15451

B. Pharmacy 3rd Semester Examination

Unit Operation-II (NS)

BP-232

Time : 3 Hours   **Max. Marks : 70**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt any two questions from Section A and eight questions from Section B. All questions in Section C are compulsory.

SECTION - A
Attempt any two questions

1. Discuss the factors affecting degree of size reduction. Explain advantages and disadvantages of size reduction.   (10)

2. Discuss the factors affecting evaporation. Explain advantages and disadvantages of evaporation.   (10)

3. With the help of neat diagram, explain film and overall heat transfer coefficient in forced convection with relevant mathematical equation.   (10)

SECTION - B
Answer any eight questions

4. Define mixing and write a note on sigma blade mixer.   (5)

5. Explain the principal, advantage and disadvantage of short tube evaporator with neat diagram.   (5)

6. Discuss principle, advantages and disadvantages of mill working on principal of impact & attrition.   (5)

[P.T.O.]

7. What is stoichiometry? Explain material balance and application of ideal gas law.   (5)

8. What is heat transfer? Explain different mode of heat transfer in detail.   (5)

9. Discuss about boiler capacity and sources of heat.   (5)

10. Write a short note on scope and application of drying in field of pharmacy.   (5)

11. Enlist liquid mixers. Write a short note on any one of them.   (5)

12. Give the objectives of automated process control. Explain the different temperature measurement methods.   (5)

13. Explain the factors affecting reactor design.   (5)

SECTION - C
All questions are compulsory

14. Give the classification of distillation processes with example.   (2)

15. Define: mole fraction and ideal gas law   (2)

16. Comment on: All the amorphous solid materials are more difficult to dry than granular or crystalline solids.   (2)

17. Define stoichiometry and give its significance.   (2)

18. How the efficiency of ball mill increased?   (2)