Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VI • EXAMINATION – SUMMER • 2015

Subject code: 160302 Da Subject Name: Analytical & Optical Instrumentation			5
	ie: 10	0.30AM-01.00PM Total marks: 70	0
IIISTI U	1. 2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Write a short note on Bright Field & Dark Field Microscopy. Explain the principle & working of Flame Photometry.	07 07
Q.2	(a) (b)	Explain the block diagram principle and uses of Gas Chromatography. Explain Pulse oximetry technique in detail. OR	07 07
	(b)	Write a short note on different types of Centrifuge.	07
Q.3	(a) (b)	Write a brief note on Flexible & Rigid Endoscopy. State & explain the working principle of Electrophoresis. OR	07 07
Q.3	(a) (b)	Explain principle and block diagram of Coulter Counter. State & explain Beer-Lambert's law. Explain UV Spectrophotometer.	07 07
Q.4	(a) (b)	Classify various types of Auto Analyzers & explain any one in detail. Explain ELISA reader. OR	07 07
Q.4	(a) (b)	Write a short note on hot air oven & incubators. Explain the working principle of Liquid Chromatography. What are the various types of Liquid Chromatography?	07 07
Q.5	(a) (b)	Explain Blood Gas Analyzer. Write a short note on various types of electrodes used in pH meters. OR	07 07
Q.5	(a) (b)	Write a short note on different types of atomizers. Explain the principle & working of Fluorescence Microscopy.	07 07
