Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER-2 (New) • EXAMINATION – SUMMER-2016 Subject Code :2723303 Date: 27/05/ 2016

Subject Name: Water Resources Planning 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. How do you see the significance of feasibility study for effectiveness of water resources **Q.1** (a) 07 project? **07 (b)** Write short notes on: (1) Useful storage. (2) Determination of storage capacity 0.2 Discuss about social and environmental impact of water resource projects. 07 (a) **(b)** Explain reservoir losses and its effects in detail. 07 OR Describe the economical planning by project purpose with suitable example. **(b)** 07 0.3 Discuss the significance of various water laws and policies. 07 (a) **(b)** Write short notes on: 07 Estimation of available water resources project (1) (2) Direct benefits and indirect benefits OR Q.3(a) Write short notes on: 07 (1) General reservoir operation and its schedule (2) Risks in water resources planning Describe the significance of Rate of return method and Reservoir working table. 07 **(b)** Explain various data and considerations required for project formulation. **Q.4** (a) 07 Describe the following terms with reference to plan a new reservoir :-07 **(b)** (1) Feasible service time (2) Full service time OR Describe about integrated water resource management and its various model in brief. **07** 0.4 (a) Write short notes on: 07 **(b)** (1) Life of reservoir (2) Uncertainties in water resources planning Discuss the role of simulation and computer applications for water resource 07 Q.5 (a) planning. (b Discuss the following: **07** (1) Economic planning by project purpose (2) Capital recovery factor OR (a) Signify the need of performance evaluation of water resources project. 07 Q.5 Discuss the role of water resource planning towards the overall development of 07 **(b** country.
