

Reg. No.									
----------	--	--	--	--	--	--	--	--	--



# Manipal Institute of Technology, Manipal

(A Constituent Institute of Manipal University)



## VII SEMESTER B.TECH (AUTOMOBILE ENGINEERING)

### END SEMESTER EXAMINATIONS, DEC 2015/JAN 2016

SUBJECT: EARTH MOVING EQUIPMENTS AND FARM MACHINERY  
[AAE 473]

### REVISED CREDIT SYSTEM

Time: 3 Hours

MAX. MARKS: 50

#### Instructions to Candidates:

- ❖ Answer **ANY FIVE FULL** the questions.
- ❖ Missing data may be suitable assumed.

- 1A. Classify the rippers and with suitable sketches explain them. **04**
- 1B. With the help of neat sketch explain the working and special features of excavator loader. **04**
- 1C. Differentiate between the wheeled loader and crawler loader. **02**
- 2A. With neat sketch explain the working and special features of a Hoe. **03**
- 2B. Sketch and explain the working of gantry cranes. **03**
- 2C. Classify dredgers and explain the working of ladder type dredger. **04**
- 3A. Classify vibratory compaction equipment's and explain their working. **04**
- 3B. What are the special attachments used in motor graders? Explain the operation and applications. **04**
- 3C. What is ballast tyre? Explain types of ballast tyres? **02**
- 4A. What do you mean by combination devices? With neat sketch explain the operations of lift truck. **03**
- 4B. Classify crane system and with suitable sketch explain the features of mobile crane system. **04**
- 4C. With neat sketch explain the working of Hydraulic lift. **03**
- 5A. With neat sketch explain the working of cableway transport system. **04**
- 5B. Sketch and explain the working of turbocharger system used in earth moving equipment's. **03**

- 5C.** What is power take off shaft? Explain the types of drive to PTO. **03**
- 6A.** Calculate the area covered per day of 8 hours by a tractor drawn four bottom 35cm plough if the speed of the ploughing is 5kmph, the time lost in turning is 10%. **02**
- 6B.** Classify Harrow attachment of tractor and explain the working of single action disc harrow. **04**
- 6C.** With suitable diagram explain the working of bucket type sprayer. **04**