Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III • EXAMINATION - SUMMER • 2014

bject	Code: 130102 Date: 26-05-2014	
ne: 0	2.30 pm - 05.00 pm Total Marks: 70	
1. 2.	Attempt all questions. Make suitable assumptions wherever necessary.	
(a)	Differentiate between scale & sludge. How does the formation of sludge and scales affect boiler performance? Mention the methods to prevent scale formation.	07
(b)	Give the characteristics of potable water. Mention various processes for removal of impurities.	07
(a) (b)	Write short-note on heat treatment of steel and their effects on alloy. Differentiate between chemical corrosion and electro chemical corrosion. OR	07 07
(b)	Give classification of fuel with example. Explain the characteristic of good fuel.	07
(a) (b)	Differentiate between Thermoplastic and Thermosetting Plastic. What is vulcanization of rubber? Why natural rubber needs vulcanization? How is it carried out? Mention its advantages.	07 07
(a) (b)	Describe processes of Melt Spinning & Wet Spinning of fibers. Give classification of fibers.	07 07
(a) (b)	What are abrasives? Give classification of abrasives. Define the term lubricants. Mention their important function. Discuss the properties of lubricants.	07 07
	OR	0=
(a) (b)	Write the principle and function of Adsorption Chromatography. Give the composition of bio-gas with the help of a diagram. Explain a bio-gas plant.	07 07
(a) (b)	Explain in details Electroplating Method for protective coating. Define the term paint, varnish and enamel. Mention the essential constituents of paint and their function.	07 07
()	OR	0.5
(a)	•	07
(b)	Give classification of refractory material. Discuss properties of Good Refractories.	07
	(a) (b)	ne: 02.30 pm - 05.00 pm Total Marks: 70 ructions: 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. (a) Differentiate between scale & sludge. How does the formation of sludge and scales affect boiler performance? Mention the methods to prevent scale formation. (b) Give the characteristics of potable water. Mention various processes for removal of impurities. (a) Write short-note on heat treatment of steel and their effects on alloy. (b) Differentiate between chemical corrosion and electro chemical corrosion. OR (b) Give classification of fuel with example. Explain the characteristic of good fuel. (a) Differentiate between Thermoplastic and Thermosetting Plastic. (b) What is vulcanization of rubber? Why natural rubber needs vulcanization? How is it carried out? Mention its advantages. OR (a) Describe processes of Melt Spinning & Wet Spinning of fibers. (b) Give classification of fibers. (a) What are abrasives? Give classification of abrasives. (b) Define the term lubricants. Mention their important function. Discuss the properties of lubricants. OR (a) Write the principle and function of Adsorption Chromatography. (b) Give the composition of bio-gas with the help of a diagram. Explain a bio-gas plant. (a) Explain in details Electroplating Method for protective coating. Define the term paint, varnish and enamel. Mention the essential constituents of paint and their function. OR (a) Justify the statement "Solar energy is the ultimate sources of all types of energy" (b) Give classification of refractory material. Discuss properties of Good
