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 siginicance 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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