

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**M.Tech., Winter 2017 - 18 Examination**

**Semester: 1****Date: 04/01/2018****Subject Code: 03215130****Time: 2:00 pm to 4:30 pm****Subject Name: Earth and Rockfill dam****Total Marks: 60**

---

**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) Describe the components of Earth & RockFill Dam? (05)  
B) List out different methods of soil exploration and explain any one method in detail. (05)  
C) What is a Riprap? explain its design criteria for slope protection. (05)
- Q.2** Answer the following questions. (Attempt any three) (15)  
A) Describe the treatment of upstream & downstream slope?  
B) What are the factors affecting selection of a dam section?  
C) Explain the conditions under which slope stability of an earth dam is tested.
- Q.3** A). What are the causes of failure of earth and rockfill dam? Describe in detail. (07)  
B) Explain the design criteria for filter in earth dams? (08)
- OR**
- B) Explain the methods of seepage control through Embankment? (08)
- Q.4** A) Explain the safe design criteria for Earth & RockFill Dam? (07)
- OR**
- A) Give the List of the instruments & their purpose in Earthen Dam? (07)  
B) Describe the method of slices for  $c-\phi$  soil. (08)