

Seat No.	
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M.E. (Civil) (Construction Management) (Semester - I)

Examination, April - 2016

CONSTRUCTION METHODS

Sub. Code : 34321

Day and Date : Friday, 29 - 04 - 2016

Total Marks : 100

Time : 10.30 a.m. to 01.30 p.m.

- Instructions :**
- 1) Solve any **THREE** questions from **EACH** Section.
 - 2) **Figures to the RIGHT** indicate **FULL** marks.
 - 3) **Make suitable assumptions WHEREVER** necessary.
 - 4) **Neat diagrams must be drawn WHEREVER** necessary.

SECTION - I

Q1) a) An underground railway station is to be constructed. Describe the various components and state the precautions to be taken while constructing the same. [9]

b) Describe the procedures adopted for [8]

i) Under Water Blasting

ii) Under Water Welding

Q2) a) Describe the procedure of grouting for tunnels and shafts. [9]

b) Enlist the various problems in grouting operation and state the probable solution for same [8]

Q3) a) Can you determine in advance the optimum pressure for grouting operations? Explain the method suitable for grouting foundation under a dam [8]

b) State and explain the types of surge chambers [8]

P.T.O.

Q4) a) Describe the factors affecting the design of dewatering system for open excavation. [8]

b) Write a note on Suitability of electro-osmosis method of dewatering. [8]

SECTION - II

Q5) a) Discuss with neat sketches the incremental launching method and its suitability for the erection of long span concrete girder. [9]

b) State the necessity of testing of bridges and describe the equipment used for the same. [8]

Q6) a) Describe the construction of concrete wall movable cofferdam. [8]

b) Describe the problems encountered in Sinking of Caissons. [9]

Q7) a) Discuss the behavior of piles and pile groups under the load with the help of load settlement Curve. [8]

b) Describe the construction of under a ream piles. State the conditions under which they are preferred. Discuss the various difficulties encountered during under ream pile construction . [8]

Q8) a) Write a detail note on Negative and Positive Skin Friction of piles. [8]

b) Discuss with neat sketches Construction Aspects of Suspension Bridge. [8]

