

Code No: B2201/R10

**Set No.1**

**II B.Pharmacy II Semester Supple. Examinations, April/May 2017**  
**PHARMACEUTICAL UNIT OPERATIONS-II**

**Time: 3 hours**

**Max Marks: 75**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. (a) Give the characteristic of drop wise and film types of condensation  
(b) Derive an equation for qualifying the heat flowing through a metallic cylinder by means of conduction. [8+7]
2. Describe and construct vacuum stills for distillation under reduced pressure [15]
3. (a) Classify vapor heated evaporators with tubular heating surface  
(b) Describe the working of horizontal tube evaporators [8+7]
4. Explain construction, operation in detail of various industrial Tray dryers along with applications [15]
5. (a) Describe in detail about need and necessity in the usage of Vacuum Oven, along with its construction and applications  
(b) Explain the factors to be considered in the selection of Dryers. Add a note on Tray Dryer [8+7]
6. (a) Explain elaborately about various factors related to influencing size reduction of materials  
(b) Describe the principle and working of Hammer mill with its applications [8+7]
7. (a) Compare and contrast the Propeller mixer with the turbine mixer.  
(b) Explain in detail about various types of baffles employed in mixing with neat labeled diagrams. [8+7]
8. Give an account on the following:  
(a) Feedback control systems  
(b) Feed forward control systems  
(c) Electronic Vs Pneumatic controllers  
(d) Open loop and closed loop control systems [4+4+4+3]

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