GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV (NEW) - EXAMINATION - SUMMER 2017

Subject Code: 2140506 Date: 03/06/2017

Subject Name: Chemical Process Industries -II

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		Short Questions	14
	1	All enzymes are made of	
	2	Which yeast is used for alcohol production by fermentation?	
	3	Write the name of raw materials for wine production.	
	4	Write chemical reaction for citric acid preparation from sucrose.	
	5	Indicates the structure of glucose and fructose.	
	6	Indicates the role of constituents present in paints.(any four)	
	7	Which two methods are used to prepare Titanium dioxide?	
	8	Give any four name of pigments used in paints?	
	9	Define drugs.	
	10	Chemical name of aspirin is	
	11	Give the molecular formula of H-acid.	
	12	Give the application of direct dyes.	
	13	Define chromophore and auxochrome?	
	14	Give one example of Azo dyes.	
Q.2	(a)	What is fermentation? Indicates basic prerequisites of a good fermentation	03
		process.	
	(b)	Explain with chemical reaction how vinegar and acetic acid are produce?	04
	(c)	Explain the manufacturing process of citric acid by giving flow diagram with	07
		major engineering problems.	
		OR	
	(c)	Explain the manufacturing process of wine by giving neat sketch.	07
Q.3	(a)	What is paint and P.V.C of paint?	03
	(b)	Indicates the role of various constituents present in paint.	04
	(c)	By giving neat flow sheet diagram, Explain the manufacturing process of paint. OR	07
Q.3	(a)	Write a short note on Emulsion paints.	03
	(b)	Write a note on marine antifouling coating.	04
	(c)	Explain manufacturing process of raw cane sugar with neat sketch.	07
Q.4	(a)	How barbital is prepared? Explain it by giving chemical reaction only.	03
	(b)	What is Antibiotics? Give two name of antibiotics.	04
	(c)	Explain the manufacturing process of Aspirin by giving flow diagram.	07
		OR	
Q.4	(a)	Write a note on vitamin C.	03
	(b)	Write complete chemical reaction for Thiamine hydrochloride.	04
	(c)	Explain the manufacturing process of Insulin with flow sheet diagram.	07
Q.5	(a)	What is dye? Write the application of vat dye and disperse dye.	03
	(b)	What is the role of sulfuric acid in nitration?	04

	(c)	Explain the manufacturing process of Nitrobenzene from Benzene by giving	07
		flow sheet diagram.	
		OR	
Q.5	(a)	Write a note on H-acid.	03
	(b)	Explain sulfonation by giving example.	04
	(c)	How aniline is prepared from Nitrobenzene? Explain with neat sketch.	07
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