



**Faculty of Agriculture**  
**End Sem Examination May-2024**

**AG3CO43**

**Rainfed Agriculture & Watershed Management**

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. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1 i. Central Research Institute for dry land agriculture is located at- **1**  
(a) Dehradun (b) Solapur (c) Hyderabad (d) Bizapur
- ii. Cultivation of crops in regions receiving more than 1150 mm rainfall is known as \_\_\_\_\_. **1**  
(a) Rainfed farming (b) Dry land farming  
(c) Dry land farming (d) Mixed farming
- iii. Central arid zone research institute is located at- **1**  
(a) Ludhiana (b) Kanpur (c) Jodhpur (d) Solapur
- iv. Which type of tillage operation in dry lands improves moisture conservation? **1**  
(a) Off season shallow tillage (b) Deep tillage once in 2-3 years  
(c) Shallow tillage in red soils (d) All of these
- v. Degradation of environment in dry lands is due to \_\_\_\_\_. **1**  
(a) Increasing biotic pressure  
(b) Absence of management options  
(c) Lack of water resources  
(d) All of these
- vi. Main component of watershed is \_\_\_\_\_. **1**  
(a) Soil and water conservation  
(b) Water harvesting and crop management  
(c) Alternate land use system  
(d) All of these
- vii. Which crop among the following is well adapted to transplanting under late onset of monsoon? **1**  
(a) Finger millet (b) Pearl millet  
(c) Foxtail millet (d) None of these

- [2]
- viii. Legume crop gives good cover for land during rainy season is \_\_\_\_\_. **1**  
(a) Cowpea (b) Mung bean  
(c) Both (a) and (b) (d) None of these
- ix. Watershed is also called as \_\_\_\_\_. **1**  
(a) Catchment area (b) Drainage basin  
(c) Both (a) and (b) (d) None of these
- x. Most economical lining material for large pond is \_\_\_\_\_. **1**  
(a) Natural clay (b) Bentonite  
(c) Cement concrete (d) Polyethylene sheet

- Q.2 i. Define rainfed agriculture. **1**  
ii. Write the types of rainfed agriculture. **2**  
iii. Explain history of rainfed agriculture and watershed in India. **5**  
OR iv. Explain problems and prospects of rainfed agriculture in India. **5**
- Q.3 i. What is drought? **1**  
ii. Write the types of drought. **3**  
iii. Explain effect of water deficit on physio-morphological characteristics of the plants. **4**  
OR iv. Explain soil and water conservation techniques. **4**
- Q.4 i. Define water harvesting. **2**  
ii. Explain importance of water harvesting techniques. **6**  
OR iii. Explain efficient utilization of water through soil and crop management practices. **6**
- Q.5 i. What is contingent crop planning? **2**  
ii. Write the objectives of contingent crop planning. **2**  
iii. Explain contingent crop planning for aberrant weather conditions. **4**  
OR iv. Explain management of crops in rainfed areas through contingent crop planning. **4**
- Q.6 Attempt any two: **4**  
i. Explain factors affecting watershed management. **4**  
ii. Explain the principles of watershed management. **4**  
iii. Explain components of watershed management. **4**

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## Marking Scheme

### Rainfed Agriculture & Watershed Management (T) - AG3CO43 (T)

Q.1	i)	Hyderabad	1
	ii)	Rainfed farming	1
	iii)	Jodhpur	1
	iv)	All of these	1
	v)	All of these	1
	vi)	All of these	1
	vii)	Finger millet	1
	viii)	Both a and b	1
	ix)	(b)	1
	x)	Natural clay	1
Q.2	i.	Define rainfed agriculture.	1
	ii.	Write the types of rainfed agriculture.	2
	iii.	Explain History of rainfed agriculture and watershed in India. Any Five points (4+ 1 Marks )	5
OR	iv.	Explain Problems and prospects of rainfed agriculture in India. Any Five points ( 2+3 Marks )	5
Q.3	i.	What is drought?	1
	ii.	Write the types of drought.	3
	iii.	Explain effect of water deficit on physio-morphological characteristics of the plants. Any four points (1+3 Marks)	4
OR	iv.	Explain Soil and water conservation techniques. Any four points (1+3 Marks)	4
Q.4	i.	Define water harvesting.	2
	ii.	Explain importance of Water harvesting techniques.	6
		Any six points (2+4 Marks)	
OR	iii.	Explain efficient utilization of water through soil and crop management practices. Any six points (2+4 Marks )	

			6
Q.5	i.	What is contingent crop planning?	2
	ii.	Write the objectives of contingent crop planning. (2+2 Marks )	2
	iii.	Explain contingent crop planning for aberrant weather conditions. Any four points (2+2 Marks )	4
OR	iv.	Explain management of crops in rainfed areas through contingent crop planning. Any four points	4
Q.6			
	i.	Explain factors affecting watershed management. Any four points ( 1 +3 Marks )	4
	ii.	Explain Principles of components of watershed management. Any four points ( 2 +2 Marks )	4
	iii.	Explain components of watershed management. Any four points ( 2 +2 Marks )	4