

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm-Semester-VII May-2012 Examination

Subject code: 270002

Subject Name: Pharmaceutical Technology - I

Time: 02:30pm to 5:30pm

Date: 24-05-2012

### Instructions:

Total Marks: 80

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Classify additives used in liquid dosage forms. Describe solubilizing agents. **06**  
(b) Comment: Sedimentation rate of flocculated suspensions is faster than deflocculated suspensions. Explain formulation of flocculated suspension. **05**  
(c) Enlist mechanical equipments used for emulsification. Describe Homogenizer. **05**
- Q.2** (a) Classify routes of drug penetration through skin. Describe various factors affecting on drug penetration through skin. **06**  
(b) Comment: Creams are easily washable. Differentiate cold cream and vanishing cream. **05**  
(c) Describe ideal properties of suppository base. Explain significance of theobroma oil base. **05**
- Q.3** (a) Describe pharmaceutical application of aerosol. **06**  
(b) Comment: Propellants are highly volatile. Describe type of propellants used in Aerosol preparation. **05**  
(c) Enumerate quality control tests of Aerosol. Describe flash point and particle size determination. **05**
- Q.4** (a) Differentiate SVP and LVP. Describe types of IV sets. **06**  
(b) Comment: Pyrogens are killed by dry heat sterilization. Explain LAL test. **05**  
(c) Describe various routes for administration of parenteral preparation with suitable examples. **05**
- Q.5** (a) Explain how and why the prefilled syringe is better than convention disposable syringe or vial packaging system. **06**  
(b) Comment: Vertical laminar air flow is better than horizontal laminar air flow for parenteral manufacturing. Explain AHU. **05**  
(c) Enlist vehicles used for parenteral dosage form. Explain water for injection. **05**
- Q.6** (a) Explain in brief about Total Parenteral Nutrition. **06**  
(b) Comment: Ophthalmic product should be used within one month after opening the cap. Describe various types of ophthalmic products. **05**  
(c) Describe types of Actuators for aerosols. **05**
- Q.7** (a) Write a note on FFS Technology. **06**  
(b) Comment: Hydrophilic polymers are used in gel preparation. Describe pharmaceutical application of gels. **05**  
(c) Define microemulsion. Describe theory of emulsionsification. **05**

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