

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VIII(NEW) EXAMINATION – SUMMER 2019****Subject Code: 2183902****Date:17/05/2019****Subject Name: Nanotechnology for Advanced Drug Delivery Systems****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

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

		MARKS
<b>Q.1</b>	(a) Define Tissue Engineering.	<b>03</b>
	(b) Explain Material Selection for Carrier Designing.	<b>04</b>
	(c) Describe Mechanism of Drug Loading with All Subtypes.	<b>07</b>
<b>Q.2</b>	(a) Write full form of MDI and explain it briefly.	<b>03</b>
	(b) Write a Short Note on Ophthalmic Drug Delivery.	<b>04</b>
	(c) How Nano Carriers can Be used for Active Targeting? Explain.	<b>07</b>
<b>OR</b>		
	(c) What are the Limitations, Safety Issues and Perspective for Designing Carrier? Describe it Briefly.	<b>07</b>
<b>Q.3</b>	(a) Describe Sensing (Nano Medicine).	<b>03</b>
	(b) Describe Dermal and Urogenital Drug Delivery.	<b>04</b>
	(c) Describe Small Molecule Drug. Also Explain the Delivery of Therapeutic Enzymes.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Define : Medical Devices (Nano Medicine)	<b>03</b>
	(b) Explain: Rectal Drug Delivery.	<b>04</b>
	(c) Describe Immunoliposome for Targeting Myocardium.	<b>07</b>
<b>Q.4</b>	(a) Define Lymphatic System with all the components.	<b>03</b>
	(b) Explain Topical Dosage Form.	<b>04</b>
	(c) Explain Drug Release Mechanism.	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) Explain Different Types of Nano Carriers.	<b>03</b>
	(b) Write a Short Note on Clearance of Particles from Lung.	<b>04</b>
	(c) Describe the Delivery of Nanoparticles to the Cardiovascular System.	<b>07</b>
<b>Q.5</b>	(a) What is Visualization? (Nano Medicine)	<b>03</b>
	(b) Define Blood Purification (Nano Medicine)	<b>04</b>
	(c) Describe Gene Delivery, Biocompatibility and Imaging for Carrier Design.	<b>07</b>
<b>OR</b>		
<b>Q.5</b>	(a) Write Down any Five Dosage Form with Types.	<b>03</b>
	(b) Define Drug Delivery: Oral and Nasal.	<b>04</b>
	(c) Describe Aerosols as Drug Carrier.(Types)	<b>07</b>

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