NUMBER SYSTEM

CONVERSION OF RATIONAL NUMBERS INTO DECIMAL

EXERCISE

Q.1 Convert $\frac{35}{16}$ into decimal form by long division method.

Q.2 Express $\frac{2157}{625}$ in the decimal form.

Q.3 Express $\frac{-17}{8}$ in decimal form by long division method.

Q.4 Find the decimal representation of $\frac{8}{3}$.

Q.5 Express $\frac{2}{11}$ as a decimal fraction.

Q.6 Find the decimal representation of $\frac{-16}{45}$

Q.7 Find the decimal representation of $\frac{22}{7}$.

Q.8 Express the rational number $\frac{1}{27}$ in recurring decimal form by using the recurring decimal expression of $\frac{1}{3}$. Hence write $\frac{59}{27}$ in recurring decimal form.

Q.9 Express $\frac{1}{37}$ in decimal form and hence write the decimal expansion of $\frac{79}{37}$.

Q.10 By taking $\pi = 3.141$ and $\sqrt{2} = 1.414$, evaluate $\frac{2\pi + 3\sqrt{2}}{5}$ upto three places of decimals.

ANSWER KEY

1. $\frac{35}{16} = 2.1875$

2. $\frac{2157}{625} = 3.4512$

3. $\frac{-17}{8} = -2.125$

4. $\frac{8}{3} = 2.6666\ ... = 2.\overline{6}$

5. $\frac{2}{11} = 0.181818 ..... = 0.\overline{18}$

6. $\frac{-16}{45} = -0.3\overline{5}$

7. $\frac{22}{7} = 3.142857142857 ..... = 3.\overline{142857}$

8. $0.\overline{037}, 2.\overline{185}$

9. $0.\overline{027}, 2.\overline{135}$,

10. 2.105 (approx)