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SEAT NO. : **BE / Insem. - 104**

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B. E. (Instrumentation & Control) (Semester - I)**ENVIRONMENTAL INSTRUMENTATION (Elective-II) (In Sem.)****(2012 Pattern)****Marking Scheme****UNIT I**

Q1)	a)	Explain the need of Instrumentation & control for environment. Each point-1 mark (minimum 5 points)	[5]
	b)	Explain the role of gas chromatography in environmental analysis. Each point -1 mark (Minimum 5 points)	[5]

OR

Q2)	a)	Explain working of total hydrocarbon analyzer using flame ionization detector? Diagram-2 marks Explnation-2 marks	[4]
	b)	Compare portable and stationary analytical Instruments. Each point -1 mark (Minimum 6 points)	[6]

UNIT-II

Q3)	a)	Explain pH analyser. Diagram-2 marks Explnation-2 marks	[4]
	b)	Discuss water quality standards for raw and treated water. Quality standards- 3 marks each	[6]

OR

Q4)	a)	Explain thermal conductivity detectors used in water treatments. Discuss their advantages. Diagram-2 marks Explnation-2 marks Advantages-2 marks	[6]
	b)	What are the requirements of water treatment facilities. Requirements- 1 mark each (Minimum 4 points)	[4]

UNIT-III

Q5)	a)	What is floating ? Explain its types. Defination-2 marks Types-4 marks	[6]
	b)	Explain in short (i) Coagulation. Diagram-2 marks Explnation-2 marks	[4]

OR

Q6)	a)	Explain the instrumentation in assessment of soil & ground water pollution. Instrummentation-3 marks each	[6]
	b)	Discuss on design criteria of settling tank. Design criteria-1 mark each	[4]