

**Time: Three Hours**

**Max. Marks: 75 Marks**

**Advances Pharmaceutical Technology**

**Q.P. CODE: 5127**

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**

1. Explain the techniques to study of crystal properties and thermal analysis in preformulation studies.
2. Classify and discuss on biodegradable and natural polymers in drug formulations
3. Write the layout and facility of cGMP process of LVP.
4. Explain the compression process and force measurement in tablet manufacturing.

**SHORT ESSAY (Answer any Nine)**

**9 X 5 = 45 Marks**

5. Describe in detail sterility testing of parenterals.
6. Write the effect of surfactant, pH and cosolvents in drug solubilisation process.
7. Explain briefly solid dispersions.
8. Write a note on drug complexation technique in preformulation studies.
9. Discuss about directly compressible vehicles in tablet formulations.
10. Write short notes on hydrogels.
11. Describe evaluation tests for small volume parenterals.
12. Write the machinery involved in the filling of soft gelatin capsules.
13. Write a note on importance of microscopic studies in preformulation.
14. Explain the aqueous solubility, organic solubility and intrinsic solubility.

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