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GUJARAT TECHNOLOGICAL UNIVERSITY ME- SEMESTER II— EXAMINATION – SUMMER 2015

Subject Code: 2721712 Date: 30/05/2015 **Subject Name: Environmental Monitoring** Time: 2:30 PM - 5:00 PM **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. **Q.1** Discuss the objectives of Environmental monitoring. Suggest detailed sampling 07 plan for monitoring. (b) Explain sampling types, size and location with reference to environmental **07** monitoring in general. **Q.2** (a) Describe the steps for monitoring of effluent generated from industry. Also, 07 explain preservation of sample. (b) Mention different methods used for the analysis of water sample and explain 07 any one of them in detail. (b) What are the on-site methods available for the analysis of fresh sample. Explain **07** them in brief. Q.3(a) Discuss the criteria for selecting the location for monitoring of ambient air 07 quality parameters. **(b)** Explain the procedure for monitoring of stack air quality. 07 0.3 (a) Describe the sampling procedure for microbial characterization. 07 **(b)** Explain various methods used for characterizing micro-organisms. 07 **Q.4** What is Global Positioning System. Discuss its role in environmental (a) 07 monitoring. **(b)** Discuss various applications of remote sensing in environmental health. 07 (a) Explain the principle of remote sensing and also discuss the optical properties 0.4 07 of earth surface materials. (b) Enumerate physical contaminants and explain their types, mechanisms and 07 control. 0.5 (a) How microbial contaminants affect the environmental health? Also suggest 07 remedies for the same. (b) Differentiate surface water monitoring and ground water monitoring with 07 reference to parameters, sampling location and sampling methods. OR Q.5 (a) Draw flow chart for collecting ground water samples and explain it in detail. 07 Justify the role of industrialist, environmental engineer and Government for the 07 abatement of pollution with the aids of environmental monitoring.
