

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Summer 2018 – 19 Examination

Semester:2**Subject Code: 203215182****Subject Name: Engineering Rock Mechanics****Date: 10/05/2019****Time: 10:30 AM TO 1:00 PM****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) What the strength criteria's in Rocks? Explain any two. (05)
- B) What are the different Grouting Techniques used in Rocks? Explain any one. (05)
- C) Explain unconformity of rocks and its various classification (05)
- Q.2 Answer the following questions.** (Attempt any three) (Each five mark) (15)
- A) Discuss the different physical properties of rocks.
- B) Discuss the rheological behavior of rocks in detail
- C) Demonstrate the field tests that must be carried out on rocks
- D) Explain the different types of stresses and strains developed in rocks
- Q.3** A) Define Folds. Classify the different types of folds and explain any two. (07)
- B) Enlist the different criterion of failure for Rocks. Explain Mohr- Coulomb Theory (08)
- OR**
- B) Describe the concentration of stresses near the underground openings. (08)
- Q.4** A) Define Metamorphic Rocks. How they are formed? Classify its types. (07)
- OR**
- A) Explain the detailed classification of the rocks. (07)
- B) Describe the stress- strain relationship of rocks in detail (08)