Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – SUMMER • 2014

Subject Code: 172107 Date: 31-0		5-2014	
Subj	ect l	Name: Surface Coating Technology	
Time: 02.30 pm - 05.00 pm Total M		:ks: 70	
Instru			
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Explain the importance of surface engineering. Discus the basic aspects for the selection of a particular surface preparation method.	07
	(b)	What is anodizing? Explain aluminium anodizing process.	07
Q.2	(a)	Explain hot dip galvanizing process in brief. Mention process controlling factors.	07
	(b)	its advantages.	07
		OR	
	(b)	Compare the Shot blasting and Hydroblasting surface preparation processes.	07
Q.3	(a)	What do you mean by conversion coating? Describe the process steps for conversion coating.	07
	(b)	Define Carbonitriding. Describe the Carbonitriding process. OR	07
Q.3	(a) (b)	What is phosphating? Explain phosphating process for iron and zinc. Critically compare the Boronizing and Boronitriding processes.	07 07
Q.4	(a)	What is electroless plating? List types of electroless plating. Discuss any one in brief.	07
	(b)	What is carburizing? Briefly discuss solid carburizing process. OR	07
Q.4	(a)	Describe electroplating process for copper. Explain factors affecting electrodeposition.	07
	(b)	What is plasma? Explain plasma spray coating method. Give its advantages and applications.	07
Q.5	(a)	What is chemical vapor deposition? Explain in detail with mechanism, advantages and limitations.	07
	(b)		07
		OR	
Q.5	(a)	Multicomponent deposition is carried out in PVD.	07
	(b)	What is sputtering? Write its types. Explain any one method of sputtering.	07
