



DPP – 9 [Units and Measurements]

Chapter: Some Basic Concepts of Chemistry

“The difference between average and confident students is assignment completion”

TYPE 1 : SI Units & Basic Definitions

Q.1 Which one of the following forms part of seven basic SI units?

- (1) Joule (2) Candela (3) Newton (4) Pascal

Q.2 Numerical prefix used for 10^{12} is [NCERT Pg. 9]

- (1) Giga (2) Tera (3) Peta (4) Exa

TYPE 2 : Unit Conversion

Q.3 20 dm^3 converted into mL is

- (1) 2×10^4 mL (2) 2×10^3 mL (3) 2×10^5 mL (4) 2×10^2 mL

Q.4 59 F converted into $^{\circ}\text{C}$ is

- (1) 15°C (2) 32°C (3) 27°C (4) 10°C

Q.5 2 atm converted into cm of Hg is

- (1) 152 cm (2) 76 cm (3) 304 cm (4) 38 cm

Q.6 2 litre atmosphere converted into erg is

- (1) 202.6×10^7 erg (3) 404.6×10^7 erg
(2) 101.3×10^7 erg (4) 50.65×10^7 erg

TYPE 3 : Significant Figures — Counting

Q.7 The number 0.00001465 can be correctly expressed in scientific notation as [NCERT Pg. 11]

- (1) 146.5×10^{-6} (3) 1.465×10^{-5}
(2) 146.5×10^{-3} (4) 1.465×10^{-4}

Q.8 Counting numbers of objects, for example 4 balls and 10 eggs have

[NCERT Pg. 12]

- (1) One and two significant figures respectively
- (2) One significant figure in both
- (3) Infinite significant figures in both
- (4) Two significant figures in both

Q.9 Given the numbers: 161 cm, 0.161 cm, 0.0161 cm. The number of significant figures for the three numbers is

- (1) 3, 3 and 4 respectively
- (2) 3, 4 and 4 respectively
- (3) 3, 4 and 5 respectively
- (4) 3, 3 and 3 respectively

Q.10 The number of significant figures in 2.653×10^4 is

- (1) 8 (2) 4 (3) 7 (4) 1

Q.11 In which of the following measurements, the number of significant figures is infinite?

- (1) A sample of orange juice contains 0.0108 g of vitamin C
- (2) A single hair has mass 0.0050060 g
- (3) The distance between two points was found to be 5.030×10^2 m
- (4) In a bicycle race, 110 riders started but only 60 finished

Q.12 Number of significant figures in 6.62×10^{-34}

- (1) Two (2) Three (3) Four (4) One

TYPE 4 : Significant Figures — Rounding & Operations

Q.13 6.608792 expressed to four significant figures is

- (1) 6.608 (2) 6.609 (3) 6.610 (4) 6.607

Q.14 42.392800 expressed to four significant figures is

- (1) 42.39 (2) 42.40 (3) 42.38 (4) 42.4

Q.15 The sum of 3.368 kg and 2.02 kg expressed to correct significant figures is

- (1) 5.388 kg (2) 5.39 kg (3) 5.4 kg (4) 5.388 kg

Q.16 Add $(0.001 + 0.02)$ upto correct number of significant figures

- (1) 0.021 (2) 0.02 (3) 0.003 (4) 0.001

Q.17 The multiple 5×0.2 after rounding off will be

- (1) 1 (2) 1.0 (3) 1.00 (4) 1.000

Q.18 Round off 0.1576 upto one digit after decimal

- (1) 0.1 (3) 0.2
(2) 1.6×10^{-1} (4) 1.6

Q.19 The value of $\frac{5.86 \times 3.96}{2.86}$ will be equal to

- (1) 8 (2) 8.1 (3) 8.11 (4) 8.113

Q.20 The correct answer of 2.2120×0.011 should be reported as

- (1) 0.024332 (2) 0.0243 (3) 0.02 (4) 0.024

TYPE 5 : Accuracy & Precision

Q.21 Which of the following are correct statements?

[NCERT Pg. 13]

- (a) Precision refers to closeness of various measurements for the same quantity.
(b) Accuracy is the agreement of particular value to the true value of the result.
(c) Accuracy is closeness of various measurements for the same quantity.

- (1) (a) & (b) only (3) (a) & (c) only
(2) (b) & (c) only (4) (a), (b) & (c)