



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID 150319

Roll No.

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B.Pharma.

**(SEM. III) ODD SEMESTER THEORY
EXAMINATION, 2014-15**

PHARMACEUTICS-II (UNIT OPERATIONS)

Time : 3 Hours]

[Total Marks : 70

Note: Attempt all sections.

(Section-A)

1. Attempt any four parts: 3.5×4=14
- (a) Explain 'mass balance' and energy balance'. Give its applications.
- (b) Define:
- i) Raw water
 - ii) Soft water
 - iii) Purified water

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(1)

[Contd...

- (c) Discuss Kozeny-Carman theory of filtration and give its limitations.
- (d) What is RCF? Discuss its importance in the centrifugation process.
- (e) Define Drying. What role does drying play in the dosage form manufacturing?

(Section-B)

2. Attempt any six parts: 4×6=24

- (a) What is the quality requirement of water in pharmaceutical industry?
- (b) Discuss the various elements of automatic process control systems.
- (c) Give the principle, advantages and disadvantages of perforated basket centrifuge.
- (d) Describe the drying rate curve and explain its applications.
- (e) What is a psychrometric chart? How it is utilized to generate data on a definite air-water mixture?
- (f) What is a Fire Triangle? Write a note on prevention of fire hazards.

(Section-C)

Attempt any four questions:

8×4=32

- 3. Classify Filters. With the help of a neat and well-labeled diagram explain the principle and working of Plate and Frame filter press.
- 4. How Dryers can be classified? Explain the construction and operation of a freeze dryer. Give its applications in pharmacy.
- 5. What are the factors to be considered in the choice of a refrigerant? Describe a compression refrigeration system.
- 6. Discuss the factors influencing the selection of materials for pharmaceutical plant construction.
- 7. Give the general composition, types, resistance properties and pharmaceutical applications with reference to steel.

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