

CBCS SCHEME

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BAU405D

Fourth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026 Earth Moving Equipment

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.

2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1			M	L	C
Q.1	a.	List and explain different types of earth moving equipment.	10	L2	CO1
	b.	Explain working principle and application of loaders.	10	L2	CO1
OR					
Q.2	a.	Discuss the working principle of Graders and excavators.	10	L3	CO1
	b.	List Tractors and its attachments. Explain any one of its type.	10	L3	CO1
Module – 2					
Q.3	a.	With a neat sketch, explain under carriage system.	10	L2	CO2
	b.	With a neat sketch, discuss the working of rubber spring suspension system.	10	L3	CO2
OR					
Q.4	a.	Briefly discuss : i) Automatic injection timer ii) Turbo charger.	10	L2	CO2
	b.	Explain with a neat sketch Air spring suspension system.	10	L2,3	CO2
Module – 3					
Q.5	a.	Explain with a neat sketch planetary gear box system.	10	L4	CO3
	b.	Elaborate axially and compound transmission system.	10	L3,4	CO3
OR					
Q.6	a.	With a simple layouts, list and explain types of reduction gears.	10	L2,3	CO3
	b.	With a sketch and explain PTO shaft.	10	L2	CO3
Module – 4					
Q.7	a.	Explain with basic layout of a hydraulic system.	10	L2	CO4
	b.	Explain cylinder cushioning with a neat sketch.	10	L3	CO4
OR					
Q.8	a.	Explain gear motor with neat sketch.	10	L3	CO4
	b.	Explain with a neat sketch unloading valves.	10	L4	CO4
Module – 5					
Q.9	a.	Explain how soil type haul distance and weather conditions influence the selection of earth moving equipment for construction site.	10	L4	CO5
	b.	Analyze the advantages and limitations of different types of maintenance schedules (preventive, predictive, and corrective) for earth moving equipment.	10	L3	CO5
OR					
Q.10	a.	Evaluate the effectiveness of current safety methods and organizational setups in ensuring the operational safety of heavy earth moving machinery suggest improvement.	10	L2	CO5
	b.	List and explain safety methods used for earth moving equipments.	10	L3	CO5
