Seat No.:	Enrolment No.
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Subject code: 160502

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## B. E. - SEMESTER - VI • EXAMINATION - WINTER 2012

Date: 03/01/2013

•	e: 02.	Name: Chemical Process Industries - II 30 pm - 05.00 pm  Total Marks: '	70
	1. 2.	Attempt any five questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.	
Q.1	(a) (b)	What is a dye? Classify different types of dyes in details. Explain the manufacturing process of ethanol by fermentation process. List the major engineering problems.	07 07
Q.2	(a)	Classify different types of pharmaceutical products based on their	06
	<b>(b)</b>	applications and usage.  Describe the manufacturing process of H-Acid. Also list the various applications of H-Acid.	08
	<b>(b)</b>	OR Write short note on: i) Vat dyes and ii) Natural dyes.	08
Q.3	(a)	Answer in brief:  i) Application of insulin.  ii) Application of industrial coatings.	09
	<b>(b)</b>	iii) Essential characteristics of a good fermentation process.  Write a short note on barbital.  OR	05
Q.3	(a)	Answer in brief:  i) Required characteristics of surface coatings.  ii) Waste disposal problem in fermentation industry.  iii) Different uses of bagasse.	09
	<b>(b)</b>	Write a short note on varnishes.	05
Q.4	(a)	Explain the manufacturing process of Penicillin with the help of a detailed flowsheet.	07
Q.4	<b>(b)</b>	With a detailed flowsheet explain the manufacturing process of sugar from sugarcane.	07
0.4	(a)	OR What are Vitamine? Write the chamical formula of Vitamin D. D. and	07
Q.4	(a)	What are Vitamins? Write the chemical formula of Vitamin $B_1$ , $B_2$ and C along with their applications.	07
Q.4	<b>(b)</b>	What are pigments. Describe the manufacturing process of Titanium Dioxide and its application.	07
Q.5	(a) (b)	Discuss the various engineering problems in the manufacture of sugar.  Write a note on beer and beer production.  OR	07 07
Q.5	(a)	Discuss various types of wines and their manufacturing process in brief.	07
	<b>(b)</b>	Discuss citric acid production with a flowchart along with major applications.	07
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