

# 1. REAL NUMBERS

## 1 MARK QUESTIONS

Q1. The smallest odd composite number is

- (a) 5    (b) 3    (c) 7    (d) 9

Q2. The values of remainder  $r$ , when a positive integer  $a$  is divided by 3, are 0 and 1 only. Is this statement true or false.

Q3. The product of the HCF and LCM of two prime numbers  $a$  and  $b$  is equal to

- (a)  $a$     (b)  $b$     (c) 1    (d)  $ab$

Q4. The number of terms from 1 to 1000 divisible by 7 are

- (a) 142    (b) 143    (c) 144    (d) 141

Q5. Given positive integers  $a$  and  $b$ , there exists unique integers  $q$  and  $r$  satisfying  $a = bq + r, 0 \leq r < b$ . This statement is known as ....

Q6. A number when divided by 53 gives 34 as quotient and 21 as a remainder. Find the number.

Q7. Find the smallest number by which  $\frac{891}{3500}$  must be multiplied to make it a terminating decimal.

Q8. Factorize the number 98 through factor tree.

Q9. If  $n$  is a natural number, then find the ending digit  $9^n - 5^n$ .

Q10. If the HCF of 85 and 153 is expressible in the form of  $85m - 153$ , then find the value of  $m$ .

Q11. The maximum number of students among whom 1001 pens and 910 pencils can be distributed in such a way that each student gets the same number of pens and same number of pencils is

- (a) 91    (b) 910    (c) 1001    (d) 1911

Q12. Find the value of  $k$  for which the following system of equations  $x + y - 4 = 0$  and  $2x + ky - 3 = 0$  has no solution.

Q13. The sum of two numbers is 33 and their difference is 17. Find the numbers.

Q14. If the HCF of 65 and 117 is expressible in the form  $65m - 117$ , then find the value of  $m$ .

Q15. The HCF of prime number is ....

Q16. The least number that is divisible by all the numbers from 1 to 10 (both inclusive) is .....

Q17. The sum of all integers between 50 and 350 which end with 1, is...  
(a) 4566      (b) 4877      (c) 5589      (d) 5880

Q18. Explain why  $7 \times 11 \times 13 + 13$  is a composite number?

ANSWERS

Q1. 9    Q2. False    Q3. 4    Q4. a    Q5. Euclid's Division Lemma

Q6. 1823    Q7. 7    Q8.  $2 \times 7^2$     Q9. 4 or 6    Q10. 2

Q11. a    Q12. 2    Q13. 25 and 8    Q14. 2    Q15. 1

Q16. 2520    Q17. d    Q18.n/a