

School: School of Medicine and Allied Health Sciences	Level: Bachelor	
Program: Pharmacy	Year/Part: II/II	Superintendent's Sign:
Subject: Pharmaceutical Engineering II (BP401)		Code No.

GROUP A (Multiple-Choice Questions)	[10×1=10]	Maximum Time: 20 Minutes
<p>i. This group contains 10 multiple-choice questions (MCQs).</p> <p>ii. Answers must be marked on the MCQ Answer Sheet.</p> <p>iii. You may use the main answer sheet for rough work.</p> <p>iv. Marks will not be awarded for answers with cutting, erasing, overwriting, or multiple shaded options.</p> <p>v. The MCQ question paper must be returned along with the MCQ answer sheet.</p>		

Code No.:

- Gravity assist in which evaporator?
 - Falling film evaporator
 - Multiple effect evaporator
 - Horizontal film evaporator
 - Climbing film evaporator
- Calendria:
 - Consists number of Baffles
 - Consists number of tubular surfaces
 - Consists number of outlets
 - All of the above
- Freeze drying is also known as:
 - Lyophilization
 - Plug drying
 - Spray drying
 - Pneumatic drying.
- The bell crank lever arrangement is major part of which of the following?
 - Cyclone separator
 - edge runner mill
 - end runner mill
 - bag filter
- In pharmaceutical packing, collapsible tubes made from lead are not used as such, for one of the following reasons.
 - Costly metal
 - Difficulty in packing
 - Risk of poisoning
 - d. Soft in Strength
- Equilibrium distillation is also known as:
 - Flash distillation
 - Molecular distillation
 - Fractional distillation
 - Steam distillation
- Which dryer is used for drying of methyl cellulose?
 - Drum dryer
 - Tray dryer
 - Freeze dryer
 - Spray dryer
- Raoult's law is applicable for which one of the distillation process?
 - Simple Distillation
 - Flash Distillation
 - Molecular Distillation
 - Fractional Distillation
- In climbing film evaporator, the problem with evaporation is:
 - Boiling point of liquid
 - film formation
 - droplet formation
 - entrainment of liquid
- Attrition is major disadvantage in:
 - Spray drying
 - Fluidized bed dryer
 - Tray dryer
 - Drum dryer

MCQ Answer Sheet

Marks Secured: _____

In Words: _____

Examiner's Sign: _____ Date: _____

Scrutinizer's Marks: _____

In Words: _____

Scrutinizer's Sign: _____ Date: _____

Corrected Fill			
(A)	(B)	(C)	(D)
Incorrect Fill			
(X)	(B)	(C)	(D)

1. (A) (B) (C) (D)	6. (A) (B) (C) (D)
2. (A) (B) (C) (D)	7. (A) (B) (C) (D)
3. (A) (B) (C) (D)	8. (A) (B) (C) (D)
4. (A) (B) (C) (D)	9. (A) (B) (C) (D)
5. (A) (B) (C) (D)	10. (A) (B) (C) (D)

Manmohan Technical University
Office of the Controller of Examinations
Exam Year: 2082, Jestha **(Model Question)**

School: School of Medicine and Allied Health Sciences	Level: Bachelor	Time: 3 Hours
Program: Pharmacy	Year/Part: II/II	Full Marks: 50
Subject: Pharmaceutical Engineering II (BP401)		Pass Marks: 25

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ The figures in the margin indicate Full Marks.
- ✓ Assume suitable data if necessary.

GROUP A (Multiple-Choice Questions are provided on separate sheet)

[10×1=10]

GROUP B (Problem Based Question)

[1×10=10]

1. During extraction, concentration, or processing of enzymes and vitamins at higher temperatures, the active constituents may undergo decomposition (inactivation). How can the distillation of such products be carried out?
 - a. Mention a suitable method for distillation with its principle in detail. [5]
 - b. Explain the assembly of apparatus and procedure for that process with a figure. [5]

GROUP C (Long Answer Questions - Attempt Any Four)

[4×5=20]

2. Explain the working of fractional distillation in detail. Write in short about different types of fractionating columns.
3. Describe the construction and working of any one type of film evaporator.
4. What are different materials of construction in pharmaceutical field? Describe plastics and their uses in Pharmacy.
5. Describe the principle, construction and working of a fluidized bed dryer.
6. What are different filtration equipment? Explain about metafilter in detail.

GROUP D (Short Answer Questions - Attempt Any Five)

[5×2=10]

7. Explain the principle of freeze drying. What is its application in pharmacy?
8. Explain the principle of molecular distillation.
9. What are the factors affecting the evaporation process?
10. Write short notes on: Inorganic glasses and their types.
11. Discuss the construction of perforated basket centrifuge.
12. What factors do you consider to select drying equipment?

∞∞ **The End** ∞∞