Real Numbers : Worksheet -11

I.

1. The decimal expansion of $\frac{189}{125}$ will terminate after: [ ]

   [A] 1 place of decimal [B] 2 places of decimal
   [C] 3 places of decimal [D] 4 places of decimal

2. The decimal representation of $\frac{93}{1500}$ will be: [ ]

   [A] terminating [B] non-terminating
   [C] non-terminating repeating [D] non-terminating but non-repeating

3. The H.C.F. of $3^3 \times 5$ and $3^2 \times 5^2$ is: [ ]

   [A] 45 [B] 25 [C] 675 [D] 135

4. The product of a non-zero rational number and an irrational number is: [ ]

   [A] always irrational [B] always rational
   [C] rational or irrational [D] one

5. The product of two irrational numbers is: [ ]

   [A] always rational [B] always irrational
   [C] one [D] always a non-zero number

6. If a is an odd number, b is not divisible by 3 and LCM of a and b is p then LCM of $3a$ and $2b$ is: [ ]

   [A] p^2 [B] $5p$ [C] $6p$ [D] $3p$

II.

1. $\left(\sqrt{5}+\sqrt{2}-\sqrt{7}\right)$ is: [ ]

   [A] a natural number [B] an integer
   [C] a rational number [D] an irrational number

2. $(-1)^n+(-1)^{8n}=0$, when n is: [ ]

   [A] any positive integer [B] any odd natural number
   [C] any even natural number [D] any negative integer

3. If p is a prime number, then LCM of p, p^2 *and* p^3 is: [ ]

   [A] p [B] p^3 [C] p^2 [D] p^6

4. Decimal expansion of $\frac{3}{2^3 5^2}$ will be: [ ]

   [A] terminating [B] non-terminating

   [C] non-terminating and repeating [D] non-terminating but non-repeating

5. Which of the following cannot be expressed in the form of $\frac{p}{q}$, where p and q are integers and $q \neq 0$ is: [ ]

   [A] 0.45 [B] 0.3232..... [C] 0.10203000.... [D] 2.5

6. $n^2 - 1$ is divisible by 8, if n is: [ ]

   [A] an integer [B] natural number

   [C] an odd number [D] an even number