GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI(NEW) – EXAMINATION – SUMMER 2019

Subject Code:2163903   **Date:16/05/2019**

Subject Name:Nanotechnology and Medicine

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
Q.1	**(a)**	Define: Magnetic NPS	**03**
	(b)	Give your vision about Gene transfer	**04**
	(c)	Write a short note on Landmarks in the Evolution of Nanomedicine.	**07**
Q.2	**(a)**	Define : Nano biotechnology	**03**
	(b)	Differentiate: in vivo and vitro	**04**
	(c)	Write a short note on Magnetic Hyperthermia in the vicinity of cancer treatment.	**07**

OR

	(c)	Explain: Oil-in-Water (O/W) based Nano capsules with its application in medical field.	**07**
Q.3	**(a)**	State toxicity associated with Cobalt based magnetic nanoparticles as drug carriers.	**03**
	(b)	Differentiate: Nano capsules and Nano sphere.	**04**
	(c)	Write a short note on Iron oxide based magnetic nanoparticles.	**07**

OR

Q.3	**(a)**	Define: Drug delivery	**03**
	(b)	State biocompatibility issues related to magnetic nanoparticles.	**04**
	(c)	Write a short note on oral rout of advanced drug delivery.	**07**
Q.4	**(a)**	Define: Encapsulation of drug in the vicinity of advanced drug delivery.	**03**
	(b)	Give advantage pf CAP-PEG-insulin-casein (CAPIC) oral insulin delivery system.	**04**
	(c)	Write a short note on Magnetic radioactive isotope based treatment of cancer.	**07**

OR

Q.4	**(a)**	Give advantage of nanoparticle based drug delivery.	**03**
	(b)	State benefit of dendrimers as drug carriers.	**04**
	(c)	Write short note on fullerene conjugate for intracellular delivery of peptides polymer.	**07**
Q.5	**(a)**	Define: Drug Carrier	**03**
	(b)	Explain : Characterization of Nano capsules	**04**
	(c)	Write a short on cyclodextrin Nanoparticles for drug Delivery.	**07**

OR

Q.5	**(a)**	State use of polymer nanoparticles as drug carrier.	**03**
	(b)	Write a short note Gold Nanoparticles as drug carrier.	**04**
	(c)	Write a short note on Super Paramagnetic Particles for Drug Delivery	**07**

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