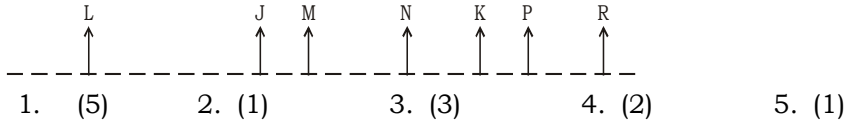


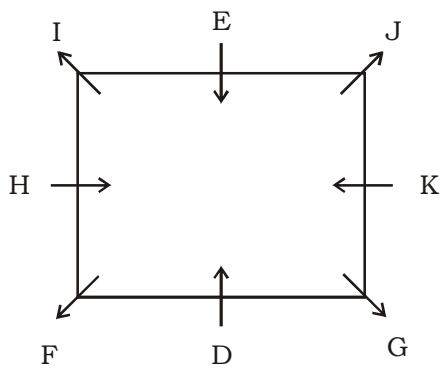
IBPS PO SPECIAL PHASE - I - 283 (SOLUTION)

REASONING

(1-5):

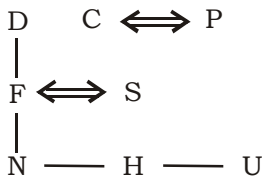


(6 - 10):



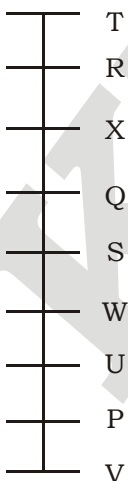
6. (4) 7. (3) 8. (3) 9. (5) 10. (4)

(11-13):



11. (1) 12. (2) 13. (1) 14. (1)
15. (5) 16. (3) 17. (2) 18. (4)

(19 - 23):



19. (2) 20. (1) 21. (4) 22. (1) 23. (4)

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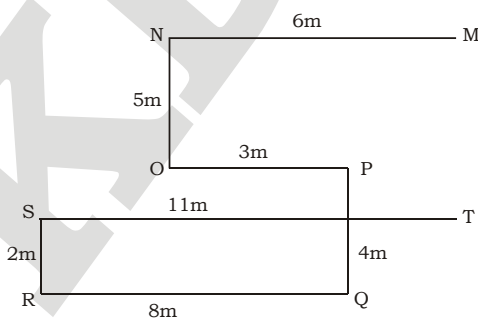
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24. (1) Given Word: UNDERNEATH
First, Fourth, Sixth and Ninth letters are U, E, N, T
Word formed \Rightarrow TUNE
First letter of word is 'T'.

25. (1)
(26 - 30) :

Year	Age	Person
1945	73	R
1956	62	V
1961	57	S
1973	45	P
1978	40	U
1989	29	T
1996	22	W
2007	11	Q

26. (2) 27. (5) 28. (1) 29. (3)
30. (5) 31. (5) 32. (5) 33. (4)
34. (1) From statement 1,
 $E > B > C$, D (In weight) but E is not the heaviest that means A is the heaviest.
 $A > E > B > C$, D
From statement 2,
 $A > E > B$, C. So, D could be either the heaviest or the lightest.
Statement 2, does not clarify Hence, statement 1 alone is sufficient to answer the question.
35. (5) From I and II,



- So point M is north of point T.
So I and II together are necessary to answer the question.

Maths

36. (5) Amount invested in scheme A be Rs.X and amount invested in scheme B be Rs.(7000 -X)

$$\text{Interest earned from scheme A} = X \times [10 + 10 + (10 \times 10)/100]\% = X \times \left(\frac{21}{100}\right)$$

$$\text{Return from Scheme B} = (7000 - X) \times \left(3 \times \frac{15}{100}\right)$$

$$= (7000 - X) \times \frac{45}{100}$$

ATQ,

$$X \times \left(\frac{21}{100}\right) = [(7000 - X) \times 45/100] \times \left(\frac{84}{100}\right)$$

$$X = (7000 - X) \times 1.8$$

$$2.8X = 7000 \times 1.8$$

$$X = 7000 \times \left(\frac{18}{28}\right) = 4500$$

37. (1) Let the number of red balls be X, then

$$\text{Probability of getting 1st ball red} = \frac{X}{(X + 5)}$$

$$\text{Probability of getting 2nd ball red (Without replacement)} = (X - 1)/(X + 4)$$

$$\text{Probability of getting both balls red} = [X/(X + 5)] \times [(X - 1)/(X + 4)] = \frac{3}{7}$$

On solving, we get

$$X = 10$$

38. (3) A alone can do = 20 days

$$\text{Efficiency ratio of A \& B} = 4 : 5$$

$$\text{Time required will be in ratio} = 5 : 4$$

$$\text{Hence B alone will do it in} = 16 \text{ days}$$

$$\text{LCM of (16, 20)} = 80,$$

Assume work size of 80 units

$$1 \text{ day work of A} = 4 \text{ units}$$

$$1 \text{ day work of B} = 5 \text{ units}$$

$$\text{Work done by both in 4 days} = 4 \times (5 + 4) = 36 \text{ units}$$

$$\text{Work left} = 80 - 36 = 44 \text{ units}$$

$$\text{Now C takes 22 days to complete} = 44 \text{ units.}$$

$$\text{Therefore, the efficiency of C} = \frac{44}{22} = 2$$

$$\text{Hence time taken by C alone to complete the work} = \frac{80}{2} = 40 \text{ days}$$

39. (3) Say haircut voucher = H pedicure voucher P = H - 130

$$H + P = 450,$$

$$H = 290, P = 160$$

$$\text{Male getting pedicure} = 160 \times \left(\frac{13}{20}\right) = 104$$

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Female Getting Pedicure = $160 \times \left(\frac{7}{20}\right) = 56$

Male Haircut = $104 + 15 = 119$

Female haircut = $290 - 119 = 171$

	Male	Female	Total
Haircut	119	171	290
Pedicure	104	56	160
Total	223	227	450

Required % = $\left(\frac{56}{290}\right) \times 100 = 19\%$

40. (4) Say haircut voucher = H pedicure voucher P = H - 130

H + P = 450,

H = 290, P = 160

Male getting pedicure = $160 \times \left(\frac{13}{20}\right) = 104$

Female Getting Pedicure = $160 \times \left(\frac{7}{20}\right) = 56$

Male Haircut = $104 + 15 = 119$

Female haircut = $290 - 119 = 171$

	Male	Female	Total
Haircut	119	171	290
Pedicure	104	56	160
Total	223	227	450

Total for manicure = $30 + 50\% \text{ of } 290 = 30 + 145 = 175$

41. (4) Say haircut voucher = H pedicure voucher P = H - 130

H + P = 450,

H = 290, P = 160

Male getting pedicure = $160 \times \left(\frac{13}{20}\right) = 104$

Female Getting Pedicure = $160 \times \left(\frac{7}{20}\right) = 56$

Male Haircut = $104 + 15 = 119$

Female haircut = $290 - 119 = 171$

Males redeemed pedicure voucher = 104

42. (3) Say haircut voucher = H pedicure voucher P = H - 130

H + P = 450,

H = 290, P = 160

Male getting pedicure = $160 \times \left(\frac{13}{20}\right) = 104$

$$\text{Female Getting Pedicure} = 160 \times \left(\frac{7}{20}\right) = 56$$

$$\text{Male Haircut} = 104 + 15 = 119$$

$$\text{Female haircut} = 290 - 119 = 171$$

$$\text{Males redeemed pedicure voucher} = 104$$

43. (4) Say haircut voucher = H pedicure voucher P = H - 130

$$H + P = 450,$$

$$H = 290, P = 160$$

$$\text{Male getting pedicure} = 160 \times \left(\frac{13}{20}\right) = 104$$

$$\text{Female Getting Pedicure} = 160 \times \left(\frac{7}{20}\right) = 56$$

$$\text{Male Haircut} = 104 + 15 = 119$$

$$\text{Female haircut} = 290 - 119 = 171$$

$$\text{Males redeemed pedicure voucher} = 104$$

$$\text{Required Difference} = 104 - 56 = 48$$

44. (1) Required average = $\{98.75\% \text{ of } (2.8 + 3.6)\} / 2 = 3.16 \text{ lakh.}$

45. (4) Shirts failed test in 2014 = 2.5% of 3.2 lakh = 8000

$$\text{Shirts failed test in 2017} = 1.25 \% \text{ of } 3.6 \text{ lakh} = 4500$$

$$\text{Decerases in percentage} = (8000 - 4500) \times \left(\frac{100}{8000}\right) = 43.75\%$$

46. (4) In the year 2015 : No. of coloured shirts : No. of white shirts = 3 : (3 - 1) = 3 : 2

$$\text{Hence, answer} = \left(\frac{3}{5}\right) \times 4 = 2.4 \text{ lakh}$$

47. (3) Number of shirts, which passed the quality test in 2015 = 97.75% of 4.0 lakh

$$\text{Hence, answer} = 10\% \text{ of } (97.75\% \text{ of } 4.0 \text{ lakh}) = 39100$$

48. (2) Total no. of shirts passed the quality test

$$= 3,20000 \times \left(1 - \frac{2.5}{100}\right) = 3,20000 \times \frac{97.5}{100} = 312000$$

$$\text{Hence, the total revenue} = 3,12,000 \times 500 = \text{Rs.15.6 Crore.}$$

(49-53):

49. (1) Required ratio = $\frac{2500 + 5500}{3500 + 3500} = \frac{8000}{7000} = \frac{8}{7}$

50. (2) Sales of company HP in 2017 = $1.2 \times 5000 = 6000$

$$\text{Sales of company Dell in 2017} = 1.1 \times 4500 = 4950$$

$$\text{Required Difference} = 6000 - 4950 = 1050$$

51. (3) Sales of both the companies in 2015 = $3500 + 5000 = 8500$

$$\text{Sales of both the companies in 2013} = 3000 + 2000 = 5000$$

$$\text{Required \%} = \frac{(8500 - 5000)}{5000} \times 100 = \frac{3500}{5000} \times 100 = 70\%$$

52. (4) Total sales of HP from 2012 to 2014 = $2500 + 2000 + 4000$

$$\text{Total sale of Dell from 2013 to 2015} = 3000 + 5500 + 5000 = 13500$$

$$\text{Required Difference} = 13500 - 8500 = 5000$$

53. (2) Sales of HP in 2011 = $2500 \times \frac{100}{125} = 2000$

$$\text{Required percentage increase} = \frac{(3500 - 2000)}{2000} \times 100$$

$$= \frac{1500}{2000} \times 100 = 75\%$$

54. (2) Given, $r = 5\text{cm}$ and volume of cylinder = $\pi r^2 h = 500\pi$
 $h = 20\text{ cm}$

So, the diagonal of square = 20 cm

$$\text{Side of the square} = \frac{\text{Diagonal}}{\sqrt{2}} = \frac{20}{\sqrt{2}} = 10\sqrt{2}\text{ cm}$$

$$\text{Perimeter of square} = 4 \times \text{side} = 4 \times 10\sqrt{2} = 40\sqrt{2}\text{ cm}$$

55. (2) A. $2x^2 + 5x + 3 = 0$
 $\Rightarrow 2x^2 + 2x + 3x + 3 = 0$
 $\Rightarrow 2x(x + 1) + 3(x + 1) = 0$
 $\Rightarrow (2x + 3)(x + 1) = 0$

$$\Rightarrow x = -\frac{3}{2} \text{ or } x = -1$$

B. $2y^2 - 7y + 6 = 0$
 $\Rightarrow 2y^2 - 4y - 3y + 6 = 0$

$$\Rightarrow y = +2 \text{ or } y = +\frac{3}{2}$$

Thus, $x < y$

56. (4) A. $3x^2 - 7x + 4 = 0$
 $\Rightarrow 3x^2 - 4x - 3x + 4 = 0$

$$\Rightarrow X = \frac{4}{3} \text{ or } 1$$

B. $2y^2 - 3y + 1 = 0$
 $\Rightarrow 2y^2 - 2y - y + 1 = 0$

$$\Rightarrow Y = 1 \text{ or } \frac{1}{2}$$

57. (1) A. $x^2 + 12x + 35 = 0$
 $\Rightarrow x^2 + 7x + 5x + 35 = 0$
 $\Rightarrow x = -7 \text{ or } -5$

B. $y^2 + 17y + 72 = 0$
 $\Rightarrow y^2 + 8y + 9y + 72 = 0$
 $\Rightarrow Y = -8 \text{ or } -9$

So, $x > y$

58. (4) A. $x^2 - 10x + 25 = 0$
 $\Rightarrow x^2 - 5x - 5x + 25 = 0$

$$\Rightarrow x = +5$$

B. $y^2 = 25$
 $\Rightarrow Y = +5, -5$

So, $x = y$

59. (2) A. $x^2 - 36x + 324 = 0$
 $x^2 - 18x - 18x + 324 = 0$
 $x = 18$
 B. $y^2 - 42y + 441 = 0$
 $y^2 - 21y - 21y + 441 = 0$
 $y = 21$
 $x < y$
60. (2) In 30 minutes the train with 50 Km speed reach at a distance of 25 Km
 And their relative speed is 25 Km/h
- So, Time take $\rightarrow \frac{25}{25} = 1\text{Hr}$
- Distance from Delhi the two trains will be together = $75 \times 1 = 75\text{ KM}$
61. (4) Cost Price = Rs. (50000 + 2000 + 500) = Rs. 52,500
 Profit = 20%
 Hence, selling price = 120% of 52500 = Rs. Rs. 63,000
62. (1) Let the number of persons in the group Initially be x, then
 $x \times 16.75 + 20 \times 13.25 = (x + 20) \times 15$
 $\Rightarrow 1.75x = 20 \times (15 - 13.25)$
 $\Rightarrow 1.75x = 20 \times 1.75$
 $\Rightarrow x = 20$
63. (5) $A_{2001} : A_{2002} = 4 : 5$
 $A_{2001} : B_{2001} = 2 : 3$
 We have to make A_{2001} same in both cases.
 $A_{2001} : B_{2001} = 4 : 6$
 Let A's income in 2001 = $4x$
 Let B's income in 2001 = $6x$
 A and B income in 2001 = 25000[Given]
 $10x = 25000$
 $x = 2500$
 A's income in 2001 = $4x = 4 \times 2500 = \text{Rs. } 10000$
 B's income in 2001 = $6x = 6 \times 2500 = \text{Rs. } 15000$
 A's income in 2002 = $5x = 5 \times 2500 = \text{Rs. } 12500$
 Savings of A in 2002 = Rs. 4000
 Expenditure = Income - Savings = $12500 - 4000 = \text{Rs. } 8500$
64. (1) Let the current ages be y and 3y
 Their ages after 5 years $\rightarrow y + 5$ & $3y + 5$
- $$\frac{(y+5)}{(3y+5)} = \frac{3}{4} \rightarrow y = 1$$
- So, their current ages are 1 & 3 years and after 10 years the average age be 12 years.
65. (1) Ratio of mixture of spirit and water in Container 1 = 2 : 3
 Amount of mixture taken = 10 litres
- Amount of spirit = $\frac{2}{5} \times 10 = 4$ litres
- Amount of water = $\frac{3}{5} \times 10 = 6$ litres
- Ratio of mixture of spirit and water in Container 2 = 3 : 2
 Amount of mixture taken = x litres
- Amount of spirit = $\frac{3}{5} \times x = \frac{3x}{5}$ litres

$$\text{Amount of water} = \frac{2}{5} \times x = \frac{2x}{5} \text{ litres}$$

Ratio of mixture of spirit and water in resultant mixture = 4 : 5

Therefore,

$$\frac{\left(4 + \frac{3x}{5}\right)}{\left(6 + \frac{2x}{5}\right)} = \frac{4}{5}$$

$$\frac{\left(\frac{20}{5} + \frac{3x}{5}\right)}{\left(\frac{30}{5} + \frac{2x}{5}\right)} = \frac{4}{5}$$

$$\frac{(20+3x)}{(30+2x)} = \frac{4}{5}$$

$$100 + 15x = 120 + 8x$$

$$7x = 20; x = 2.86 \text{ litres}$$

66. (2) 0.5, 2, 1, 4, 32, 512
taking from opposite side

$$512 \div 2^4 = 32$$

$$32 \div 2^3 = 4$$

$$4 \div 2^2 = 1$$

$$1 \div 2^1 = 0.5 \neq 2$$

$$0.5 \div 20 = 0.5$$

Hence 2 is wrong term.

67. (2) $5.1 = 4 + 1.1$

$$7.3 = 5.1 + 2.2$$

$$10.6 = 7.3 + 3.3$$

$$15 = 10.6 + 4.4$$

$$20.5 = 15 + 5.5$$

(Hence, 20 is the wrong term)

$$27.1 = 20.5 + 6.6$$

68. (4) $3 = (2 \times 2) - 1$

$$8 = (3 \times 3) - 1$$

$$31 = (8 \times 4) - 1$$

$$154 = (31 \times 5) - 1$$

$$923 = (154 \times 6) - 1$$

(Hence, 924 is the wrong term)

$$6460 = (923 \times 7) - 1$$

69. (4) $134 - 69 = 65$ further $65 - 33 = 32$

$$69 - 36 = 33 \quad 33 - 17 = 16$$

$$36 - 19 = 17 \quad 17 - 9 = 8$$

$$9 - 10 = 9 \quad 9 - 5 = 4$$

$$10 - 5 = 5$$

70. (2) $251 - 1^3 = 250$

(Hence, 252 is the wrong term)

$$250 + 2^2 = 254$$

$$254 - 3^3 = 227$$

$$227 + 4^2 = 243$$

$$243 - 5^3 = 118$$

$$118 + 6^2 = 154$$

IBPS PO SPECIAL PHASE - I - 283 (ANSWER KEY)

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