

CBSE TEST PAPER-02  
CLASS - IX MATHEMATICS (Number System)

- 1) Write  $\frac{1}{7}$  in decimal form. Using it find the value of  $\frac{2}{7}$  and  $\frac{3}{7}$
- 2) Represent  $1.\overline{23}$  in rational form.
- 3) Write a rational and irrational number between  $\sqrt{2}$  and  $\sqrt{2.1}$
- 4) Write a rational and irrational number between  $0.333$  and  $\frac{1}{3}$
- 5) Rationalise the denominator (i)  $\frac{1}{\sqrt{3} + \sqrt{2}}$  (ii)  $\frac{1}{2\sqrt{3} - 3\sqrt{2}}$  (iii)  $\frac{1}{\sqrt{2} + \sqrt{3}}$
- 6) Represent  $1.\overline{23}$  on number line by successive magnification
- 7) Prove that (i)  $\pi$  is an irrational number (ii)  $2+\sqrt{3}$  is an irrational number
- 8) Represent  $\sqrt{2.5}$  on number line.
- 9) Rationalise the denominator (i)  $\frac{1}{\sqrt{4} + \sqrt{3}}$  (ii)  $\frac{1}{\sqrt{3} + \sqrt{2} - \sqrt{5}}$  (iii)  $\frac{1}{1 + \sqrt{2} - \sqrt{3}}$
- 10) Represent  $1.235$  on number line by successive magnification
- 11) Represent  $\sqrt{9.3}$  on number line
- 12) Represent  $0.9\overline{3}$  in rational form
- 13) Simplify  $2\sqrt[3]{4} + 7\sqrt[3]{32} - \sqrt[3]{500}$
- 14) Rationalize  $\frac{y^2}{x^2 + y^2 + x}$
- 15) If  $x=9+4\sqrt{5}$  Find value of  $\sqrt{x} - \frac{1}{\sqrt{x}}$