

(Following Paper ID and Roll No. to be filled in your
Answer Books)

Paper ID : 189663

Roll No.

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

B.TECH.

Theory Examination (Semester-VI) 2015-16

LAND DEVELOPMENT MACHINERY

Time : 3 Hours

Max. Marks : 100

Section-A

Q1. Attempt all parts of the following:

(2×10=20)

- (a) What do you mean by hauling distance?
- (b) What do you mean by shrinkage?
- (c) Name any four types of land clearing equipment.
- (d) Define the Rolling resistance.
- (e) Name any four types of tractors.
- (f) Name the uses of tractors.

- (g) What are the types of draglines?
- (h) For what purpose a hoe is used?
- (i) What is the function of leveler?
- (j) Where does a power shovel is used?

Section-B

Q2. Attempt any five parts of the following: (10×5=50)

- (a) Explain the output performance capacities of a wagon.
- (b) Classify the trucks as per their utilizations.
- (c) "Describe the basis parts of cable operated hoes.
- (d) How will you find the size, basic parts and angle of swing of draglines?
- (e) Discuss the types of equipments used for land clearing operations.
- (f) How will you find the effect of grade on the required tractive efforts?

- (g) What is the effect of altitude and temperature on the performance of I.C. engine?
- (h) What is the working principle of motor grader? How can the capacity be determined?

Section-C

Attempt any two parts of the following: (15×2=30)

- Q3. Write an essay on "Levellers and Land planers".
- Q4. Classify soil stabilization and compaction equipments. Describe any one of them.
- Q5. Write short note on the following:
 - (i) Grade resistance and gradiability
 - (ii) Balancing capacities of hauling units.