



# CBCS SCHEME

15AU741

## Seventh Semester B.E. Degree Examination, Jan./Feb. 2021 Earthmoving Equipments and Tractors

Time: 3 hrs.

Max. Marks: 80

**Note:** Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Name the types of Earth moving equipments and write their respective applications. (08 Marks)  
b. Explain with a simple sketch, the construction and working of Bulldozer. (08 Marks)

OR

- 2 a. How do you classify the Scrapers? Sketch and explain the working of Scraper. (08 Marks)  
b. How do you classify the Excavator's? Sketch and explain the working of Excavator. (08 Marks)

### Module-2

- 3 a. Discuss the functions of Turbo charger in earth moving vehicle engine. (08 Marks)  
b. What is After Cooler? Briefly discuss the Water cooled and Air cooled after coolers. (08 Marks)

OR

- 4 a. Explain briefly the Tracked vehicles and mention their applications. (08 Marks)  
b. Compare tyred and tracked type of vehicles. (08 Marks)

### Module-3

- 5 a. Name the basic type of transmission and explain anyone type in detail. (08 Marks)  
b. Explain with neat sketch of Planetary transmission.. (08 Marks)

OR

- 6 a. Explain the construction and working of hydro shift automatic transmission. (08 Marks)  
b. What is PTO Shaft? Explain the working and applications of PTO shaft in tractors. (08 Marks)

### Module-4

- 7 a. Enumerate the types of pumps used in hydraulic system and explain anyone type with neat sketch. (08 Marks)  
b. Enlist the types of control valves in hydraulic system and explain any two types of valves. (08 Marks)

OR

- 8 a. Sketch and explain the working of Depth and Draft control system. (08 Marks)  
b. Briefly discuss the functions and applications of hydraulic motors and hydraulic cylinders. (08 Marks)

### Module-5

- 9 a. Discuss briefly the various factors to be considered while selecting the earth moving equipment. (08 Marks)  
b. Explain the factors affecting the productivity of a bulldozers. (08 Marks)

OR

- 10 a. Briefly explain the various safety measures adopted for earth moving equipments. (08 Marks)  
b. Discuss the various types of maintenance and their purpose and advantages of Earth moving equipments. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.