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Total No. of Pages : 02

Total No. of Questions : 10

B.Pharm (2012 to 2016) (Sem.-4)

**PHARMACEUTICS IV****(Unit Operation-II)**

Subject Code : BPHM-401

M.Code : 46231

Time : 3 Hrs.

Max. Marks : 80

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt any THREE questions.

**SECTION-A****1. Define :**

- a. Define Unit Process.
- b. Define the term attrition.
- c. Define Overall Heat Transfer Coefficient.
- d. Explain Stefan Boltzmann's Law
- e. Describe Raoult's law.
- f. Mention the equipment used for solid-solid mixing.
- g. Define Different types of rectifying columns.
- h. Define LOD.
- i. Define Drying and its importance in dosage forms.
- j. Mention the factors affecting constant drying rate.





- k. Define flash distillation
- l. Define Impact and attrition in size reduction.
- m. Differentiate ideal and actual screens.
- n. Define Mechanism of mixing in liquid.
- o. Define Principle of sigma blade mixer.

#### SECTION-B

- 2. Explain the principle of freeze drying.
- 3. What is meant by steam distillation? What are its special advantages?
- 4. Explain the principle and working of fluidized bed dryer.
- 5. Describe the mechanism of size reduction with suitable examples of equipments.
- 6. Explain the working of a mixture used for mixing dry powder before granulation.

#### SECTION-C

- 7. Describe the construction, working and advantages of multipass heater.
- 8. Explain principle, working and applications of film evaporator.
- 9. Discuss the construction, working and advantages of drum dryer.
- 10. Describe the construction, working advantages and disadvantages of fluid energy mill.

**NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.**

