



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. What are solid state studies with reference to pre-formulation?
2. Explain with lay-out, facilities and steps in sterile manufacturing
3. Explain extraction, isolation of gelatin, manufacturing and evaluation of hard gelatin capsules

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

4. What are the causes of fire in pharma industry? How will you prevent fire?
5. How will you perform pilot study of oral liquids
6. How Chewable tablets are prepared and evaluated?
7. Explain the importance of cosolvency
8. Explain classical optimization
9. What are the impacts of GATT and WTO on Indian pharma industry?

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

10. Suntan preparations
11. Packing and storage condition of lipsticks
