[Time: 3 Hours] [Max. Marks: 75]

## Pharmaceutical Production Technology-II Q.P. CODE: 5143

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessary.

## LONG ESSAY (Answer any Three)

3 X 10 = 30 Marks

- Explain different drying equipments. Write a note on batch mixing.
- Draw a layout of parenteral manufacturing unit. Explain the flow of personnel, materials and equipments into aseptic area.
- 3. Explain in detail on air handling units.
- 4. Discuss manufacturing of hard gelatin capsules. Give the layout for hard gelatin capsules.

## SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

- Describe the basic principles behind freeze drying.
- 6. Write the role of roller mill in disperse system production.
- 7. Compare sugar coating and film coating processes.
- 8. Discuss utilities and equipment location for parenteral production area.
- 9. Write a note on equipments for solid dispersion.
- 10. Explain glass as a packaging material.
- 11. Describe unit operation improvements for tablet manufacture.
- in parenteral p 12. Give advantages and disadvantages of lyophilization.
- 13. Write a note on ultra filteration.
- 14. Explain environmental control in parenteral production.

