



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

LONG ESSAY (Answer any TWO)**2 X 20 = 40 Marks**

1. State the importance of Pilot Plant and its Design. Also state its impact on Streamlining the production.
2. Explain the ICH Guidelines, WHO and GMP standards applied for Pharmaceuticals.
3. Explain the various Optimization Techniques applied in Pharmaceutical Formulations.

SHORT ESSAY (Answer any FIVE)**5 X 10 = 50 Marks**

4. Explain the objectives and principles of material handling in a pharmaceutical unit
5. State the procedure to manufacture any Biological Product as per D & C Act.
6. Indicate the importance of Preventive maintenance for continuous production.
7. Explain the monitoring procedure for Fire Hazards in a plant.
8. State the Effluent Treatment Procedure followed in a Pharmaceutical manufacturing unit.
9. Explain the procedure followed for selection of personnel in formulation unit.

SHORT NOTES**2 X 5 = 10 Marks**

10. Human resource management.
11. Salient features of ISO 9000.
