

Number System

Practice Exercise:

Type F: Cyclicity

1. Find the unit digit in the product of $646 \times 252 \times 119$?

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

2. Find the unit digit of $(23)^{65}$?

- a)5 b)9 c)3 d)7

3. Find the unit digit of $10!/100$?

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

4. Number of Zeros at the end of $(2^{26} - 2^{25} - 2^{24}) \times (3^{98} - 3^{97} - 3^{96})$

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

5. The product of three consecutive number is 3360. What is the least number?

- a)17 b)14 c)13 d)16

6. Find the unit digit of $(2^3)^4 \times (9^{10})^{11} \times (4^5)^6 \times (6^7)^8$?

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

7. What is the total number of digit printed if a number written from 1 to 150?

- a)262 b)342 c)360 d)450

8. The unit digit of $(12345k)^{72}$ is 6. The value of K is:

- a)6 b)8 c)2 d)All of these

9. The unit digit of $(316)^{3 \cdot 4n} + 1$ is:

- a)4 b)5 c)1 d)7

10. Find the remainder of 7^{111} is divided by 4.

- a)2 b)3 c)5 d)6

Type G: Remainder

1. If $(1! + 2! + 3! + 4! + \dots + 100!)$ when divided by 4 would leave a remainder-

- a)0 b)1 c)2 d)2 or 3

2. Find the remainder when $(258)^{600}$ is divided by 256?
a)1 b)2 c)31 d)None of these
3. Find the remainder of $2^{333} / 3^2$?
a)1 b)2 c)4 d)8
4. Find the remainder when 12^9 is divided by 5.
a)2 b)3 c)4 d)1
5. Find the remainder when $1!+2!+3!+4!+\dots+92!$ is divided by 8?
a)1 b)5 c)4 d)3
6. What is the remainder of $6^{36}/215$?
a)0 b)1 c)2 d)none of these
7. The remainder when $(12^{13} + 23^{13})$ is divided by 11:
a)0 b)1 c)2 d)None of these
8. When we divide 15192327 by 99 the remainder will be:
a)98 b)84 c)30 d)none of these
9. The remainder when $(20)^{23}$ is divided by 17 is:
a)11 b)3 c)6 d)can't be determine
10. The remainder when 2^{39} is divided by 39 is:
a)0 b)2 c)8 d)1