NUMBER SYSTEM-2_QUESTIONS

1. Which of the following can't be the unit digit of a perfect square?
(A) 4 (B) 8
(C) 9 (D) 6

2. What is the unit digit of $71 \times 72 \times 73 \times 75 \times 79$?
(A) 9 (B) 1
(C) 0 (D) 7

3. What is the unit digit of the sum of first 111 whole numbers?
(A) 4 (B) 6
(C) 5 (D) 0

4. Find the unit place of $\frac{12^{55}}{3^{11}} + \frac{8^{48}}{16^{18}}$
(A) 5 (B) 7
(C) 9 (D) 0

5. What is the unit digit of 2^{51}?
(A) 2 (B) 8
(C) 1 (D) 4

6. Find the last digit of $32^{32^{32}}$?
(A) 2 (B) 8
(C) 6 (D) 4

7. Find the number of zeroes at the end of 400!
(A) 23 (B) 98
(C) 99 (D) 76

8. Find the number of zeroes at the end of the product $1^1 \times 2^2 \times 3^3 \times 4^4 \times \ldots\ldots\ldots \times 10^{10}$
(A) 5 (B) 10
(C) 20 (D) 15

9. Find the number of zeroes at the end of $2 \times 4 \times 6 \times 8 \times \ldots\ldots\ldots\ldots \times 360$?
(A) 20 (B) 44
(C) 38 (D) 180

10. Find the number of zeroes at the end of the product $10^1 \times 10^2 \times 10^3 \times 10^4 \times \ldots\ldots\ldots \times 10^{10}$
(A) 50 (B) 40
(C) 55 (D) 45

11. Find the no. of zeroes at the end of the product of $2^{222} \times 5^{555}$.
(A) 555 (B) 222
(C) 777 (D) 333

12. When a number is divided by 387, the remainder is 48. What will be the remainder when it is divided by 43?
(A) 0 (B) 5
(C) 3 (D) 35

13. The least number which must be added to 2055 to make it exactly divisible by 27 is:
(A) 28 (B) 24
(C) 27 (D) 31

14. If 78*3945 is divisible by 11, where * is a digit then * is equal to:
(A) 1 (B) 3
(C) 0 (D) 5

15. Two numbers, when divided by 17, leaves remainder 13 and 11 respectively. If the sum of those two numbers is divided by 17, the remainder will be:
(A) 13 (B) 11
(C) 7 (D) 4

16. Which of the following number will always divide a six-digit number of the form xyxyxy (where $1 \le x \le 9, 1 \le y \le 9$)?
(A) 1010 (B) 10101
(C) 11011 (D) 11010

17. What is the remainder when 23^3+31^3 is divided by 54?
(A) 0 (B) 3
(C) 1 (D) 4

18. **$(2^{71}+2^{72}+2^{73}+2^{74})$ is divisible by:**
(A) 10 (B) 9
(C) 13 (D) 11

19. **How many numbers are there from 200 to 800 which are divisible by neither 5 nor 7?**
(A) 410 (B) 413
(C) 407 (D) 411

20. **If a nine-digit number 985x3678y is divisible by 72, then the value of (4x – 3y) is:**
(A) 5 (B) 4
(C) 6 (D) 3