NUMBER SYSTEM [PRACTICE QUESTIONS]

1. Which of these is a co-prime pair?
A.12, 18 **B**.21, 33 **C**.39, 63 **D**.22, 35

2. The sum of two numbers is 15 and their geometric mean is 20% lower than their arithmetic mean. Find the numbers.
A.11, 4 **B**. 12, 3 **C**. 13, 2 **D**. 10, 5 **E**. 9, 6

3. The difference between two numbers is 48 and the difference between the arithmetic mean and the geometric mean is two more than half of 1/3 of 96. Find the numbers.
A. 49, 1 **B**. 12, 60 **C**. 50, 2 **D**. 36, 84 **E**. None of these

4. If A381 is divisible by 11, find the value of the smallest natural number A?
A. 5 **B**. 6 **C**. 7 **D**. 9 **E**. None of these

5. What will be the remainder obtained when (94+1) will be divided by 8?
A. 0 **B**. 3 **C**. 7 **D**. 2 **E**. 1

6. Find the ratio between the LCM and HCF of 5, 15 and 20?
A. 8: 1 **B**. 14: 3 **C**. 12: 2 **D**. 12: 1 **E**. 1: 12

7. Find the HCF ad LCM of the polynomials $(x^2–5x+6)$ and $(x^2–7x+10)$.
A. (x-2), (x-2) (x-3) (x-5) **B**. (x-2), (x-2) (x-3) **C**. (x-3), (x-2) (x-3) (x-5)
D. (x-2), (x-2) (x-3) $(x-5)^2$ **E**. None of these

8. The LCM of 5, 8, 12, 20 will not be a multiple of?
A. 3 **B**. 9 **C**. 8 **D**. 5 **E**. None of these

9. Find the number of divisors of 720 (including 1 and 720)
A. 25 **B**. 28 **C**. 29 **D**. 30 **E**. 32

10. The LCM of $(16 – x^2)$ and $(x^2 + x – 6)$ is
A. $(x - 3) (x + 3) (4 – x^2)$ **B**. $4 (4 - x^2) (x + 3)$ **C**.$(4-x^2)(x-3)$
D. (4 - x) (x-3) **E**. None of these

11. The product of three consecutive natural numbers, the first of which is an even number, is always divisible by
A. 12 **B**. 2 **C**.6 **D**. All of these **E** None of these

12. Some birds settled on the branches of a tree. First they sat on to a branch and there was one bird too many. Next they sat two to a branch and there was one branch too many. How many branches were there?

A. 3 **B**. 4 **C**. 5 **D**. 6 **E**. 2

13. The square of a number greater than 1000 that is not divisible by three, when divided by three, leaves a remainder of

A. 1 Always **B**. 0 always **C**. 2 **D**. Either A or B **E**. Cannot be said

14. If $2 < x < 4$ and $1 < y < 3$, then find the ratio of the upper limit for $x + y$ and the lower limit of $x – y$.

A.6 **B**.7 **C**.8 **D**.4 **E**. None of these

15. The sum of the squares of the digits constituting a positive two digit number is 13. If we subtract 9 from that number, written by the same digits in the reverse order. Find the number?

A.12 **B**.32 **C**.42 **D**.52 **E**.23

16. Find the pairs of the natural number whose least common multiple is 78 and the greatest common divisor is 13.

A. 58 and 13 or 16 and 29 **B**. 68 and 23 or 36 and 49 **C**. 18 and 73 or 56 and 93 **D**. 78 and 13 or 26 and 39

17. Find the two natural numbers whose sum is 85 and the least common multiple is 102.

A. 30 and 55 **B**. 17 and 68 **C**. 35 and 55 **D**. 51and 34 **E**. None of these

18. Three mangoes, four guavas and five watermelons cost Rs. 750. Ten watermelons, six mangoes and 9 guavas cost 1580. What is the cost of six mangoes, ten watermelons and 4 guavas?

A. 1280 **B**. 1180 **C**. 1080 **D**. Cannot be determined

19. Find the least number, which must be subtracted from 7147 to make it a perfect square.

A.86 **B**.89 **C**.91 **D**.93

20. Find the least square number which is divisible by 6, 8 and 15

A.2500 **B**.3600 **C**.4900 **D**. 4500

1	2	3	4	5	6	7	8	9	10
D	B	A	C	C	D	A	B	D	E
11	12	13	14	15	16	17	18	19	20
D	A	D	B	B	D	D	A	C	B