DATE: __/__/____
PAGE _____

Number System Assignment-2.

Q1 $x = 0.abcabc\ldots = \frac{27}{33}$

$1000x = abc.abcabc.$

$x = \frac{abc}{999} = \frac{27}{33}$ 11

333

Q1 $x = 0.abcabc$

$1000x = abc.abcabc.$

$\frac{abc}{999} = \frac{27}{33}$ 9

11

$abc = 818 =$ $8+1+8 = 17$ (D)

$abc =$

33 | 999

1 unit = 33

27 unit = 891

$\frac{891}{999}$ (A)

1 unit = 33

27 unit = 891

DATE: / /
PAGE

Q2 $x = 0.abab\ldots \times n$ is a +ve integer.

$x = \frac{ab}{99} \times n$

$n = 99K$

(C). $K = 1, 99$ ✓ ab two digit no. hai

Q3 a, b, c three digit no.

$0.abcabc\ldots \times n.$

$\frac{abc}{999} \times n$ (CBD) (C)

↳ least no. mei koi bhi le sake.

Q4 $x = \frac{abcd}{9999} \times n$ $n = 9999K$

✓ $K = 1, n = 9999$

Q5 $x = \frac{abcd}{9999} \times n.$ ($n = 0$) (C)

Q6 $\frac{7}{9}a + \frac{7}{9}b = \frac{6}{9}c.$

$c = 343.$

$7a + 7b = 6c.$ 1, 2983.

$a + b = \frac{6}{7}c$

$\frac{6}{7} \times 343$ (49)

294.

293, 1

(292 pairs)

GOOD WRITE

DATE: __/__/____
PAGE _____

Q7 $\frac{5}{9}a + \frac{5}{9}b = \frac{3}{9}c$

$a + b = \frac{3}{5}c$

$\frac{3}{5} \times 500 = 300$

1, 299
:
298 pairs.
:
299, 1

Q8 $\sqrt{23}$ → Irrational

$\sqrt{225}$ = 15 → Rational.

0.3796 → Rational.

7.478478 → Rational.

1.101001000100000..... ∞ Irrational.