NUMBER SYSTEMS

Model 1(Digital root method)

133*156

(a) 20748 (b) 20834 (c) 20828 (d) 21838

Model-1

23.5*52*35.6

(a)43503.2 (b) 44503.2 (c) 45503.2 (d) 46504.8

Model 2(Squares)

44^2

(a)2016 (b) 1936 (c) 2945 (d) 2025

Model 3(Unit digit method)

What is the unit digit of 312*513*614*252

(a)8 (b)5 (c) 6 (d) 2

Model 3(Unit digit method)

Find the unit digit of $(156)^{156}$

(a) 4 (b)6 (c) 2 (d) 0

*Model 3(Unit digit method)

What is the last digit of $(4)^{37}$ $-(6)^{38}$

(a) 5 (b)6 (c)0 (d) 8

*Model 4 (Divisibility rules)

Which of the following is divisible by 9?

(a) 1123 (b)1134 (c)2234 (d)2134

*Model 4 (Divisibility rules)

Which of the following is divisible by 24?

(a) 696 (b)693 (c)694 (d)698

*Model 4 (Divisibility rules)

If the number 54*68 is completely divisible by 12 , then the smallest whole number in place of * will be

(a) 5 (b) 7 (c) 2 (d) 9

*Model 5 (Remainder Theory)

Find the remainder of 123^{100} when divided by 122

(a)1 (b) 2 (c) 3 (d) 4

*Model 5 (Remainder Theory)

What will be the remainder when $(756)^{323}$ is divided by 757?

(a) 1 (b) 756 (c) 0 (d) none

*Model 6 (Remainder Theory-2)

What will be the remainder when 1!+2! +3! +……+100! is divided by 6?

(a) 2 (b) 4 (c) 1 (d)0

*Model 6 (Remainder Theory)

A number when divided by 375 leaves 86 as remainder . When the same number is divided by 25 , the remainder will be

(a) 9 (b) 10 (c) 11 (d) none

*Model 6 (Remainder Theory)

The divisor is 10 times the quotient and divisor is 4 times the remainder. If the quotient is 16, the dividend is

(a) 2500 (b) 2200 (c) 2300 (d) 2600

*Model 7 (Factors)

Find the number of factors can be get to the number 120

(a)16 (b) 18 (c) 14 (d) 10

*Model 7 (Factors)

Find the total number of factors of number $N = 5^2 * 6^3 * 3^2$

(a) 12 (b) 24 (c) 72 (d) none

*Model 7 (Factors)

How many consecutive zeros will be there at the end if 200! Is fully expanded

(a)42 (b) 54 (c) 49 (d) none

*Model 8 (HCF & LCM)

Find the LCM of 40 , 50 , 60 ,90

(a)1200 (b) 1800 (c) 900 (d) none

*Model 8 (HCF & LCM)

Find the HCF of 110 , 125 ,180

(a)4 (b) 10 (c) 5 (d) none

*Model 8 (HCF & LCM)

Find the LCM of 2/3 , 4/9 , 5/27

(a)20/5 (b) 20/3 (c) 5/25 (d) none

*Model 8 (HCF & LCM)

The HCF of two numbers is 9 and their LCM is 585 . If one of the numbers is 45 . Find the other

(a) 117 (b) 120 (c) 105 (d) none

*Model 8 (HCF & LCM)

Find the greatest number which on dividing 2434 and 3075 leaves remainders 2 and 3 respectively

(a)210 (b) 150 (c) 160 (d) 128

*Model 8 (HCF & LCM)

If the sum of two numbers is 20 and the HCF and LCM of these numbers are 4 and 24 respectively , then the sum of the reciprocals of the numbers is equal to

(a)24/5 (b) 5/12 (c) 5/24 (d) none

*Model 8 (HCF & LCM)

The traffic lights at three different road crossings change after every 24 seconds , 36 seconds , 45 seconds respectively . If they all change simultaneously at 8 pm , then at what time will they again change simultaneously ?

(a)8:10 pm (b) 8:06 pm (c) 8:12 pm (d) none

*Model 8 (HCF & LCM)

Three different containers contain 320 L , 360 L , 400 L of mixture of milk and water respectively . What biggest measure can measure all the different quantities exactly?

(a) 35 L (b) 38L (c) 40 L (d) none

*Model 9 (Miscellaneous)

A student was asked to multiply a number by 5/4 but he divided that number by 5/4 . His result was 45 less than the correct answer. The number was

(a)100 (b) 80 (c) 90 (d) 110