

**NUMBER SYSTEMS****INTRODUCTION OF NUMBER SYSTEM****EXERCISE**

- Q.1** Is zero a rational number? can you write it in the form  $\frac{p}{q}$ , where p and q are integers and  $q \neq 0$ ?
- Q.2** Find five rational numbers between  $\frac{3}{5}$  and  $\frac{4}{5}$ .
- Q.3** Find six rational numbers between 3 and 4.
- Q.4** Are the following statement true or false? Give reasons for your answer.
- (i) Every natural number is a whole number.
  - (ii) Every integer is a whole number.
  - (iii) Every rational number is a whole number.
- Q.5** Find 3 irrational numbers between 3 & 5.
- Q.6** Every point on the number line corresponds to a ..... number which may be either ..... or .....
- Q.7** The common fraction equivalent to 0.09375 is .....
- Q.8** The common fraction equivalent to  $0.\overline{4312}$  is .....
- Q.9** Every real number is either ..... number or ..... number.
- Q.10** A number of three digits has for its middle digit, the sum of the other two digits. Then the number must be a multiple of 11.

**Q.11** If  $u = x^2 - y^2$  is an even number, where  $x$  and  $y$  are whole numbers, then  $u$  must be a multiple of 4.

### ANSWER KEY

1.  $\frac{0}{1} = \frac{0}{2} = \frac{0}{3}$  etc
2.  $\frac{5}{8}, \frac{13}{20}, \frac{7}{10}, \frac{31}{40}, \frac{27}{40}$
3.  $\frac{15}{8}, \frac{13}{4}, \frac{27}{8}, \frac{7}{2}, \frac{29}{8}, \frac{15}{4}$ .
4. (i) True,  
(ii) False,  
(iii) False,
5. 3.127190385..... ,3.212325272930..... ,3.969129852937.....
6. real, rational number, an irrational number
7.  $\frac{3}{32}$
8.  $\frac{718}{166}$
9. rational, irrational
10. True
11. True