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**Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)**



B. Sc. (Ag.) (Second Semester - Regular) Examinations, April – 2026

AC 223 - Problematic soils and their Management

Time: 2 hrs

Maximum: 40 Marks

Answer ALL questions

(The figures in the right hand margin indicate marks)

PART – A

(2 x 5 = 10 Marks)

Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. What is total acidity?	CO1	3
b. Define soil surface crusting. What are its impact on soil properties?	CO2	2
c. What are calcareous soils?	CO3	1
d. What is surface creep?	CO1	1
e. What is bioremediation?	CO2	2

PART– B

(6 x 5=30 Marks)

Answer **any 6** the questions

	Marks	CO #	Blooms Level
2. What are the types of acidic soils? Explain the formation of acid soils.	5	CO3	2
3. Explain biological problematic soils.	5	CO1	1
4. Describe management practices for soil erosion.	5	CO4	3
5. Explain the land capability classification system.	5	CO1	2
6. Define wastelands. Explain different types of wastelands prevalent in India.	5	CO2	1
7. Elaborate the types of salt affected soils. Explain briefly about their management practices.	5	CO3	2
8. Explain the management practices for ameliorating acidic soils. Explain CCE. Find out the amount of slaked lime (CaO) required to ameliorate an acidic soil, if the required amount of lime (CaCO ₃) is 3.5t/ha for the same soil.	5	CO1	3
9. Explain steps of wind erosion. What is grassed waterways?	5	CO2	2

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