

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**M.Tech. Winter 2018 - 19 Examination**

**Semester: 1**  
**Subject Code: 203216133**  
**Subject Name: Advanced Construction Technologies**

**Date: 12/12/2018**  
**Time: 10:30 am to 1:00 pm**  
**Total Marks: 60**

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**Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1** A) Write objectives of Modular Coordination (05)  
B) What do you mean by Automation? Explain objectives of Automation in Construction. (05)  
C) What is Form work? Explain its types? (05)
- Q.2 Answer the following questions.** (Attempt any three) (Each five mark) (15)  
A) Write the different operations for construction of tunnel in rock.  
B) What is dewatering technology and why it is required? Enlist Dewatering techniques.  
C) Write short note on "Nanotechnology & Concrete".  
D) What is meant by enabling structures? Why enabling structures are so important in a project?
- Q.3** A) Write a note on: Storage of Various Precast Element (07)  
B) Explain Well-point system in details. (08)
- OR**
- B) What is scaffolding? Enlist types of scaffolding. Explain any two. (08)
- Q.4** A) What is grouting. Describe various grouting methods. (07)
- OR**
- A) Enlist methods of compaction and discuss in detail compaction of vibration. (07)  
B) What is trenchless technique? Enlist and explain various trenchless techniques for new underground utilities. (08)