

Refresher test

Q1. How many of the integers 1, 2,, 120 are divisible by none of 2, 5 and 7?

- (a) 40 (b) 41 (c) 42 (d) 43

Q2. When 2^{256} is divided by 17, then remainder would be equal to:

- (a) 1 (b) 14 (c) 16 (d) None of these

Q3. What is the remainder when $(13^{100} + 17^{100})$ is divided by 25?

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

Q4. A number when divided by 18 leaves a remainder 7. The same number when divided by 12 leaves a remainder n. How many values can n take?

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

Q5. How many positive integers are there from 0 to 1000 that leave a remainder of 3 on division by 7 and a remainder of 2 on division by 4?

- (a) 19 (b) 24 (c) 32 (d) 36 (e) None of these

Q6. Consider a large number $N = 1234567891011121314.....979899100$. What is the remainder when first 100 numbers of N is divided by 16?

- (a) 0 (b) 5 (c) 12 (d) 15

Q7. The two specific numbers are in the ratio 6:7, if the HCF of the given numbers is 30, what will be the numbers?

- (a) 160, 180 (b) 180, 210 (c) 200, 160 (d) None of these

Q8. Find the remainder when $67^{67} + 67/68$

- (a) 1 (b) 2 (c) 66 (d) 67

Q9. Find the remainder when $1! + 2! + 3! + 4! +100!/5$

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

Q10. How many numbers up to 1000 are divisible by 2, 3, and 5.

- (a) 31 (b) 32 (c) 33 (d) None of these

Answer key

1	B	3	C	5	D	7	B	9	D
2	A	4	C	6	D	8	C	10	C