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MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL
A Constituent Institution of Manipal University

**I SEMESTER M.TECH. (CONSTRUCTION ENGINEERING AND
MANAGEMENT)**

END SEMESTER EXAMINATIONS, NOV/DEC 2016

**SUBJECT: CONSTRUCTION METHOD AND EQUIPMENT [CIE 5103]
REVISED CREDIT SYSTEM
(29/11/2016)**

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed

1A.	List out the stages in the process of equipment selection and explain the methods for computing owning and operating cost of an equipment.	05 Marks
1B.	Compare the suitability of adoption of pre-tensioned and post-tensioned concrete as various components of a high rise buildings. Justify your answer.	05 Marks
2.	Write explanatory notes on the following equipment with emphasis on its parts, operation and application. (i) Back hoe (ii) Bull dozer (iii) Tower Crane (iv) Fork lift	10 Marks
3A.	Explain various classifications of compactors and its specific applications	10 Marks
3B.	Explain the layout and operation of batch type of hot bitumen mix plant	05 Marks
4A.	Discuss in detail on classification of framework	05 Marks
4B.	Write a note with emphasis on its specific applications on Hydraulic dredgers	10 Marks
5.	Compute the shuttering materials required with conventional shuttering for a slab shuttering of hall size 6m x 4.2m with peripheral beams 0.3m x 0.6m. The, thickness of the slab is 0.15m.	10 Mark