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Total No. of Questions: 09

# B.Tech.(AE) (E-I 2012 to 2017) (Sem.-6) TRACTORS & EARTH MOVING MACHINERY

Subject Code: BTAE/DE-613 M.Code: 71225

Time: 3 Hrs. Max. Marks: 60

#### **INSTRUCTION TO CANDIDATES:**

- SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

#### **SECTION-A**

## 1. Answer briefly:

- a) What types of wheels used in earth moving machines?
- b) State the working principle of lubrication.
- c) Classify special purpose vehicles.
- d) Write any two basic characteristics of truck cranes.
- e) What are the safety devices used in tractors?
- f) Write briefly about shovel.
- g) Define tracked vehicles.
- h) What do you understand by PTO shaft?
- i) What are the specifications of tyres?
- i) List the transmissions used in tractors.



### **SECTION-B**

- 2. Describe the classification of tractors.
- 3. Explain the about the stability and design features of mobile cranes.
- 4. Discuss working of compactors.
- 5. What forces are acting on a tractors on move? Explain them.
- 6. Write short notes on:
  - a) Differential lock
  - b) Forklift.

## **SECTION-C**

- 7. a) Write in detail about Tracked vehicles.
  - b) Discuss maintenance and operation of tractors.
- 8. What is the working principle of braking system? Explain its working.
- 9. Explain construction and working bull dozer.

NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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