

16377(D) - 0 DEC 2016

**B. Pharmacy 3rd Semester Examination**

**Unit Operations-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**

1. Discuss the objectives of size reduction and explain the factors affecting size reduction.
2. Explain basic concepts of phase equilibria and explain its advantages.
3. Describe the different elements of computer aided manufacturing. (2×10=20)

**SECTION - B**

4. What do you understand by phase diagrams and explain its applications.
5. Explain the principle, construction, working and uses of fluid energy mill.
6. Discuss in brief about mechanisms of heat flow.
7. Explain the principle, construction and working of large scale equipment for simple distillation.

8. Describe statistical evaluation procedure for the blending of powders.
9. Write a short note on gas laws.
10. Discuss different elements of automatic process control systems.
11. Write a note on equilibrium state.
12. Discuss in brief about extractive distillation.
13. Write a note on V cone blender. (8×5=40)

**SECTION - A**

14. Define the terms size reduction and size separation.
15. What do you understand by automated process control systems?
16. Describe mixing index.
17. Explain Dalton's law.
18. Discuss economy of multiple effect evaporator. (2×5=10)