

Code No: PHR16221

R16**SET - 1****II B. Pharmacy II Semester Supplementary Examinations, April/May - 2019****PHARMACEUTICAL UNIT OPERATIONS-II**

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is Compulsory
3. Answer any **FOUR** Questions from **Part-B**

~~~~~

**PART -A**

1. a) What is black body? Give its properties. (2M)
- b) Explain construction of calandria. Give its uses. (2M)
- c) What are constant boiling point mixtures? How are they separated? (2M)
- d) Write the principle involved in freeze drying. (2M)
- e) Fluid energy mill is meant for wet milling. True or false. Explain. (2M)
- f) What is mixing indices? (2M)
- g) What do you mean by vortex? How it is prevented? (2M)

**PART -B**

2. a) With a neat labeled diagram, explain the construction and working of shell and tube heat exchanger. (8M)
- b) Explain variation in temperature in counter current flow. (6M)
3. a) Write a brief note on factors influencing evaporation. (8M)
- b) Describe the construction and working of steam jacketed kettle. (6M)
4. a) Explain principle and applications of steam distillation. (7M)
- b) Describe the design and working of flash distillation apparatus. (7M)
5. a) Explain parts of drying rate curve. (7M)
- b) Describe the construction and working of tray dryer. (7M)
6. a) Describe the construction, working and applications of Ball mill. (8M)
- b) State and explain Bond's theory and Kick's theory. (6M)
7. a) Describe the construction and working of Colloidal mill. (7M)
- b) Write the design and working of sliverson mixer. (7M)