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Enrollment No.....



Faculty of Agriculture

End Sem (Even) Examination May-2022

AG3CO09 Soil & Water Conservation Engineering

Programme: B.Sc. (Hons.) Branch/Specialisation: Agriculture

Duration: 3 Hrs.

Maximum Marks: 50

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. Which of the following is not a measure for soil conservation? **1**
(a) Strip cropping (b) Terrace cultivation
(c) Shelter belts (d) Overdrawing of ground water
- ii. Soil erosion is caused due to- **1**
(a) Rapid urbanization (b) Cutting of tree
(c) Over grazing by animals (d) All of these
- iii. Sheet erosion is also called- **1**
(a) Surface flow erosion (b) Direct flow erosion
(c) Channel flow erosion (d) None of these
- iv. Which is not a types of water erosion? **1**
(a) Splash erosion (b) Sheet erosion
(c) Suspension (d) Ravines
- v. Which crop is soil erosion resisting crops is- **1**
(a) Grasses (b) Legumes
(c) Both (a) and (b) (d) Cereals
- vi. Erosion permitting crops are- **1**
(a) Sorghum (b) Maize
(c) Millets (d) All of these
- vii. USLE was developed for- **1**
(a) African condition (b) U.K. conditions
(c) American condition (d) None of these
- viii. USLE is used for predicting- **1**
(a) Cropping system (b) Farm planning
(c) Erosion potential (d) All of these

- ix. Wind erosion is more in- **1**
(a) Cohesive soil (b) Non cohesive soil
(c) Rocky soil (d) All of these
- x. Wind erosion is common in- **1**
(a) Humid zones (b) Arid zones
(c) Arid and semi-arid zones (d) Arid and Humid zones

- Q.2 i. What is soil erosion? **1**
ii. What is splash erosion? **2**
iii. What is soil and water conservation? Write the principles of soil erosion. **5**
- OR iv. What is erosion? Also write types of erosion in detail. **5**
- Q.3 i. What is rill erosion? **1**
ii. Write the soil loss measurement techniques. **3**
iii. What are the difference between U shape and V shape gully erosion? **4**
- OR iv. Explain the USLE equation. **4**
- Q.4 i. Define the strip cropping. **2**
ii. Explain the contour bund and graded bund. **6**
- OR iii. Described the contour cultivation and strip cropping. **6**
- Q.5 i. What is grassed water way? **2**
ii. What is water harvesting? **2**
iii. Write the techniques of water harvesting. **4**
- OR iv. Explain the method of water harvesting in hilly and arid region. **4**
- Q.6 Attempt any two:
i. Write the mechanism of soil erosion. **4**
ii. What are the types of soil movement? **4**
iii. Write some measure for soil conservation. **4**

P.T.O.

Marking Scheme

AG3CO09 Soil & Water Conservation Engineering

Q.1	i.	Which of the following is not a measure for soil conservation?		1
		(d) Overdrawing of ground water		
	ii.	Soil erosion is caused due to-		1
		(d) All of these		
	iii.	Sheet erosion is also called-		1
		(a) Surface flow erosion		
	iv.	Which is not a types of water erosion?		1
		(c) Suspension		
	v.	Which crop is soil erosion resisting crops is-		1
		(c) Both (a) and (b)		
	vi.	Erosion permitting crops are-		1
		(d) All of these		
	vii.	USLE was developed for-		1
		(c) American condition		
	viii.	USLE is used for predicting-		1
		(d) All of these		
	ix.	Wind erosion is more in-		1
		(b) Non cohesive soil		
	x.	Wind erosion is common in-		1
		(c) Arid and semi-arid zones		
Q.2	i.	Soil erosion		1
	ii.	Splash erosion		2
	iii.	Soil and water conservation	2 marks	5
		Principles of soil erosion	3 marks	
OR	iv.	Erosion	2 marks	5
		Types of erosion	3 marks	
Q.3	i.	Rill erosion		1
	ii.	Soil loss measurement techniques.		3
	iii.	Difference between U shape and V shape gully erosion		4
		As per the explanation		
OR	iv.	USLE equation		4
		As per the explanation		

Q.4	i.	Definition of strip cropping.		2
	ii.	Contour bund	3 marks	6
		Graded bund	3 marks	
OR	iii.	Contour cultivation	3 marks	6
		Strip cropping	3 marks	
Q.5	i.	Grassed water way		2
	ii.	Water harvesting		2
	iii.	Techniques of water harvesting		4
OR		As per the explanation		
	iv.	Method of water harvesting in hilly	2 marks	4
		Method of water harvesting in arid region	2 marks	
Q.6		Attempt any two:		
	i.	Mechanism of soil erosion.		4
		As per the explanation		
	ii.	Types of soil movement		4
		As per the explanation		
	iii.	Measure for soil conservation.		4
		As per the explanation		
