

26-5-2024

C.W

Unit 2

Ex 2.1

Q1

i) 0.00053407

= 5.3407×10^{-4} Ans.

ii) 53400000

= 5.34×10^7 Ans

iii) 2.5326

= 2.5326×10^0 Ans

iv) 0.0000000012

= 1.2×10^{-10} Ans

iii) 6.53×10^{-6}

= 0.00000653 Ans.

iv) 3.1415×10^9

= 3141500000. Ans

Q2

i) 9.067×10^{-5}

00009067

ii) 5.64×10^0

Q3 Simplify the following by converting into the form indicated.

i) $\underline{563.71} \times 10^{-3} \times \underline{2.54} \times 10^4 \longrightarrow$ Scientific notation

$$= 1431.8234 \times 10^{-3+4}$$

$$= 1431.8234 \times 10^1$$

$$= \underline{14318234} \times 10^{\frac{1}{10}} \times 10^3$$

$$= \underline{1.4318234} \times 10^4 \text{ Ans.}$$

i) $\frac{0.023 \times 10^5}{10^{-3}} \longrightarrow$ standard notation.

$$= 2.3 \times 10^5 \times 10^3 \times 10^{-2}$$

$$= 2.3 \times 10^8 \times 10^{-2}$$

$$= \underline{2.3 \times 10^6} \text{ Ans.}$$

$$= \underline{2300000} \text{ Ans.}$$

iii) $\frac{2.549 \times 5067 \times 10^{-3}}{10^3} \longrightarrow$ scientific notation

$$= 12915.783 \times 10^{-3} \times 10^{-3}$$

$$= 1.2915783 \times 10^{-6} \times 10^4$$

$$= \cancel{1.2915} 1.2915783 \times 10^{-2} \text{ Ans.}$$

iv) $0.0009988 \times 10^{10} \longrightarrow$ standard notation

$$= 9.988 \times 10^{-4} \times 10^{10}$$

$$= 9.988 \times 10^6$$

$$= 9.988 \times 10^6 = 9.99988000 \text{ Ans.}$$