

Hemchandracharya North Gujarat University, Patan
Bachelor of Vocation
Pharmaceutical Chemistry Semester I
End Term Examination, February 2016
Pharmaceutical Calculations (PC-111)

Time: 2 hrs

01/02/2016

Maximum Marks: 50

Q-1 Answer any 9 Questions.

[1 mark each]

(09)

1. Unit of ppm is _____
(a) kg/lit (b) cm/inch (c) gm/mole (d) none of these.
2. 862000 can also be written as _____ $\times 10^{-3}$.
3. Define: - Density.
4. Match the following
Normal solution depends on _____
Molecular weight
Equivalent weight
Nitrogen atom
Normal flora
5. Volume can be measured by specific gravity. (True/False).
6. Normality is symbolized by _____
(a) M (b) d (c) m (d) N
7. 1 inch = _____ cms.
8. Define :- Alcohol solution.
9. Match the following
 H_2SO_4
Dihydrogen sulphide
Dihydrogen sulphate
Dihydrogen sulphate
Dihydrogen sulphade
10. % solution does need molecular weight for preparation. (True/False).

Q-2 Answer any 5 Questions.

[4 mark each]

(20)

1. What is buffer solution discussing it through isotonicity.
2. State the importance of logarithms & find out the answer of $4.898 \div 2.1672$ through logarithm.

- 0.5 M K_2CrO_4 in 350 ml is there, if it will poured in 1 ltr bottle with some water to reach to one litre exactly then what will be the molarity of the newly formed solution, also find out it's normality.
- What is SI unit? 1-kilometer, 1-hectometre, 1-dekameter & 1-nanometer is equal to how many meters?
- Define percentage dilution Calculate how to prepare 1.75 % $K_2Cr_2O_7$ in 650 ml methanol? And convert it into molar concentration also.
- Define molecular weight & calculate the molecular weight of ammonium nitrate.

Q-3 Answer any 3 Questions.

[7 mark each]

(21)

- What are parts per billion and parts per million concentrations? If 25mg of Sodium acetate solute dissolves in 10 ml solvent then how many ppm it will become and convert it into ppb also.
- What are IV solutions? Discuss it through appropriate example.
- State the difference between density and specific gravity. A pycnometer weighs 54.19 g, filled with water it weighs 75.26 g when filled with another liquid it weighs 62.35 g. Calculate specific gravity of the liquid. If 0.5 g liquid cost 5125 Rs. then what will be the cost of liquid?
- Give the importance of graphical presentation. A pharmaceutical company has a production of sulphonamide drug in following manner, present given value through histogram.

Year	2009	2010	2011	2012	2013	2014	2015
Production (in tons)	2.4	1.3	2.1	1.5	3.8	1.7	3.3

Atomic Weights:

H-1, N-14, O-16, Na-23, S-32, Cl-35.5, K-39, Cr-52.

-----BEST OF LUCK-----