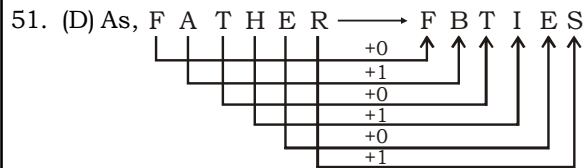
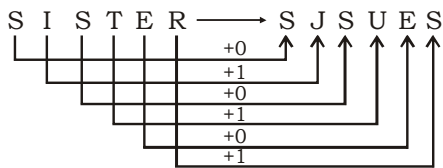


DELHI POLICE MOCK TEST - 03 (SOLUTION)



Similarly,



52. (C) $5 + 1 = (6)^2 \Rightarrow 36$
 $6 + 1 = (7)^2 \Rightarrow 49$

53. (C) Pen is filled with ink. Similarly, vein is filled with blood.

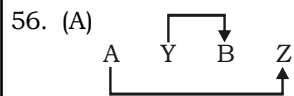
54. (A) 1 2 3 4
3 2 1 4
T A L E \Rightarrow L A T E

The first and the third letters have been interchanged.

3 2 1 4 1 2 3 4
C A F E \Rightarrow F A C E

55. (B) As, 49 : 81
 \downarrow \downarrow
(7)² (9)²

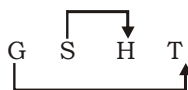
Similarly, 64 : 100
 \downarrow \downarrow
(8)² (10)²



Pairs of opposite letters



Similarly,



57. (*) $7 \times 7 - 1 = 49 - 1 = 48$
 $12 \times 12 - 1 = 144 - 1 = 143$

58. (*) D E H I
 \downarrow \downarrow \downarrow \downarrow
(4 \times 5) \div 2 = 10 (8 \times 9) \div 2 = 36

59. (C) $\frac{Z}{26} : \frac{Y}{25} \Rightarrow$ Difference of 1.

Similarly, $\frac{B}{2} : \frac{A}{1}$

60. (B) Carpenter is different from the other three. Lawyer, Doctor and Engineer are required to accomplish certain courses.

61. (D) Except 243, all other numbers are perfect squares of natural numbers.

62. (A) Except elephant all others are wild animals. Elephant can be domesticated.

63. (D) $9\frac{1}{11} = \frac{100}{11}$, $7\frac{9}{13} = \frac{100}{13}$,

$5\frac{15}{17} = \frac{100}{17}$

But, $5\frac{6}{19} = \frac{101}{19}$

64. (A) 13 is a Prime number.

65. (A) A $\xrightarrow{+2}$ C ; D $\xrightarrow{+2}$ F
T $\xrightarrow{+1}$ U ; O $\xrightarrow{+1}$ P
H $\xrightarrow{+1}$ I ; V $\xrightarrow{+1}$ W
F $\xrightarrow{+1}$ G ; K $\xrightarrow{+1}$ L

66. (D) K $\xrightarrow{+2}$ M
D $\xrightarrow{+2}$ F
X $\xrightarrow{+2}$ Z

But, R $\xrightarrow{+3}$ U

67. (A) There is only one 'N' in the keyword while there are two N's in the word NATIONAL.

68. (C) Except the number 279, all other numbers are completely divisible by 11.

$\frac{22}{11} = 2$; $\frac{33}{11} = 3$

$\frac{66}{11} = 6$; $\frac{99}{11} = 9$

$\frac{121}{11} = 11$; $\frac{594}{11} = 54$

But, $\frac{279}{11} = 25.36$

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69. (B)

+	→	+
×	→	-

Given expression

$$(15 \times 9) \div (12 \times 4) \times (4 \div 4) = ?$$

After changing the sign,

$$? = (15 - 9) + (12 - 4) - (4 + 4)$$

$$\text{or, } ? = (6) + (8) - (8)$$

$$\text{or, } ? = 6 + 8 - 8 = 6$$

70. (C) $3 \times 3 + 1 = 10$

$$10 \times 10 + 1 = 101$$

$$101 \times 101 + 1 = 10202$$

71. (A) $1 + 3 = 4$

$$3 + 4 = 7$$

$$4 + 7 = 11$$

$$7 + 11 = 18$$

72. (C) First figure

$$9 \times 9 = 81$$

$$81 \times 9 = 729$$

Second figure

$$8 \times 8 = 64$$

$$64 \times 8 = 512$$

Third figure

$$7 \times 7 = 49$$

$$49 \times 7 = 343$$

73. (D) $4 \times 4 = 16$

$$16 \times 4 = 64$$

$$64 \times 4 = 256$$

74. (*) Meaningful order of words in ascending order:

Infant → Child → Education → Profession → Marriage

75. (D) a **b** ba/ **a** bb **a**/ ab **b** a

76. (B) b **b** y **t**/ **b** by **t**/ b **b** yt

77. (C)

78. (A) Hands of clock will be together at $32\frac{8}{11}$

minutes past 6.

There are 30 minute spaces between hour and minute hand at 6 O' clock.

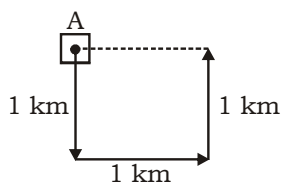
The minute hand gains 55 minutes in 60 minutes

∴ It will gain 30 minutes in

$$\frac{60}{55} \times 30 = 32\frac{8}{11} \text{ minutes}$$

79. (C) Number '4' is present in all the three geometrical figures.

80. (C)



It is clear from the diagram that Mohan is facing towards North.

81. (B)

Top	4	6	1
Bottom	4	2	5

82. (D)

83. (D)

84. (A)

85. (C)

86. (A) Let the numbers are a and b where $a > b$. According to the question,

$$(a - b) = \frac{15}{100} (a + b)$$

$$(a - b) = \frac{3}{20} (a + b)$$

$$20a - 20b = 3a + 3b$$

$$17a = 23b$$

$$\frac{a}{b} = \frac{23}{17} = 23 : 17$$

87. (C) CP of 25 chairs = SP of 30 chairs
 $25 \text{ CP} = 30 \text{ SP}$

$$\frac{\text{CP}}{\text{SP}} = \frac{30}{25}$$

$$\left. \begin{array}{l} \text{CP} \rightarrow \frac{6}{5} \\ \text{SP} \rightarrow \frac{6}{5} \end{array} \right\} 1 \text{ unit loss}$$

$$\text{Loss \%} = \frac{1}{6} \times 100 = 16\frac{2}{3}\%$$

88. (C) M.P. of an article = ₹ 500

After discount, S.P. of an article

$$= 500 \times \frac{80}{100} \times \frac{90}{100} = ₹ 360$$

89. (D) Let principal = ₹ P

Amount = ₹ 2P

Simple interest = $2P - P = ₹ P$

$$P = \frac{P \times T \times R}{100}, P = \frac{P \times 25 \times T}{4 \times 100}$$

$$400 = 25 T = T = \frac{400}{25}$$

Time = 16 years

90. (A) $a : b = 7 : 9$

and $b : c = 5 : 7$

$$\Rightarrow a : b$$

$$\quad \searrow \quad \downarrow \quad \swarrow$$

$$\quad \quad b : c$$

$$\Rightarrow a : b : c$$

$$7 : 9$$

$$\quad \quad \quad 5 : 7$$

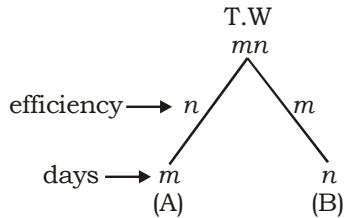
$$\hline 35 : 45 : 63$$

$$\Rightarrow a : c$$

$$35 : 63$$

$$5 : 9$$

91. (D)



efficiency of A and B = $m + n$
(A + B) completes the work in

$$\frac{\text{T.W}}{\text{efficiency (A+B)}} = \frac{mn}{m+n}$$

92. (D) Time = $\frac{\text{distance}}{\text{speed}}$ 30 sec

$$= \frac{\text{platform} + \text{train length}}{\text{speed}}$$

$$30 = \frac{600 + \text{train}}{30}$$

train's length = $900 - 600 = 300$ m

93. (A) Let the speed of boat in still water = x km/h
Speed of a stream = y km/h
Speed of boat in downstream = $x + y$ km/h
Speed of boat in upstream = $x - y$ km/h

$$\text{Upstream} = \frac{40}{8} = 5 \text{ km/h}$$

$$\text{Downstream} = \frac{36}{6} = 6 \text{ km/h}$$

$$\text{Speed of stream} = \frac{6-5}{2} = 0.5 \text{ km/h}$$

94. (D) According to the question

$$\Rightarrow 3^{x+y} = 81 \text{ and } 81^{x-y} = 3$$

$$\Rightarrow 3^{x+y} = (3)^4 \text{ and } (3)^{4(x-y)} = 3$$

$$\Rightarrow x + y = 4 \text{ and } x - y = \frac{1}{4}$$

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

$$x - y = \frac{1}{4} \quad \dots(ii)$$

Solve equation (i) and (ii)

$$x = \frac{17}{8}, y = \frac{15}{8}, \frac{x}{y} = \frac{17}{15}$$

95. (B) $x + \frac{1}{x+1} = 1$

Adding (1) both sides

$$\therefore x + 1 + \frac{1}{x+1} = 1 + 1$$

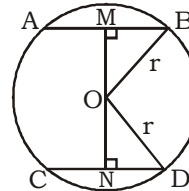
$$\Rightarrow (x + 1) + \left(\frac{1}{x+1}\right) = 2$$

Put $x + 1 = 1$ and $\frac{1}{x+1} = 1$

$$\therefore (x + 1)^5 + \frac{1}{(x + 1)^5}$$

$$= 1 + 1 = 2$$

96. (A) According to question
Given:



AB = CD = 8 cm

r = 5 cm

\therefore In $\triangle OMB$

$$OB^2 = OM^2 + MB^2$$

$$r^2 = OM^2 + (4)^2$$

$$(5)^2 = OM^2 + 16$$

$$25 - 16 = OM^2$$

$$OM^2 = 25 - 16$$

$$OM^2 = 9$$

$$OM = 3$$

$$\therefore MN = 2 \times OM$$

$$MN = 2 \times 3 = 6 \text{ cm}$$

97. (C) LCM = 1820

HCF = 26

1st number = 130

$$\Rightarrow \text{LCM} \times \text{HCF} = \text{Product of numbers}$$

$$\Rightarrow \text{Let the other number is } x$$

$$\therefore 130 \times x = 1820 \times 26$$

$$x = \frac{1820 \times 26}{130} = 364$$

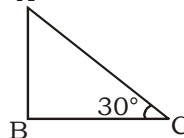
98. (B) $\cos 1^\circ \cos 2^\circ \cos 3^\circ \dots \dots \cos 180^\circ$

$$\cos 1^\circ \cos 2^\circ \cos 3^\circ \dots \dots \cos 90^\circ \dots \dots \cos 180^\circ$$

$$= 0 \left[\begin{array}{l} \text{because } \cos 90^\circ = 0 \\ \text{Then all terms become '0'} \end{array} \right]$$

99. (B) Area of $\Delta = \frac{\sqrt{3}}{4} a^2 = \frac{\sqrt{3}}{4} \times (2)^2 = \sqrt{3} \text{ cm}^2$

100. (B) A



AB = Tower

BC = 50

In $\triangle ABC$

$$\tan \theta = \frac{AB}{BC}$$

$$\tan 30^\circ = \frac{AB}{50}$$

$$AB = \frac{50}{\sqrt{3}} \text{ m}$$



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DELHI POLICE MOCK TEST – 03 (ANSWER KEY)

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

Note:- If you face any problem regarding result or marks scored, please contact 9313111777

Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003