |
| C(+) | St Francis | Maths |
| D(−) | Bal Bhawan | Hindi |
| E(−) | St Francis | Computer |
| F(−) | DPS | Computer |
| H(+) | Bal Bhawan | Gk |

21. 4     22. 1     23. 3     24. 3     25. 3

**(26 −27) :**



26. (3) SV = VQ + SQ = 25 + 30 = 55m

27. (2) Northeast

**(28– 30):**

| Floor | Person |
|-------|--------|
| 8 | Q |
| 7 | P |
| 6 | Z |
| 5 | O |
| 4 | X |
| 3 | Y/N |
| 2 | M |
| 1 | N/Y |

28. (5)          29. (3)          30. (1)

31. (3)  P  A  I  N  T  E  D

**(32–35) :**

```
── H
── N/F
── C
── A
── L
── K
── O
── B
── M
── D
── E
── N/F
```

32. (4)        33. (5)        34. (1)

35. (5)

## MATHS

36.5;  $? \times 4.80 = 5836 - (2465 \div 49.3)\%$ of 6872

= 5836 – 50% of 6872

$= 5836 - \dfrac{1}{2} \times 6872 - 5836 - 3454 = 2400$

$\therefore\ ? = \dfrac{2400}{4.80} = 500$

37.2;  **Solving by breaking method:**

?% of 560 = 500 - (100% of 260 + 25% of 260) = 500 - (260 + 65) = 500 - 325 = 175

or, ? × 5.60 = 175

$\therefore\ ? = \dfrac{17500}{560} = \dfrac{1750}{56} = \dfrac{125}{4} = 31.25$

38. 2;  ? × 4.5 = 7292 – (400% of 650 + 30% of 650) + (20% of 2220)

= 7292 - (2600 + 195) - 444

= 7736 - 2795 = 4941

$\therefore\ (?) = \dfrac{4941}{4.5} = \dfrac{49410}{45} = \dfrac{5490}{5} = 1098$

39.3;  $(?)^2 = 1.4 \times 625 + 4.2 \div 0.7 + 325 \times 9.8 + 159 = 875 + 6 + 3185 + 159 = 4225$

$\therefore\ ? = \sqrt{4225} = 65$

40.1;  $? \times 1.60 = \dfrac{1}{2} \times 274 - 45 \times 1.8$

= 137– 81 = 56

$\therefore\ ? = \dfrac{56}{1.6} = 35$

41.5; Reqd difference

= 50% of 1650 - 57% of 1200

= $\frac{1}{2}$ × 1650 – 57 × 12 = 825 – 684 = 141

42. 4; Reqd ratio = $\dfrac{\dfrac{935}{55} \times 45}{50\% \, of \, 1650}$

= $\dfrac{935 \times 45}{55 \times 825}$ = $\dfrac{17 \times 3}{55}$ = 51 : 55

43. 4; Reqd average = $\dfrac{1}{5}$ {900 × 0.6 + 1200 × 0.43 + 660 + 960 × 0.7 + 627 }

= $\dfrac{1}{5}$ {540 + 516 + 660 + 672 + 627}

= $\dfrac{3015}{5}$ = 603

44. 1; Reqd sum = 840 × 0.60 + 1650 × 0.5 + 1200 × 0.55 = 504 + 825 + 660 = 1989

45. 3; Reqd number = 900 × $\dfrac{120}{100} \times \dfrac{55}{100}$ = 594

46. 2; The series follows:

Numerator = 2 × Denominator + 4

So, $\dfrac{76}{35}$ should be replaced by $\dfrac{35 \times 2 + 4}{35}$

= $\dfrac{74}{35}$

47. 3; The series is $(77)^2$, $(70)^2$, $(84)^J$, $(63)^2$, $(91)^2$, $(56)^2$, ...

5929. 4900, 7056, 3969, 8281, 3136

Hence there should be 5929 in place of **5930.**

48. 4; The series is

```
      +27     +28     +55     +83     +138
   ┌──────┐┌──────┐┌──────┐┌──────┐┌──────┐
  28     55     83    138    221    359
```

Hence there should be 359 in place of **360.**

49. 1; The series is 85 × 1 + 3 = 88.

88 × 2 + 6 = 182,  182 × 3 + 9 = **555,**

555 × 4 + 12 = 2232,

2232 × 5 + 15 = 11175, .....

Hence there should be 555 in place of **550.**

50. 2; Move from right to left. The series is -16. -32, -64. -128, -256, ...

Hence there should be 302 in place of 300.

**51.1; I.** $3249^{\frac{1}{2}} x - \sqrt{625} = 4079$

or, $57x = 4079 + 25 = 4104$

$\therefore x = \dfrac{4104}{57} = 72$

**II.** $5776^{\frac{1}{2}} y - \sqrt{324} = 4162$

or, $76y = 4162 + 18 = 4180$

$\therefore y = \dfrac{4180}{76} = 55$

Hence, $x > y$

**52.1;** $3x - 2y = 37$ ....(i)

$5x - 2y = 59$ ....(ii)

Equation (i) × 3 – (ii) × 2

$9x - 6y = 111$

$10x - 6y = 118$

$\underline{\quad - \quad + \quad - \quad}$

$\overline{\quad -x = -7 \quad}$

Putting the value of x in eq (i), we ge $21 - 2y = 37$

or, $-2y = 37 - 21 = 16$

$\therefore y = -\dfrac{16}{2} = -8$

Hence $x > y$

**53. 3; I.** $9x^2 + 4x - 28 = 0$

**Step I.** $+18 \qquad -14$

**Step II.** $+\dfrac{18}{9}, \qquad -\dfrac{14}{9}$

**Step III.** $x = -2, \qquad +\dfrac{14}{9}$

**II.** $2y^2 - 17y + 36 = 0$

**Step I.** $-9 \qquad -8$

**Step II.** $-\dfrac{9}{2}, \qquad -\dfrac{8}{2}$

**Step III.** $y = 4.5, \qquad 4$

Hence $x < y$

54.1 I. $\sqrt{169x} + 561 = 678$

or, $13x = 678 - 561 = 117$

$\therefore$ x = $\dfrac{117}{3}$ = 9

II. $\sqrt{324x} + 678 = 822$

or, $18x = 822 - 678 = 144$

$\therefore$ x = $\dfrac{144}{18}$ = 8

Hence x > y

55. 5; I.  $7x^2 + 19x - 36 = 0$

**Step I.**  +28          –9

**Step II.**  $+\dfrac{28}{7}$,          $-\dfrac{9}{7}$

**Step III.** x = –4,          $+\dfrac{9}{7}$

II.  $2y^2 - 21y - 98 = 0$

**Step I.**  –28          +7

**Step II.**  $-\dfrac{28}{2}$,          $+\dfrac{7}{2}$

**Step III.** y = 4.5,     –3.5

Hence relationship can't be established.

56. 1; Let total votes = 100

```
                    100
                   /    \
               20        80 voted
           not voted      /    \
                   80 – 48 = 32    48 winner
                      /    \       (48% of 100)
                 loser       160
                   ↓
              32% – 160
```
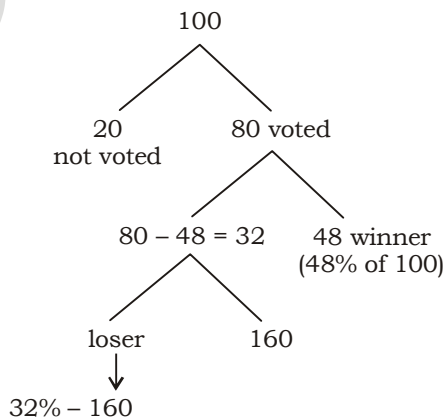
Now, 48% – (32% – 160) = 480

or, 16% = 320

∴ 48% = 960

57. 3; According to the question, the amounts are equal

∴ 105 × 1st part = 110 × 2nd part

= 115 × 3rd part = k

∴ 1st part : 2nd part : 3rd part

$= \dfrac{k}{105} : \dfrac{k}{110} : \dfrac{k}{115} = \dfrac{1}{21} : \dfrac{1}{22} : \dfrac{1}{23}$

= 506 : 483 : 462

Hence, on dividing ₹1451 into three parts in the ratio of 506 : 483 : 462

We have 1st part = ₹ 506

2nd part = ₹ 483

3nd part = ₹ 462

58. 4; A's one day's work = $\dfrac{1}{12}$

B's one day's work = $\dfrac{1}{16}$

C's one day's work = $\dfrac{1}{20}$

Ratio of efficiency = A : B: C

$= \dfrac{1}{12} : \dfrac{1}{16} : \dfrac{1}{20}$

A : B : C = 20 : 15 : 12

∴ A's share = $\dfrac{3525}{47} \times 20$ = ₹1500

**Method II.**

Ratio of efficiency = A : B : C

$= \dfrac{(12 \times 16 \times 20)}{12} : \dfrac{(12 \times 16 \times 20)}{16} : \dfrac{(12 \times 16 \times 20)}{20}$

= 16 × 20 : 12 × 20 : 12 × 16

= 20 : 15 : 12

A's share = $\dfrac{3525}{47} \times 20$ = ₹ 1500

59. 5; Reqd ratio = $\dfrac{\left(1 - \dfrac{2}{3}\right)^3}{1 - \left(1 - \dfrac{2}{3}\right)^3} = \dfrac{1}{27} \times \dfrac{27}{26}$

= 1 : 26

60. 1; Reqd number of ways = $^5C_3 \times {}^5C_5$

= 10 × 1 = 10

**61.** 4; Therefore 4 appears on the ticket-

4, 14, 24, 34, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 54, 64, 74, 84, 94

The total number of tickets having the digit '4' on it from 1 to 100 = 19

∴ Reqd probability = $\dfrac{^{19}C_1}{^{100}C_1}$ = $\dfrac{19}{100}$

**62.** 3; **Quicker Method :**

Reqd ratio = $S_1 : S_2$

= $\dfrac{1}{r_1 t_1} : \dfrac{1}{r_2 t_2} = \dfrac{1}{15} : \dfrac{1}{18}$ = 6 : 5

∴ $S_1 = \dfrac{11000 \times 6}{11}$ = ₹ 60000

And $S_2 = 110000 \times \dfrac{5}{11}$ = ₹ 50000

**63.** 1; **Given that**

L = 13, B = 11

Depth = $\dfrac{1 + 5.5}{2}$ = 3.25

∴ Volume of the swimming pool

= $l \times b \times h$

= 11 × 13 × 3.25 = 464.75m$^5$

**64.** 5; Let the speeds of the two trains be x m/sec and y m/sec respectively.

Length ofthe first train = 36x metres

and that of the second train = 24y metres

Now, $\dfrac{36x + 24y}{x + y}$ = 30

or, 36x + 24y = 30x + 30y

or, 36x - 30x = 30y - 24y

or, 6x = 6y

∴ $\dfrac{x}{y} = \dfrac{1}{1}$

So, the ratio of the speeds of the trains

= 1:1

**65.** 3; Perimeter = Distance travelled in 10 minutes = $\dfrac{12000}{60} \times 10$ = 2000m

The ratio of length to breadth is 3 : 2 And length + breadth = 1000 m

Hence length = $\dfrac{1000}{5} \times 3$ = 600m

And breadth = 400m

∴ Area = 600 × 400 = 240000 sqm

66.2; Reqd difference = (96% of 40% of 20 + 95% of 50% of 30) - (90% of 42% of 27.5 + 90% of 38% of 24)

= {20 × 0.96 × 0.4 + 30 × 0.95 × 0.5} - {27.5 × 0.90 × 0.42 + 24 × 0.9 × 0.38} = {(7.68 + 14.25) - (10.395 + 8.208)} = (21.93 - 18.603) = 3.327 lakh

67. 3; To find the no. of passed students we have three factors - no. of students, % appeared students and % passed students. IBPS Clerk shows highest value for two factors and second highest for one factor, so clearly it is our answer.

Hence the maximum in IBPS Clerk.

68. 1; Reqd average number

$$= \frac{8.448 + 10.125 + 8.208 + 14.25 + 10.395 + 7.68}{6}$$

$$= \frac{59.106}{6} = 9.851 \text{ lakh}$$

69. 5; We use the value of answer no. 98.

Reqd difference = $\frac{1}{2}$ (8.448 + 10.125) – 1

(10.395 + 7.68) = $\frac{1}{2}$ (18.573 - 18.075)

$= \frac{1}{2} \times$ 0.498 = 0.249 lakh

70. 5; Reqd% = $\dfrac{12\%\,(24 \times 90\% \times 38\%)}{24} \times 100$

= 12 × 0.9 × 0.38 = 10.8 × 0.38 ≈ 4%

⇒ $y = \pm 8$

## IBPS PO SPECIAL PHASE-I MOCK TEST- 275 (ANSWER KEY)

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