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10AU81

Eighth Semester B.E. Degree Examination, Dec.2019/Jan.2020
Earth Moving Equipments and Tractors

Time: 3 hrs.

Max. Marks:100

Note: Answer FIVE full questions, selecting at least TWO questions from each part.

PART - A

- 1 a. Write the classification of Dozers? Explain the working of bulldozer with a sketch. (10 Marks)
b. With a help of diagram compare the constructions of working of wheeled and crawler tractor. (10 Marks)
- 2 a. With a neat sketch explain the working principle of automatic injection timer. (12 Marks)
b. Write a short note on :
i) Turbo charger
ii) After cooler. (08 Marks)
- 3 a. With a neat sketch explain each component of undercarriage construction. (12 Marks)
b. Explain the working on Rubber shear spring type of suspension with a sketch. (08 Marks)
- 4 a. Sketch and explain the working principle of synchromesh Gear box. (10 Marks)
b. Sketch and explain the transmission drive type P.T.O shaft. (10 Marks)

PART - B

- 5 a. Sketch and explain the working of piston pump with stationary can and rotating block. (10 Marks)
b. Sketch and explain the working of hydraulic draft control mechanism used in tractors. (10 Marks)
- 6 a. Explain the construction and working of powersteering system with a sketch. (10 Marks)
b. Explain the construction and working of disc brake used in tractors with a sketch. (10 Marks)
- 7 a. What are the objectives of maintenance explain the various functions and advantages of preventive maintenance. (12 Marks)
b. Explain the role of documentation in maintenance department. (08 Marks)
- 8 a. List the classification of soils. Explain how soil properties affect the performance of earth moving equipments. (10 Marks)
b. Briefly discuss the factors on which the production (output) of a bulldozer depends with necessary equations. (10 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.