



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 the importance of undertaking preformulation studies in manufacturing unit
2. Write a detailed note on material and maintenance management
3. Explain pilot plant scale up technique for capsules

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. Write a note on prospective validation
5. Write a note on inventory evaluation
6. How will you control effluents in pharmaceutical units
7. Write briefly on storage conditions followed as per GMP
8. State briefly on job enlargement and enrichment
9. Write a note on intellectual property rights

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. Co – solvency
11. EOQ

\* \* \* \* \*