

**Pramukh Swami Science & H D Patel Arts College, Kadi**  
**Bachelor of Vocation**

**Pharmaceutical Chemistry Semester I**  
**Internal Examination, October 2017**  
**Pharmaceutical Calculations (PC-111)**

**Time: 2 hrs**

**28/10/2017**

**Marks: 60**

**Q-1 Answer any 12 Questions. [1 mark each] (12)**

- Density is symbolized by \_\_\_\_\_  
(a) d (b)  $\rho$  (c) N (d) M
- If we will remove two decimal from fifty thousand liters, then it becomes \_\_\_\_\_
- Define: - Molarity.
- Match the following

HNO<sub>3</sub>

Nitrus Acid

Nitric Acid

Nitrate Acid

Nitrogen Acid

- Unit of Normality is \_\_\_\_\_  
(a) Cm<sup>3</sup>/inch (b) gm/mole (c) Kg/lit (d) all of these.
- 1 cm = \_\_\_\_\_ mm.
- A solvent does not have molecular weight (True/False).
- Match the following  
ppb parts per million  
parts per billion parts per mole
- 0.1 N HCl solution is equal to \_\_\_\_\_ M HCl solution.
- Define :- Alcohol solution.
- Graphical presentation of data is important. True/False (Reason).
- Alcohol can be denoted by.....  
(a) -COOH (b) -CHO (c) -OH (d) -CONH<sub>2</sub>.
- If we will remove two decimal from seventy five thousand liters, then it becomes \_\_\_\_\_.

**Q-2 Answer any 5 Questions. [4 mark each] (20)**

- Present this value through bar graph :- Heptane 5 ml, Ethanol 72 ml, Acetone 12 ml and Chloroform 1 l ml.
- 0.15 N KMnO<sub>4</sub> in 750 ml is there, if we will dissolve it in more 250 ml then what will be the molarity of the newly formed solution.
- A glass plummet weighs 7.32 g in air, 6.12 g when immersed in water, and 6.08 g when immersed in organic solvent. Calculate specific gravity of the organic solvent.
- Define percentage dilution. How to make 7.02 % sucrose solution 500 ml water.
- 5 ppm MnSO<sub>4</sub> solution in water is present; how many % and how many molar the same solution is?
- How to make 2 N H<sub>2</sub>SO<sub>4</sub>? And convert it into molar, ppm and ppb also.

**Q-3 Answer any 4 Questions. [7 mark each] (28)**

- Discuss atomic and molecular weight & find out the molecular weight of Fe(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>.
- What is ppm concentration? If 15mg of KCl dissolve in 25 ml water then how many ppm it will become and convert it into ppb also.
- What is the cost of 1 pint of CCl<sub>4</sub>, specific gravity 1.12, bought at \$24.78 per pound? (1 pint = 473 ml, 1 pound (lb) = 454 gm)
- What is specific gravity? Discuss it through proper example.
- What is graphical presentation give its detail by the types of different graphs.

**Atomic Weights:**

H-1, C-12, O-16, Na-23, S-32, Cl-35.5, K-39, Cr-52, Mn-55.

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