



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**SECOND YEAR FIRST SEMESTER EXAMINATION FOR DEGREE
OF BACHELOR OF SCIENCE IN BIOMEDICAL SCIENCE WITH
INFORMATION TECHNOLOGY**

MAIN CAMPUS

PPS 211: PHARMACEUTICS I

Date: 8th December, 2016

Time: 8.30 - 11.30am

INSTRUCTIONS:

- Answer ALL Questions in Section A and any other TWO in Section B.



1. List four source of *Drug information* (books) used in the pharmaceutical practice
2. Outline (or illustrate) an appropriate drug *dispensing label* used in pharmaceutical practice.
3. Define the dosage forms below.
 - a) Emulsion
 - b) Pessaries
4. Give the *name* of the following:
 - a) *Aromatic dilute* and *saturated* solution of *volatile oils* , like camphor or chloroform, used in flavoring drug products.
 - b) *Alcoholic* preparations of *vegetable* materials, weaker than extracts.
5. Interpret the *prescription* below:
 Sig: Mitte, qs, ad, fl oz, Take i tsp, t.d.s and HS
6. Interpret the following notations:
 - a) *Tertiary* system 110
 - b) *Duodenary* system 110
 - c) *Duodenary* system Ten
 - d) *Tertiary* system Ten
7. Subtract
 - a) 1 from 10
 - b) 1,1 from 1000
8. Phenol/Hydroquinone (melting points 41 degrees C : 170degrees C respectively). State the *solubility characteristics* of the two compounds above giving reason for the difference noticed.
9. State the factors that influence *solubility*
10. State the effect of *Temperature* on *solubility* of a *Two component system* (phenol: water)

Section B

Instructions: Attempt 2 (two) questions only from this section (15 Marks each)

1. Describe the *solubility profile* of water and phenol using *phase transformations* such as seen through "consolute temperature"
2. Calculate the
 - (a) *Concentration* of sulfuric Acid at pH = 3.4
 - (b) *Molarity* at pH = 5.2

A weak acid of 0.1% ionization in a 0.2M solution

 - c) K_e and
 - d) pH
- 3 Discuss the *importance* of *Michaeli's-Menten* equation I n Drug *formulation* studies.