

**GUJARAT TECHNOLOGICAL UNIVERSITY****B.PHARM. - SEMESTER- VII • EXAMINATION – SUMMER-2016****Subject Code: 270002****Date: 05/05/2016****Subject Name: Pharmaceutical Technology - I****Time: 2:30 PM to 5:30 PM****Total Marks: 80****Instructions:**

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

<b>Q.1</b>	(a)	What are clean rooms? Describe the standards and criteria for environmental monitoring of clean rooms.	<b>06</b>
	(b)	Explain in detail the non-aqueous solvents used in the parenteral formulation.	<b>05</b>
	(c)	Write a note on containers and closures used for parenterals.	<b>05</b>
<b>Q.2</b>	(a)	Classify the methods of filling aerosols. Describe any one process with a suitable diagram.	<b>06</b>
	(b)	Enlist the properties of ideal propellant used in aerosol. Describe in brief propellants used for topical aerosols.	<b>05</b>
	(c)	Explain the following evaluation tests for aerosols: <ol style="list-style-type: none"> <li>1. Flammability and combustibility.</li> <li>2. Spray pattern and spray testing.</li> </ol>	<b>05</b>
<b>Q.3</b>	(a)	Describe in brief the importance of following components used in ophthalmic solutions: <ol style="list-style-type: none"> <li>1. Tonicity modifiers.</li> <li>2. Buffers.</li> <li>3. Viscosity enhancers.</li> </ol>	<b>06</b>
	(b)	Discuss evaluation tests of ophthalmic preparations.	<b>05</b>
	(c)	Write a brief note on ophthalmic ointments.	<b>05</b>
<b>Q.4</b>	(a)	Classify suppository bases and discuss the criteria for their selection.	<b>06</b>
	(b)	Discuss in brief the additives used in liquid dosage forms.	<b>05</b>
	(c)	Describe the components of an aerosol valve with their functions.	<b>05</b>
<b>Q.5</b>	(a)	Discuss in brief the evaluation test for suspensions.	<b>06</b>
	(b)	Give important parameters, advantages, disadvantages and applications of microemulsions.	<b>05</b>
	(c)	Explain in brief the techniques used for the manufacturing of emulsions.	<b>05</b>
<b>Q.6</b>	(a)	Write a detail note on: Parenteral Suspensions.	<b>06</b>
	(b)	Discuss in brief blow fill seal technology for parenterals.	<b>05</b>
	(c)	Enlist the quality control tests for parenterals. Explain in detail LAL test for pyrogen testing.	<b>05</b>
<b>Q.7</b>	(a)	Classify and write the ideal requirements of semisolid bases. Explain in brief oleaginous ointment bases.	<b>06</b>
	(b)	Explain the evaluation criteria for semisolids in brief.	<b>05</b>
	(c)	Discuss the mechanisms of drug penetration through skin.	<b>05</b>