36. The design is moving 90° in clockwise direction and one new design with 16 dots is adding.

37. The design is moving 90° in anti-clockwise direction and new design is adding one by one.

38. The top number of dice is increasing subsequently.

39. The left side lines are decreasing and right side lines increasing one by one.

40. The up design is moving downwards and down design is moving 90° in anti-clockwise direction with the addition of one line.

41. The next figure is being made by cutting half first figure.

42. The next is being made by cutting half first figure and then move 90°.

43. Next figure is being made by joining the same design in reverse position.

44. The design is moving 90° in anti-clockwise direction.

45. The next figure is the reverse of the previous figure.

46. The main design is reversing and the auxiliary design is coming down side.

47. The design is moving 45° in clockwise direction and a new big design is joined.

48. The next design is moving 90° in anti-clockwise direction.

49. The next figure is double of first figure.

50. The problem figure 3 is same as problem figure 2. Thus, the answer figure will be the same in direction as problem figure 1.

61.

2	12, 15, 18
3	6, 15, 9
	2, 5, 3

$$\text{LCM} = 2 \times 3 \times 2 \times 5 \times 3$$
$$= 180 \text{ s or } 3 \text{ min}$$

After 3 min the bells will toll together

i.e., 8 : 35 + 3 min = 8 : 38 am

62.

1	2	3				
×	2	3	4			
	×	3	4	5		
		×	4	5	6	
			×	5	6	7

In the series, left most digit in each term is omitting and the predecessor of the right most digit is appearing.

63. ∵ $\frac{1}{3} = 0.33$

$\frac{1}{2} = 0.50$

∴ In ascending order the numbers will be written as

$$0.25 < 0.33 < 0.50$$

or $$0.25, \frac{1}{3}, \frac{1}{2}$$

64. ∵ Bus left Delhi at = 5 : 30 pm

Reached at = 7 : 36 am

Time from 5 : 30 pm to 12 : 00 pm (midnight)

= 12 : 00 – 5 : 30 = 6 h 30 min

Time from 12 : 00 to 7 : 36 am = 7 h 36 min

∴ Total time = 6 h 30 min + 7 h 36 min

= 14 h 6 min

65. Working hours of 1 day = 8

Working hours of 5 days = 5 × 8 = 40 h

Earning of 1 h = ₹ 15

Earning of 40 h = 15 × 40 = ₹ 600

66. ∵ The side of a square = $\frac{\text{Perimeter}}{4}$

∴ The side of given square = $\frac{48}{4} = 12$ m

∴ Area = Side × Side = 12 × 12 = 144 sq m

67. $80\% = \frac{80}{100} = \frac{8}{10}$

68. As we know,

Dividend = Divisor × Quotient + Remainder

∴ Dividend = 51 × 16 + 27

= 816 + 27 = 843

69. $1 + \frac{1}{10} + \frac{1}{100} + \frac{1}{1000}$

$= 1 + 0.1 + 0.01 + 0.001 = 1.111$

70. 30 = 1 × 30 = 2 × 15

= 3 × 10 = 5 × 6

∴ Factors of 30 are 1, 2, 3, 5, 6, 10, 15, 30.

71. 9, 19, 29, 39, 49, 59, 69, 79, 89 = 9

90, 91, 92, 93, 94, 95, 96, 97, 98 = 9

99 = 2

Total = $\underline{\overline{20}}$

72. Number of questions solved by C = 14

Number of questions solved by D = 10

Total = $\underline{\overline{24}}$

Number of questions solved by A, B and E

= 4 + 8 + 8 = 20

⇒ 24 – 20 = 4

73. 80% of ₹ 240 $= \frac{240 \times 80}{100} =$ ₹ 192

35% of ₹ 400 $= \frac{400 \times 35}{100} =$ ₹ 140

Difference $= (192 - 140) =$ ₹ 52

74. Interest $= \frac{\text{Principal} \times \text{Rate} \times \text{Time}}{100}$

$= \frac{300 \times 6 \times 5}{100 \times 2} =$ ₹ 45

75. The greatest 4 digit number = 9999

The smallest 4 digit number = 1000

Total = 10999

76. Let the number be x and $2x$.

$\therefore \quad x \times 2x = 8192$

$\Rightarrow \quad x \times x = \frac{8192}{2} = 4096$

$\Rightarrow \quad x^2 = 4096$

$\Rightarrow \quad x = \sqrt{4096} \Rightarrow x = 64$

77.

2	30, 36, 90
2	15, 18, 45
3	15, 9, 45
3	5, 3, 15
5	5, 1, 5
	1, 1, 1

LCM $= 2 \times 2 \times 3 \times 3 \times 5 = 180$

```
36) 90 (2
    72
    18) 36 (2
        36
        ×
        18) 30 (1
            18
            12) 18 (1
                12
                6) 12 (2
                   12
                   ×
```

HCF = 6

$\therefore$ Difference $= 180 - 6 = 174$

78. $10 + 4 \div 2 - 3 \times 2 + 4 \div 2 \times 2 - 4$

$= 10 + 2 - 3 \times 2 + 2 \times 2 - 4$

$= 10 + 2 - 6 + 4 - 4$

$= 10 + 2 + 4 - 6 - 4$

$= 16 - 10 = 6$

79. 10345

80. Number of tiles required

$= \frac{\text{Area of floor}}{\text{Area of one tile}}$

$= \frac{3.6 \times 4.5}{0.15 \times 0.15}$

$= \frac{36}{10} \times \frac{45}{10} \times \frac{100}{15} \times \frac{100}{15} = 720$