



**Rajiv Gandhi University of Health Sciences**  
**First Year M.Pharm Degree Examination - May 2011**

[Time: 3 Hours]

[Max. Marks: 100]

**PREFORMULATION AND PRODUCTION MANAGEMENT**

**(RS 2 & RS 3)**

**Q.P. CODE: 9282**

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. Explain the concepts of pre-formulation with special emphasis on study of stability, interactions with excipient and physico-chemical characteristics of drug molecules.
2. Discuss about ISO 9000 series. Explain the documentation practices that are ideally implemented in a production unit.
3. Write in detail pilot plant scale up concepts and techniques for parenterals

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. Effluent treatment in pharmaceutical industries
5. Personnel training.
6. Formulation aspects of medicated lozenges
7. Centralized purchasing
8. Salient features of GMP
9. Classical optimization

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. GATT and trips
11. Inventory models.

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