LOYOLA SCHOOL, BHUBANESWAR

1st Class Evaluation, July - 2025

Class: IX	**Sub: Mathematics**	**F.M. = 20**	**Time: 40 mins**

Question 1 **[6 x 1 = 6]**

(i) The set of rational number is denoted by

(a) R (b) $\overline{R}$ (c) Q (d) $\overline{Q}$

(ii) A rational number $\frac{a}{b}$ is negative, if a is negative, then b is

(a) negative (b) positive
(c) both (a) and (b) (d) none of these

(iii) Two rational numbers $\frac{p}{q}$ *and* $\frac{r}{s}$ are equal, if

(a) pxs = qxr (b) pxq = rxs
(c) pxr = qxs (d) none of these

(iv) The least rationalizing factor of $2\sqrt{125}$ is .

(a) $\sqrt{125}$ (b) $5\sqrt{5}$
(c) $\sqrt{5}$ (d) $10\sqrt{5}$

(v) If $x = \sqrt{2} - 1$, then $\left(x - \frac{1}{x}\right)^2$ is

(a) $2\sqrt{2}$ (b) 2
(c) 4 (d) $2 - \sqrt{2}$

(vi) C.I of 1st year is greater than S.I of 1st year

(a) correct (b)incorrect
(c) both (a) and (b) (d) none of these

Question 2 **[3 x 2 = 6]**

(a) Calculate the compound interest for the second year on Rs 8000 invested for 3 years at 10% per nnum.

(b) Find the values of 'a' and 'b' of : $\frac{\sqrt{7}-2}{\sqrt{7}+2} = a\sqrt{7} + b$.

Question 3 **[4 x 2= 8]**

(a) Find the compound interest on Rs 4000 accrued in three years, when the rate of interest is 8% for the first year and 10% for the second year and the third year.

(b) If $x = 2\sqrt{3} + 2\sqrt{2}$, find : (i) $\frac{1}{x}$ (ii) $\left(x + \frac{1}{x}\right)^2$

**************************ALL THE BEST**************************