Number System

Practice Exercise:

Type A: Decimal to fractional Conversion

1. Convert 0.33333……. into a rational no?

a)1/3   b)1/9   c)3/10   d)None of these

2. Convert 0.454545…………. into a rational number?

a)45/100   b)5/11   c)45/90   d)None of these

3. Convert 1.1111111…………….into a rational number?

a)11/10 b)11/9   c)10/9   d)10/90

4. Convert 2.232323……… into a rational number?

a)221/99   b)223/99   c)223/990   d)200/99

5. Convert 0.82686868……..into a rational number?

a)3039/4950   b)3045/4850   c)4093/4950   d)30/321

6. Convert 2.1121212……… into rational number?

a)21121/10000   b)21121/99000   c)20910/9900   d)None of these

7. Convert 9.11111……..into rational number?

a)82/90 b)82/9   c)91/99 d)91/90

8. Convert 4.14444……into rational number?

a)373/90   b)373/85   c)414/100   d)41444/100

9. Convert o.21$\overline{7}$ into rational number?

a)217/1000   b)196/9 c)196/990   d)196/900

10.Convert 3.63$\overline{4}$ into rational number?

a)3271/900   b)3273/900   c)3271/999   d)3634/1000

Type C: Divisibility

1. Find the maximum value of K if the number 1245k72 is divisible by 8?

a)2   b)4   c)6   d)8

2. How many number can come in place of q is the given number 23456q is divisible by 3?

a)1 b)3 c)5 d)7

3. What number must be added to 5361,to make it exactly divisible by 34?

a)9 b)11 c)23 d)32

4. Find the reminder when 86X293X4929 is divided by 13.

a)5 b)7 c)11 d)8

5. A number when divided by 225 leaves a reminder 49.What will be the reminder when the same number is divided by 45?

a)42 b)4 c)39 d)0

6. Find the largest number that always divides the product of 3 consecutive multiples of 4?

a)8 b)32 c)48 d)384

7. What is the value of M and N respectively? If M39048458N is divisible by 8 and 11; where M and N are single digit integers?

a)7, 8 b)8, 6 c)6, 4 d)5, 4

8. If a five digit number 'm21n2' is divisible by 24 then the maximum number of possible combinations of m and n:

a)4 b)9 c)16 d)10

9. $(392)^n - (392)^{n-1}$ is not divisible by:

a)56 b)23 c)13 d)17

10. How many natural numbers upto 990 are divisible by 5 & 9 both but not by 7 ?

a)18 b)19 c)22 d)none of a,b,c

Type E: Factorials

1. Find unit digit in 256!?

a)6 b)8 c)0 d)2

2. Find the highest power of 7 in 100!?

a)14 b)16 c)18 d)13

3. Find the highest power of 4 in 23!?

a)6 b)7 c)8 d)9

4. What will be the value of 6!/5!?

a)1! b)5! c)6! d)6

5. Find the number of zero in 20! ?

a)2   b)4   c)5   d)6

6. Find the value of $(n+6)! / (n+4)!$

a)n+6   b)$n^2+11n+25$ c)(n+6)(n+5)(n+4) d)None of these

7. Find the number of zeros in 50!?

a)10   b)5   c)12   d)16

8. Find the largest power of 5 that can divide 125!?

a)25   b)30   c)31   d)27

(Direction for 9-10):- Let a = 1! + 2! + 3! + ... 99! + 100!

9. Find the reminder, when 'a' is divided by the product of first 7 natural numbers
a) 873   b) 746   c) 912   d) 413

10. Find the last two digits of 'a'
a) 3   b) 9   c) 13   d) 19