



**III SEMESTER B.PHARM END SEMESTER EXAMINATION**  
**EVALUATION GUIDELINES FOR PRACTICAL EXAMINATION**  
**PHARMACEUTICAL ORGANIC CHEMISTRY II**

Time: 4 hrs

Max Marks: 35

- Note:** 1. Procedure for experiments should be given.  
2. Weighing can be done in electronic balance.

**I. SYNOPSIS**

(2.5 x 2 = 5 Marks)

Principle involving chemical reactions of any two experiments

**II. MAJOR EXPERIMENT**

Determination of acid value/ Saponification value/ Iodine value of fixed oils (15 Marks)

- A. Standardization of the titrant : 5 Marks  
B. Determination of specified analytical constant : 10 Marks

Actual normality should be given for calculating the specified analytical constant.

Evaluation is based on % error of result:

0 – 1 % error – 10 marks

1 – 2 % error - 9 marks

2 – 3 % error- 8 marks

3 – 5 % error- 6 marks

5 – 10 % error- 4 marks

Above 10% error: 3 marks to be given if the candidate has performed the experiment correctly.

**III. MINOR EXPERIMENT**

(10 Marks)

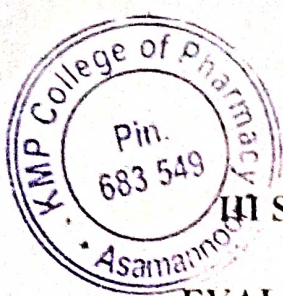
Synthesize and submit any one organic compound mentioned in the syllabus

Evaluation & Mark distribution:

- Colour : 1 Mark  
Odour : 1 Mark  
Dryness : 1 Mark  
Texture : 2 Marks  
Yield : 5 Marks

**IV. VIVA VOCE**

(5 Marks)



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## III SEMESTER B.PHARM END SEMESTER EXAMINATION

### EVALUATION GUIDELINES FOR PRACTICAL EXAMINATION

#### PHYSICAL PHARMACEUTICS I

Time: 4 hrs

Max Marks: 35

#### I. SYNOPSIS

(2.5 x 2 = 5 Marks)

Principle and procedure of any two experiments mentioned in the syllabus

#### II. MAJOR EXPERIMENT (Any one among the following)

(15 Marks)

- Study of particle size using Microscopic method
- Determination of partition coefficient of benzoic acid between benzene and water
- Determination of bulk density, true density and porosity

#### III. MINOR EXPERIMENT (Any one among the following)

(10 Marks)

- Angle of repose
- Determination of pKa value of a weak acid by half neutralisation method
- Determination of solubility of a drug at room temperature

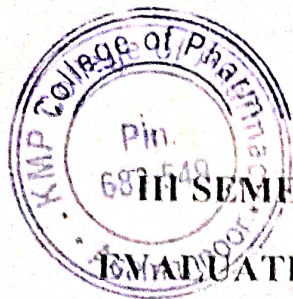
#### Split of marks for Major and Minor Experiments:

Sl.No		Major (15)	Minor (10)
1.	Procedure with tabular column	4	3
2.	Calculation including graph	4	3
3.	Performance of the experiment	4	2
4.	Report	3	2
Total		15	10

#### IV. VIVA VOCE

(5 Marks)





**III SEMESTER B.PHARM END SEMESTER EXAMINATION**  
**MATURATION GUIDELINES FOR PRACTICAL EXAMINATION**

**PHARMACEUTICAL MICROBIOLOGY**

Time: 4 hrs

Max Marks: 35

**I. SYNOPSIS**

(2.5 x 2 = 5 Marks)

The principle and /or procedure of any two experiments mentioned in syllabus.

**II. MAJOR EXPERIMENT**

(15 Marks)

Performing Gram's staining of the given pure culture (plate /slant/ broth) of established Gram positive or negative bacteria and the observations and report thereof in oil immersion objective of a compound microscope.

**III. MINOR EXPERIMENT - I**

(5 Marks)

Performing motility of bacteria in a given broth culture by Hanging drop method and the observations and report thereof in high- power objective of a compound microscope.

**IV. MINOR EXPERIMENT- II**

(5 Marks)

Performing Aseptic transfer techniques in an aseptic room/hood in any one of the following:

- Transfer of loop –full of broth culture to a fresh broth.
- Transfer of a colony from a streak/ spread/pour plate or agar slant into fresh broth.
- Transfer of a loop–full of broth culture to a streak plate or agar slant for isolation of pure culture.
- Transfer of a sample of IV fluid to Fluid Thioglycollate medium by direct inoculation method.

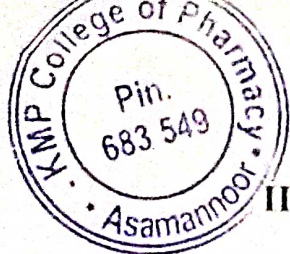
**SPLIT UP OF MARKS:**

SI. No	Details	Major (15)	Minor-I (5)	Minor-II (5)
1.	Optical Adjustment of microscope (focusing/illumination/nature of the focused field)	5	2	
2.	Observations including diagram of field	5	1	
3.	Report	2 ½	1	½
4.	Overall adherence to Aseptic techniques and microbiological protocols while performing the experiments	2 ½	1	4 ½
	<b>Total</b>	<b>15</b>	<b>5</b>	<b>5</b>

**V. VIVA VOCE**

(5 Marks)





### III SEMESTER B.PHARM END SEMESTER EXAMINATION

### EVALUATION GUIDELINES FOR PRACTICAL EXAMINATION

### PHARMACEUTICAL ENGINEERING

Time: 4 hrs

Max Marks: 35

#### I. SYNOPSIS

(2.5 x 2 = 5 Marks)

Principle and procedure of any 2 experiments mentioned in the syllabus

#### II. MAJOR EXPERIMENT (Any one from the following)

(15 Marks)

- Determine the effect of surface area/concentration/viscosity on the rate of Evaporation.
- Construct the drying curve for the given sample powder (determine the moisture content and loss on drying)
- Perform the particle size analysis of the given sample powder by sieving.
- Perform the particle size analysis of the given sample powder by beaker decantation.
- Determine the mixing index of the given sample powder at different time intervals.

#### III. MINOR EXPERIMENT (Any one from the following)

(10 Marks)

- Determination of atmospheric humidity by Psychrometric method.
- Determination of atmospheric humidity by dew point method.
- Determine the effect of surface area/concentration/viscosity on the rate of filtration.

#### SPLIT UP OF MARKS:

Sl No		Major (15)	Minor (10)
1	Procedure with tabular column	4	3
2	Calculation including graph	4	3
3	Performance of the experiment	4	2
4	Report	3	2
	<b>Total</b>	<b>15</b>	<b>10</b>

#### IV. VIVA VOCE

(5 Marks)