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# COER University

## END SEMESTER EXAMINATION, EVEN SEM 2022-23

Time : 3 hours

Total Marks : 100

Program Name : B.Sc.(Hons.)Agriculture

Semester : IV

Course Name : Problematic Soils and their Management

Course Code : BSAG404

Note: All questions are compulsory. No student is allowed to leave the examination hall before the completion of the time.

Q. No 1	Attempt Any Five Parts. Each Question Carries 5 Marks.	CO	BL
(a)	What are soil quality indicators and why are they important?	CO 1	1
(b)	Write the salient aspects of the nutrient cycle on maintaining soil quality.	CO 1	1
(c)	Write the physical properties of soil.	CO 1	1
(d)	Write a short note on soil profile.	CO 1	1
(e)	Discuss importance and types of tillage.	CO 1	2
(f)	Describe the management of polluted soil.	CO 1	2

Q. No 2	Attempt Any Five Parts. Each Question Carries 5 Marks.	CO	BL
(a)	How do acid soils affect the growth and development of plants?	CO 2	4
(b)	Differentiate between saline and sodic soil.	CO 2	2
(c)	Define water pollution. Discuss its causes & remediation.	CO 2	2
(d)	Describe the measures that can be taken to manage and reclaim acid and acid sulphate soils.	CO 2	2
(e)	What are the key characteristics of eroded soils and how do they impact soil fertility and plant growth?	CO 2	1
(f)	What management practices can be employed to improve plant growth in acid soils?	CO 2	1

Q. No 3	Attempt Any Five Parts. Each Question Carries 5 Marks.	CO	BL
(a)	What are the different physical and chemical techniques available for remediating polluted soils?	CO 3	2
(b)	Discuss irrigation water quality and standards.	CO 3	2
(c)	Differentiate the saline and brackish water.	CO 3	2
(d)	Explain the process of phytoremediation and how it can be used to clean up polluted soils.	CO 3	4
(e)	Describe the role of microbial bioremediation in the treatment of polluted soils.	CO 3	2
(f)	Describe the methods used for assessing soil pollution, such as soil testing and environmental monitoring.	CO 3	2

Q. No 4	Attempt Any Five Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Define multi-purpose tree species and explain their importance in soil bioremediation.	CO 4	2
(b)	What is suitability of land. Give the classification of land suitability.	CO 4	2,3
(c)	Write the botanical names of five multipurpose tree species.	CO 4	2
(d)	Explain the factor that create problem in soil.	CO 4	2
(e)	Define land capability. How land capability evaluated. Give the classification of land capability.	CO 4	1,4
(f)	Write an essay on saline & sewage water in agriculture.	CO 4	1

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