Number System Assignment – 2 (Classification)

Q.1: If 0.abcabc…= 27/33, find the sum a + b + c.

A. 18   B. 21   C. 24

D. 17   E. None of these

QUE.2: a and b are two single digit natural numbers such that 0.abab…….× n is a -ve integer value for all values of a and b. What is the maximum tnumber that n can be?

A. -990   B. -999   C. 0   D. -198   E. -99

Que.3: a ,b, and c are three single digit natural numbers such that 0.abcabc…….×n is a negative integer value for all values of a , b and c. What is the least number that n can be?

A. 990   B. 99   C. -990   D. 198   E. CBD

Que.4: a ,b, c and d are four single digit natural numbers such that 0.abcdabcd…….× n is a +ve integer value for all values of a , b , c and d. What is the least number that n can be?

A. 9900   B. 9999   C. -9900   D. -9999   E. CBD

Que.5 : a ,b, c and d are four single digit natural numbers such that 0.abcdabcd…….× n is a non +ve integer value for all values of a , b , c and d. What is the highest number that n can be?

A. 9900   B. 9999   C. -9900   D. -9999   E. 0

Qus.6 : (0.77777……..)a + (0.777777………..)b = (0.66666…………)c, where a, b, c are distinct natural numbers, and also c is a multiple of 343. Find the possible number of ordered triplets (a, b, c), when value of 'c' is minimum.

(A) 342   (B) 393   (C) 292   (D) 293

Que.7: (0.555555……..)a + (0.55555………..)b = (0.33333…………)c, where a, b, c are distinct natural numbers, and also c is a multiple of 500. Find the possible number of ordered triplets (a, b, c), when value of 'c' is minimum.

(A) 345   (B) 300   (C) 298   (D) 299

Q.8: Classify the following numbers as rational or irrational:

(i) √23 - **IR**

(ii) √225-**R**

(iii) 0.3796-**R**

(iv) 7.478478-**R**

(v) 1.101001000100001…-**IR**