NUMBER SYSTEM

1.How many of the following numbers are divisible by 3 but not by 9.

4320, 2343, 3474, 4131, 5286, 5340, 6336, 7347, 8115, 9276?

A.5 B.6 C.7 D.NONE

2. The difference between the squares of two consecutive odd integers is always divisible by:

A.6 B.7 C.9 D.8

3.If p and q are the two digits of the number 653pq such that this number is divisible by 80, then p+q is equal to :

A.3 B.5 C.2 D.6

4. A 3-digit number 4p3 is added to another 3-digit number 984 to give the four-digit number 13q7, which is divisible by 11. Then, (p + q) is :

A.10 B.11 C.12 D.15

5. What should be the maximum value of Q in the following equation?
5P9 – 7Q2 + 9R6 = 823

A.5 B.6 C.8 D.9

6.Find the sum to 200 terms of the series 1 + 4 + 6 + 5 + 11 + 6 + ...?

A.30,200 B.29,800 C.21,000 D.28,000

7.If $-1 \leq a \leq 2$ and $1 \leq b \leq 3$, then least possible value of (2a – 3b) is:

A.-11 B.-20 C.-5 D.-8

8. A girl multiplies 987 by a certain number and obtains 559981 as her answer. If in the answer, both 9's are wrong but the other digits are correct, then the correct answer will be

A.555181 B.555681 C.555213 D.555621.

9. One-quarter of one-seventh of a land is sold for Rs. 30,000. What is the value of an eight thirty-fifth of land?

A.1,92,000 B.1,98,400 C.1,18,900 D.1,89,300

10. If the number 653ab is divisible by 90, then (a + b) = ?

A.2 B.3 C.4 D.5

11. What is the number in the unit place in $(729)^{59}$?

A.1 B.6 C.5 D.9

12. $(y^n - b^n)$ is completely divisible by (y - b), when

A. n is any whole number.

B. n is any natural number.

C. n is a prime number.

D. n is any odd number.

13. How many prime numbers exist in $6^7 \times 35^3 \times 11^{10}$?

A.28 B.29 C.30 D.31

14. The difference between two numbers is 2395. When the larger number is divided by the smaller one, the quotient is 6 and the remainder is 15. The smaller number is:

A.129 B.239 C.476 D.546

15. If x is a whole number, then $x^2(x^2 - 1)$ is always divisible by:

A.12-X B.multiple of 12 C.12 D.24

16. How many terms are there in 2, 4, 8, 16,..., 1024?

A.10 B.12 C.13 D.14

17. The digit in unit's place of the product 71 × 72 × ..... × 79 is

A.1 B.2 C.3 D.0

18. Which of the following number should be added to 11158 to make it exactly divisible by 77?

A.5 B.6 C.1 D.7

19. Find the number of factors of 9321.

A.3 B.6 C.8 D.16

20. What is the rightmost integer of the expression :

$65776^{759} + 54697^{467}$.

A.3 B.4 C.7 D.9