

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER-1 (NEW) EXAMINATION – WINTER 2018

Subject Code: 3711409**Date: 02/01/2019****Subject Name: Advanced Construction Techniques****Time: 02:30 PM To 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full mark.

- Q.1** (a) Enlist various Dewatering techniques for excavations. Explain any two in details. **07**
 (b) How advanced techniques can play effective role in construction management. **07**
 Support your answer with suitable example.
- Q.2** (a) Define Automation. Write advantages and limitation of Automation. **07**
 (b) Explain pile technology with its innumerable application. **07**
- OR**
- (b) Explain Pneumatic caisson with appropriate sketch. **07**
- Q.3** (a) What are the methods for under water construction? And give explanation for any two methods. **07**
 (b) Write construction sequences of Cooling towers. **07**
- OR**
- Q.3** (a) Explain coffer dam with its components. Also write application of coffer dam. **07**
 (b) Explain suitable construction techniques for Tunnel construction. **07**
- Q.4** (a) Enlist various temporary structures. And explain any one in detail. **07**
 (b) Justify “Modular coordination is one of the modern techniques for speedy construction”. **07**
- OR**
- Q.4** (a) Briefly explain basic principles of Modular Co-ordination. Discuss various application of Modular Co-ordination. **07**
 (b) Define erection technology and how it can be useful for construction of industrial building. **07**
- Q.5** (a) Write Sequences for Demolition of high rise building which was affected with fire. **07**
 (b) What is Underpinning? Write application of it with suitable example. **07**
- OR**
- Q.5** (a) Write Safety Precautions for Demolition and Dismantling Work. **07**
 (b) Discuss essential requirements for good formwork. Discuss any two points which can help contractor to select the aluminum formwork over steel formwork. **07**