

**IBPS PO SPECIAL PHASE - I - 309 (SOLUTION)**

**REASONING**

(1-5) :

Day	Subject	Lecturer	Hour
Monday	Art	M	3
Tuesday	Economics	O	2
Wednesday	Hindi	N	1
Thursday	Maths	S	4
Friday	Chemistry	Q	5
Saturday	English	R	1
Sunday	Physics	P	2

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

(6-11) :

Teacher	Subject	Hobby
M	Science	Cooking
N	English	Painting
O	Geography	Shayari
P	History	Swimming
Q	Maths/Eco	Music/Tracking
R	Eco/Maths	Tracking/Music
S	Biology	Peotry
T	Chemistry	Singing

6. (1)      7. (3)      8. (1)      9. (4)      10. (3)      11. (4)

12. (4)  $A < B = C < F \leq G \leq D = E$

(i)  $A > F \rightarrow$  False

(ii)  $G > E \rightarrow$  False

If neither conclusion I nor II is true.

13. (4)  $O \geq P = R \leq S < Q = N \leq M$

(i)  $N < O \rightarrow$  False

(ii)  $M > O \rightarrow$  False

If neither conclusion I nor II is true.

14. (1)  $A \geq P = S > T = B \geq X > V$

(i)  $A > X \rightarrow$  True

(ii)  $P < B \rightarrow$  False

If only conclusion I is true.

15. (1)  $W < X > Z > U > V > Y < S$

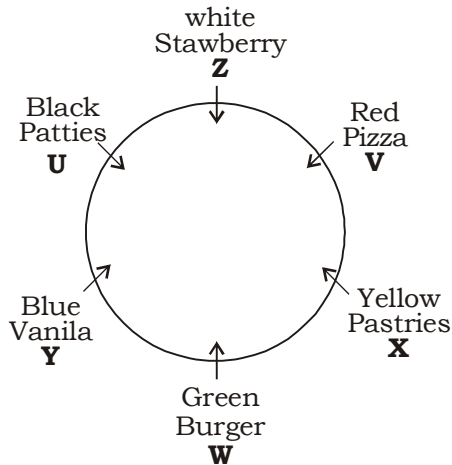
(i)  $S < Z \rightarrow$  False

(ii)  $X > Y \rightarrow$  True

If only conclusion II is true.

16. (1)  $R < V = A < X \leq Y < S < M < B$   
 (i)  $V < S \rightarrow$  True  
 (ii)  $M > R \rightarrow$  True  
 If both conclusion I and II are true.

**(17-21) :**



- |         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 16. (3) | 17. (2) | 18. (5) | 19. (1) | 20. (4) |
| 17. (3) | 18. (4) | 19. (1) | 20. (3) | 21. (4) |
| 22. (1) | 23. (2) | 24. (3) | 25. (3) | 26. (4) |

**(27-29) :**

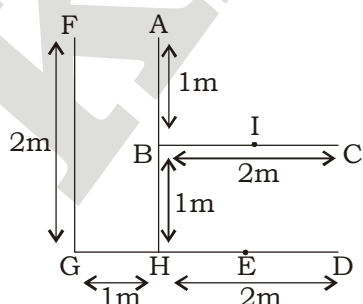
- $X \rightarrow$  male  $\rightarrow$  Publication
  - $X$  and  $Y \rightarrow$  Publication
  - $Y$  must be female
  - $U$  and  $S \rightarrow$  accounts
  - $T$  and  $W \rightarrow$  Brother  $\rightarrow$  different department one of work in accounts and other in operations. (all are male)
  - $S \rightarrow$  (Husband of  $V$ )  $\rightarrow V \rightarrow$  female
  - $U$  work in accounts must be female.
  - $V$  work in operation along with one of  $T$  and  $W$
- income  $\rightarrow S > X, S > T, X > W, A < H$ .

Since  $G$  earns maximum and  $U$  earns minimum.

$Y > V > S > [(W > X > T) \text{ or } (X > W > T) \text{ or } (W > T > X) \text{ or } (T > W > X) \text{ or } (T > X > W) \text{ or } (X > T > W)] > C$ .

27. (3)      28. (3)      29. (1)

**(30-31) :**



30. (3)      31. (1)

**(32-35) :**

$$\text{Vipul} = \text{Vimal} = \text{Vikas}$$

$$\text{Vimal} + \text{Vikash} + \text{Anil} = 32$$

$$\text{Anil} = \text{Vimal} + \text{Vikash}$$

Put in equation

$$2 \text{ Anil} = 32, \text{ Anil} = 16$$

$$\text{Vimal} + \text{Vikash} = 16$$

$$\text{Vimal} = \text{Vikash} = 8$$

Thus vipul = 8.

32. (5)      33. (5)      34. (5)      35. (5)

**MATHS**

**(36-40) :**

36. (1)  $212.5 \times 42.5 - 128.5 \times 33.2 = ?$

$$? = 9031.25 - 4266.20 = 4765.05$$

37. (4)  $(165)^2 + (145)^2 - (155)^2 = ? \div 25$

$$\frac{?}{25} = 27225 + 21025 - 24025$$

$$\frac{?}{25} = 24225$$

$$\therefore ? = 24225 \times 25 = 605625$$

38. (2)  $1496 \times ? \times 36 = 861696$

$$? = \frac{861696}{1496 \times 36} = 16$$

39. (3)  $23 \times 15 - 60 + ? \div 31 = 292$

$$345 - 60 + \frac{?}{31} = 292$$

$$\frac{?}{31} = 292 - 285$$

$$? = 31 \times 7 = 217$$

40. (3)  $14\% \text{ of } 1850 + ?\% \text{ of } 1380 = 463$

$$1850 \times \frac{14}{100} + \frac{?}{100} \times 1380 = 463$$

$$259 + 13.80 \times ? = 463$$

$$13.80 \times ? = 463 - 259$$

$$\therefore ? = \frac{204}{13.80} = 14.78$$

**(41-45) :**

41. (3) Required total =  $450 \times \frac{2}{5} + 540 \times \frac{5}{9} + 140 \times \frac{2}{5} + 250 \times \frac{3}{10} + 850 \times \frac{8}{17} + 480 \times \frac{5}{8}$   
 $= 180 + 300 + 56 + 75 + 400 + 300 = 1311$

42. (2) Required average =  $\frac{500 + 527 + 564 + 510 + 605 + 620}{6}$

$$= \frac{3326}{6} = 554.33 \approx 554$$

43. (5) Laptops sold by Lenovo in the year 2013 =  $564 \times \frac{1}{2} = 282$

Laptops unsold by Lenovo in the year 2011 =  $500 \times \frac{2}{5} = 200$

$$\therefore \text{Required \%} = \left( \frac{282}{200} \times 100 \right) \% = 141\%$$

44. (4) Laptop unsold by Asus in the year 2015 =  $660 \times \frac{5}{11} = 300$

Laptops sold by Dell in the year 2016 =  $819 \times \frac{5}{9} = 455$

$$\therefore \text{Required less\%} = \left[ \frac{455 - 300}{455} \times 100 \right] \% = 34.06\% \approx 34\%$$

45. (5) Required difference =  $500 \times \frac{1}{5} + 527 \times \frac{1}{17} + 564 \times \frac{0}{2} + 510 \times \frac{1}{3} + 605 \times \frac{1}{5} + 620 \times \frac{1}{5}$   
 $= 100 + 31 + 0 + 170 + 121 + 124 = 546$

**(46-50) :**

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

$$1548 \div 3 = 516$$

$$516 \div 4 = 129$$

$$129 \div 3 = 43$$

$$43 \div 4 = \mathbf{10.75}$$

Hence, 10.75 will replace the question mark.

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

$$949 \times 0.2 = 189.8$$

$$189.8 \times 0.3 = \mathbf{56.94}$$

$$56.94 \times 0.4 = 22.776$$

$$22.776 \times 0.5 = 11.388$$

$$11.388 \times 0.6 = 6.8328$$

Hence, 56.94 will replace the question mark.

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

$$121 + 23 \times 1 = 144$$

$$144 + 23 \times 2 = 190$$

$$190 + 23 \times 3 = 259$$

$$\therefore ? = 259 + 23 \times 4 = 259 + 92 = \mathbf{351}$$

Hence, 351 will replace the question mark.

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

$$14 \times 3 + 1.5 = 43.5$$

$$43.5 \times 6 + 1.5 \times 2 = 264$$

$$264 \times 12 + 1.5 \times 4 = \mathbf{3174}$$

$$3174 \times 24 + 1.5 \times 8 = 76188$$

Hence, 3174 will replace the question mark.

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

$$41 \times 2^2 = 164$$

$$164 \times 4^2 = 2624$$

$$2624 \times 6^2 = \mathbf{94464}$$

$$94464 \times 8^2 = 6045696$$

Hence 94464 will replace the question mark.

51. (3) Let  $x$  km/hr be the speed of the car in the return journey.

$$\text{Speed of the car in onward journey} = \frac{130}{100} \times x = \frac{13x}{10} \text{ km/hr}$$

$$= \frac{2 \times \frac{13x}{10} \times x}{\frac{13x}{10} + x} = \frac{26x}{23} \text{ km/hr}$$

Average speed

$$500 \times \frac{23}{26x} = 17$$

$$x \approx 26 \text{ km/hr}$$

$$\therefore \text{Speed in the onward journey} = \frac{13 \times 26}{10} = 33.8 \text{ km/hr}$$

52. (3) Number of ways of rearranging the word ENGINEER =  $\frac{8!}{3! \times 2!} = 3360$

Finding the number of ways of arranging the word ENGINEER such that G and R are always together is done by taking GR as a single alphabet and then finding the permutation.

Number of ways of arranging the word ENGINEER such that G and R are always together =

$$\frac{7!}{3! \times 2!} = 420$$

Number of ways of arranging the word ENGINEER such that G and R never together = Number of ways of rearranging the word ENGINEER. Number of ways of arranging the word ENGINEER such that G and R are always together.

Number of ways of arranging the word ENGINEER such that G and R are never together

$$= 3360 - 420 = 2940$$

53. (5) In first 3 days, 37% of the work is completed. So in last 7 days, 63% of the work will be done by A and B only.

$$\text{Which mean } 7\left(\frac{1}{A} + \frac{1}{B}\right) = \frac{63}{100}$$

$$\frac{1}{A} + \frac{1}{B} = \frac{9}{100}$$

It is given that  $5A = 4B$

$$\frac{5}{4B} + \frac{1}{B} = \frac{9}{100}$$

$B = 25$  days

$A = 20$  days

$C = 100$  days

Time taken by fastest worker = 20 days

Time taken by second fastest worker = 25 days

$$\therefore \text{Required\%} = \left[ \frac{25 - 20}{25} \times 100 \right] \% = 20\%$$

54. (2) Interest earns from first scheme =  $\frac{1500 \times 5 \times 14}{100} = ₹1050$

Amount =  $1500 + 1050 = ₹2550$

Interest earns after 2 years at compound interest = ₹ 1408

$$R = 20\% = \frac{1}{5}$$

$$\frac{5}{25} \times \frac{6}{36}$$

$$C.I = 36 - 25 = 11$$

$$\therefore 11 \text{ unit} \rightarrow 1408$$

$$\therefore 25 \text{ unit} \rightarrow \frac{1408}{11} \times 25 = ₹ 3200$$

$$\therefore \text{Required additional money} = 3200 - 2550 = ₹ 650$$

55. (3) Let speed of motorboat in still water be  $x$  km/h and speed of stream be  $y$  km/h.

Now, according to the question,

$$\frac{25}{x-y} + \frac{39}{x+y} = 8 \quad \dots\dots (1)$$

$$\frac{35}{x-y} + \frac{52}{x+y} = 11 \quad \dots\dots (2)$$

By equation (1)  $\times 4 - (2) \times 3$ ,

$$\text{We have } \frac{100}{x-y} - \frac{105}{x-y} = 32 - 33$$

$$\frac{-5}{x-y} = 1 \Rightarrow x-y = 5 \quad \dots\dots (3)$$

From equation (1)

$$\frac{25}{5} + \frac{39}{x+y} = 8$$

$$\frac{39}{x+y} = 8 - 5 = 3$$

$$x + y = 13 \quad \dots\dots\dots (4)$$

By equation (4) - (3)

$$x + y - x + y = 13 - 5 = 8$$

$$2y = 8$$

$$y = \frac{8}{2} = 4 \text{ km/h}$$

**(56-60) :**

56. (4) The speed of Vehicle V on both the days is 43 kmph

57. (3) Speed of U on 1st day = 52 kmph

Speed of W on 1st day = 63 kmph

$$\therefore \text{Difference} = 63 - 52 = 11 \text{ kmph}$$

58. (5) Speed of Vehicle W on 2nd day = 45 kmph =  $45 \times \frac{5}{18} = 2.5 \times 5 = 12.5 \text{ m/s}$

59. (5) Required % =  $\left(\frac{636}{703} \times 100\right)\% = 90.46 \approx 90\%$

60. (2) Required Ratio =  $\frac{\text{Speed of Vehicle X on day 2}}{\text{Speed of Vehicle Y and on day 2}}$

$$= \frac{51}{39} = \frac{17}{13} = 17 : 13$$

61. (4) We need equivalence between one day's work of man and woman.

From statement I, we can get 1 man's 1 day's work.

From statement II or III, we can get 1 woman's 1 day's work.

Hence, we can establish the relation between man's and woman's work and get the required answer.

62. (5) When a train crosses a pole, then

$$\text{Speed of train} = \frac{\text{Length of train}}{\text{Time taken}}$$

When a train crosses a platform, then Speed of train

$$= \frac{\text{Length of platform and train}}{\text{Time}}$$

Clearly, statement II and either I or III supplement the required data to determine the speed of train.

63. (5) Area of the square = (side)<sup>2</sup> =  $\frac{1}{2}$  (diagonal)<sup>2</sup>

Again, Perimeter = 4 × side

Clearly, from any one of the three statements we can determine area of the square.

64. (3) Let the number be  $10x + y$ .

From statement I,

$$(10y + x) - (10x + y) = 18$$

$$9(y - x) = 18$$

$$y - x = 2 \quad \dots(i)$$

From statement II,

$$x + y = 14 \quad \dots(ii)$$

From statement III,

$$y - x = 2 \quad \dots(iii)$$

Clearly, statement II and either I or III can supplement the data to know  $x$  and  $y$  and hence the number.

65. (2) From statement I,

We do not know the principal.

From statement II,

Data are incomplete,

i.e. principal is unknown.

From statement III,

We get the required data, i.e.

If principal be ₹  $x$ .

Interest = ₹  $x$

Time = 5 years,

$$\text{Rate} = \frac{\text{Interest} \times 100}{\text{Principle} \times \text{time}}$$

**(66-70) :**

66. (5) I.  $8x^2 + 18x + 4 = 0$

$$\Rightarrow 8x^2 + 16x + 2x + 4 = 0$$

$$\Rightarrow 8x(x + 2) + 2(x + 2) = 0$$

$$\Rightarrow (8x + 2)(x + 2) = 0$$

$$\Rightarrow (8x + 2)(x + 2) = 0$$

$$\Rightarrow x = -\frac{2}{8}, -2$$

$$\text{or } -\frac{1}{4}, -2$$

II.  $2y^2 + 29y + 14 = 0$

$$\Rightarrow 2y^2 + 28y + y + 14 = 0$$

$$\Rightarrow 2y(y + 14) + 1(y + 14) = 0$$

$$\Rightarrow (2y + 1)(y + 14) = 0$$

$$\Rightarrow y = -\frac{1}{2}, -14$$



67. (4) I.  $x^2 - 144 = 0$   
 $\Rightarrow x^2 = 144 \quad \Rightarrow x = \pm 12$

II.  $y = \sqrt{144}$

$\Rightarrow y = 12$

$\therefore$  clearly,  $x \leq y$

68. (3) I.  $17x^2 + 48x = 9$   
 $\Rightarrow 17x^2 + 48x - 9 = 0$   
 $\Rightarrow 17x + 51x - 3x - 9 = 0$   
 $\Rightarrow 17x(x + 3) - 3(x + 3) = 0$   
 $\Rightarrow (17x - 3)(x + 3) = 0$

$\Rightarrow x = \frac{3}{17}, -3$

II.  $13y^2 = 35y - 18$

$\Rightarrow 13y^2 - 35y + 18 = 0$

$\Rightarrow 13y^2 - 26y - 9y + 18 = 0$

$\Rightarrow 13y(y - 2) - 9(y - 2) = 0$

$\Rightarrow (13y - 9)(y - 2) = 0$

$\Rightarrow y = \frac{9}{13}, 2$

$\therefore$  clearly,  $x < y$

69. (5) I.  $2x^2 - 8x - 64 = 0$   
 $\Rightarrow 2x^2 - 16x + 8x - 64 = 0$   
 $\Rightarrow 2x(x - 8) + 8(x - 8) = 0$   
 $\Rightarrow (2x + 8)(x - 8) = 0$

$\Rightarrow x = -\frac{8}{2}, 8 \text{ or } -4, 8$

II.  $2y^2 - 13y - 34 = 0$

$\Rightarrow 2y^2 + 4y - 17y - 34 = 0$

$\Rightarrow 2y(y + 2) - 17(y + 2) = 0$

$\Rightarrow (2y - 17)(y + 2) = 0$

$\Rightarrow y = \frac{17}{2}, -2$

70. (3) I.  $x^2 + 40x + 399 = 0$   
 $\Rightarrow x^2 + 21x + 19x + 399 = 0$   
 $\Rightarrow 2x(x + 21) + 19(x + 21) = 0$   
 $\Rightarrow (x + 19)(x + 21) = 0$

$\Rightarrow x = -19, -21$

II.  $y^2 - 2y - 195 = 0$

$\Rightarrow y^2 - 15y + 13y - 195 = 0$

$\Rightarrow y(y - 15) + 13(y - 15) = 0$

$\Rightarrow (y + 13)(y - 15) = 0$

$\Rightarrow y = -13, 15$

$\therefore$  Clearly,  $x < y$

**ENGLISH LANGUAGE**

81. (2) Remove 'for' in sentence.
82. (3) 'The' replace with 'about the'.
83. (3) 'Interested me in' replace with "Interested me with'.
84. (5) No error.
85. (4) 'Water' replace with 'in water'.
86. (5) No error.
87. (2) 'ever-grow' wrong phrase correct is 'ever-growing'.
88. (4) 'Probable' (adjective) replace with 'probably'(adverb).
89. (4) 'Above' replace with 'over'.

**VOCABULARIES**

<b>Words</b>	<b>Meaning in English</b>	<b>Meaning in Hindi</b>
Concomitant	happening at the same time as something else	सहवर्ती/सहचारी
Assiduous	working very hard and taking great care	परिक्रामी/तत्पर
Omniscient	knowing every thing	सर्वदर्शी/सर्वज्ञ
Ulterior	that some-body keeps hidden and does not admit	अप्रत्यक्ष/अनदेखा
Altruistic	A person who cares about the needs and happiness of other people more than your own	निःस्वार्थी/परोपकारी
Deported	to force somebody to leave a country	निर्वासित
Augmented	to increase the amount value, size of something	बढ़ाना/संवर्धित
Spurious	false/although seeming to be genuine	नकली/कृत्रिम
Inadvertently	by accident	अनजाने में
Resplendent	Brightly coloured in an impressive way	चमकीला
Galvanise	To encourage	प्रगति करना
Cater to	To meet the need	जरूरत/मांग पूरी करना
Churn out	To produce in large number	बड़ी मात्रा में उत्पादन करना
Conducive	Helpful	सहायक
Allure	Attraction	आकर्षण
Civil amenities	public facility	जन सुविधाएं
Mitigate	To lessen	कम करना
Outstrip	To surpass	पीछे छोर देना
Pre-requisite	Pre-condition	पूर्व शर्त

KD  
Campus

**KD Campus**

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

**IBPS PO SPECIAL PHASE - I - 309 (ANSWER KEY)**

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