

**B.Tech Sem – VIII (2007 Course) (Civil Engg.) : WINTER -
2017**

**SUBJECT: Elective II: ADVANCED ENGINEERING GEOLOGY WITH ROCK
MECHANICS**

Day: **Wednesday**
Date: **22/11/2017**

Time: **02.30 PM TO 05.30 PM**
Max. Marks: **80**

W-2017-2657

N.B.:

- 1) Q.No.1 and Q.No.5 are **COMPULSORY**. Out of remaining attempt **TWO** questions from each section.
- 2) Figures to **RIGHT** indicate full marks.
- 3) Draw neat labeled diagrams **WHEREVER** necessary.
- 4) Assume suitable data if necessary.
- 5) Both the sections should be written in **SEPARATE** answer books.

SECTION-I

- Q.1** a) Explain the factors affecting the strength of rocks. (05)
b) What treatment is to be given to dykes and joints which are encountered in foundation rocks? (05)
c) Explain the treatment given for stability of Tunnels in Deccan Traps. (04)
- Q.2** Enumerate in detail the strength and water tightness of Deccan Trap Rocks from Dam foundation point of view. (13)
- Q.3** Describe the conditions leading to Tail Channel Erosion in Maharashtra. (13)
- Q.4** Describe the foundation of Piers for Bridges on Compact and Amygdaloidal Basalts? (13)

SECTION-II

- Q.5** a) Explain use of Compact and Amygdaloidal Basalts as Road Aggregates. (05)
b) Describe the process of Decomposition of Granites. (05)
c) Describe in brief the Mechanical Properties of Rocks. (04)
- Q.6** Describe the Ground Water conditions in Maharashtra. (13)
- Q.7** Describe the process of formation of Soils from Basalt Rock. (13)
- Q.8** Describe the parameters of R.M.R. (13)

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