



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

**LONG ESSAY (Answer any TWO)**

**2 X 20 = 40 Marks**

1. Discuss pilot plant scale up techniques for capsules.
2. Explain production planning and control procedures of Pharmaceutical unit.
3. Discuss human resource development aspects of Pharmaceutical unit.

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. Explain methods to improve solubility of drugs.
5. Explain salient features of stores management, disposal of scrap and surplus.
6. Explain various Effluent testing methods.
7. Explain salient features of GMP.
8. Distinguish ISO 9000 and 14000 validation.
9. Explain GATT, TRIPS and TRIMS legal aspects.

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. Pharmaceutical Regulatory Affairs.
11. Industrial hazards and safety.

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