Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII (OLD) - EXAMINATION - SUMMER 2017

Subject Code: 172107 Date: 29/04/2017

Subject Name: Surface Coating Technology (Department Elective - I)

Time: 02:30 PM to 05:00 PM Total Marks: 70

Instructions:

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

Q.1	(a) (b)	What are the basic aspects for the selection of surface preparation method? Explain Anodizing as a method of corrosion prevention. Give the role of barrier oxides in aluminum anodizing.	07 07
Q.2	(a) (b)	Explain the chemical cleaning in detail with its types. What is phosphating? Explain the phospating for iron and zinc. OR	07 07
	(b)	Explain chromating in detail.	07
Q.3	(a) (b)	What do you mean by diffusion coating? Explain the carburizing process. Write short note on aluminizing	07 07
		OR	
Q.3	(a) (b)	Explain ion implantation method. Explain plasma spray coating in detail.	07 07
Q.4	(a)	What is chemical vapor deposition? Explain in detail with mechanism, advantages, disadvantages and applications.	07
	(b)	Discuss principle of Electroplating & explain setup used for it with a neat sketch	07
0.4	(.)	OR	07
Q.4	(a) (b)	Explain galvanizing in detail. Explain electroless plating. What are the types of electroless plating?	07 07
Q.5	(a)	Write short note on sputtering	07
	(b)	Critically compare the Boronizing and Boronitriding processes.	07
		OR	
Q.5	(a)	Explain how hot dip process is carried out.	07
	(b)	Describe the process steps for conversion coating.	07
