

26-5-2024

L.W

Unit 2

Ex 2.1

Q1

i) 0.00053407

= 5.3407×10^{-4} Ans.

ii) 534000000

= 5.34×10^7 Ans

iii) 2.5326

= 2.5326×10^0 Ans

iv) 0.00000000012

= 1.2×10^{-11} 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) $563.71 \times 10^{-3} \times 2.54 \times 10^4$ $\xrightarrow{\text{scientific notation}}$

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

$$= 1431.8234 \times 10^1$$

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

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

ii) $\frac{0.023 \times 10^5}{10^{-3}}$ $\xrightarrow{\text{standard notation}}$

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

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

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

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

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

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

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

iv) 0.0009988×10^{10} \longrightarrow standard notation.

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

$$= 9.988 \times 10^6$$

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