

USN

--	--	--	--	--	--	--	--	--	--

10AU81

Eighth Semester B.E. Degree Examination, June/July 2018
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. Name the types of earth moving equipments, and write their respective applications. (10 Marks)
- b. Briefly discuss the working of Shovel, with simple line diagram. (06 Marks)
- c. List out the special attachments to the tractors. (04 Marks)
- 2 a. Enlist the different working systems of engine and highlight the special features for earth moving vehicles. (10 Marks)
- b. Explain the importance of following in earth moving vehicle engines:
(i) Turbochargers. (ii) After coolers. (10 Marks)
- 3 a. Compare tyred Vs Tracked type of vehicles. (06 Marks)
- b. With the aid of neat sketch, briefly explain the under carriage components of a earth moving vehicle. (10 Marks)
- c. State the advantages of rubber spring suspension. (04 Marks)
- 4 a. Explain the construction and working of a compound transmission system. (10 Marks)
- b. Name the types of reduction drives, discuss any one type. (06 Marks)
- c. List out the applications of PTO shaft. (04 Marks)

PART – B

- 5 a. Explain the functions of following in hydraulic system of a earthmoving vehicles:
(i) Pumps (ii) Valves (iii) Hydraulic cylinders. (12 Marks)
- b. Draw and show the components of depth and draft control system. (08 Marks)
- 6 a. Name the types of power steering and explain any one type in detail. (10 Marks)
- b. Explain the working principles of,
(i) Articulated steering.
(ii) Disc brake system. (10 Marks)
- 7 a. Discuss the importance of maintenance in earth moving vehicles. State the advantages. (10 Marks)
- b. Write short notes on :
(i) Schedule purpose.
(ii) Safety methods in earth moving vehicles. (10 Marks)
- 8 a. Discuss the various methods of selection, of earth moving equipments. (10 Marks)
- b. Define productivity. Explain about the improvement of productivity in earth moving vehicles. (10 Marks)

* * * * *