

Total No. of Questions: 6

Total No. of Printed Pages: 3

Enrollment No.....



Faculty of Agriculture
End Sem (Even) Examination May-2022
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.

- Q.1 i. How much percent of the contribution (production) of rainfed agriculture in India for total food grain? 1
(a) 70 % (b) 90 % (c) 48 % (d) 50 %
- ii. The term green revolution was first used by- 1
(a) William Gaud (b) Dr. N. E. Borlaug
(c) C. T. Patel (d) Dr. M. S. Swaminathan
- iii. A line joining the points of equal elevation is called _____. 1
(a) Contour Farming (b) Dry farming
(c) Dryland farming (d) Rainfed farming
- iv. Close growing crops which protect soil are known as _____. 1
(a) Erosion resisting crops (b) Erosion permitting crops
(c) Both (a) and (b) (d) None of these
- v. is the key input in dryland agriculture. 1
(a) Rain water (b) Pond water
(c) Lake water (d) River water
- vi. Central Research Institute for Dry land Agriculture is located at- 1
(a) Dehradun (b) Solapur (c) Hyderabad (d) Bizapur
- vii. ICRISAT was established in the _____. 1
(a) 1980 (b) 1972 (c) 1945 (d) 1965
- viii. Rows of trees planted for protection of crops against wind are called- 1
(a) Wind breaks (b) Wind vane
(c) Shelterbelts (d) None of these

P.T.O.

[2]

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| ix. | Example of Agri-silviculture is ____. | 1 |
| | (a) Acacia + Cenchrus + Stylosanthus | |
| | (b) Leucaena leucocephala + Sorghum | |
| | (c) Sissoo + Cenchrus + Stylosanthus | |
| | (d) Dicanthicum annulatum | |
| x. | Alley cropping is also known as..... | 1 |
| | (a) Multiple cropping (b) Relay cropping | |
| | (c) Mixed cropping (d) Avenue cropping | |
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| Q.2 | i. | Define water balance Equation. | 1 |
| | ii. | Define classification of India into different zones based on rainfall. | 2 |
| | iii. | What is rainfed agriculture? Distinguish dryland farming and rainfed farming based on different constituents. | 5 |
| OR | iv. | Explain problems or constraints for crop production in dry farming areas. | 5 |
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| Q.3 | i. | What is strip cropping? | 1 |
| | ii. | Define soil loss water equation. | 3 |
| | iii. | What is drought? Discuss the different types of droughts in detail. | 4 |
| OR | iv. | What is erosion? Explain types of water erosion. | 4 |
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| Q.4 | i. | What is crop adaptation? | 2 |
| | ii. | Explain the different crop adaptation mechanism for conserving moisture stress | 6 |
| OR | iii. | Explain the different water harvesting techniques that are followed in arid and semi-arid regions | 6 |
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| Q.5 | i. | What is contingency crop planning? | 2 |
| | ii. | What is aberrant weather condition? | 2 |
| | iii. | Explain the contingency crop planning for different rainfall abnormalities. | 4 |
| OR | iv. | Explain crop planning for successful crop production under water scarcity and dry farming condition. | 4 |

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| Q.6 | Attempt any two: | |
| i. | What is watershed? What are the principles of the watershed management? | 4 |
| ii. | What is watershed management? What are the objectives of watershed management? | 4 |
| iii. | Explain alternate land use system with their advantages. | 4 |

Marking Scheme

AG3CO43 Rainfed Agriculture & Watershed Management

Q.1	i.	How much percent of the contribution (production) of rainfed agriculture in India for total food grain? (c) 48 %	1
	ii.	The term green revolution was first used by- (a) William Gaud	1
	iii.	A line joining the points of equal elevation is called____. (a) Contour Farming	1
	iv.	Close growing crops which protect soil are known as ____. (a) Erosion resisting crops	1
	v. is the key input in dryland agriculture. (a) Rain water	1
	vi.	Central Research Institute for Dry land Agriculture is located at- (c) Hyderabad	1
	vii.	ICRISAT was established in the ____. (b) 1972	1
	viii.	Rows of trees planted for protection of crops against wind are called- (c) Shelterbelts	1
	ix.	Example of Agri-silviculture is____. (b) Leucaena leucocephala + Sorghum	1
	x.	Alley cropping is also known as..... (d) Avenue cropping	1
Q.2	i.	Define water balance Equation.	1 Mark 1
	ii.	As per the explanation	2 Marks 2
	iii.	What is rainfed agriculture Distinguish dryland farming and rainfed farming based on different constituents.	1 Mark 5 4 Marks
OR	iv.	problems or constraints name Explain problems or constraints for crop production in dry farming areas.	1.5 Marks 5 3.5 Marks
Q.3	i.	Strip cropping	1 Mark 1
	ii.	Define soil loss water equation. Derivation of soil loss water equation.	1 Mark 3 2 Marks
	iii.	What is drought	1 Mark 4
		Discuss the different types of droughts in detail.	3 Marks

OR	iv.	What is erosion Explain types of water erosion.	1 Mark 4 3 Marks
Q.4	i.	What is crop adaptation	2 Marks 2
	ii.	Enlist the different crop adaptation mechanism for conserving moisture stress Explain the different crop adaptation mechanism for conserving moisture stress	2 Marks 6 2 Marks 4 Marks
	iii.	Enlist the different water harvesting techniques that are followed in arid and semi-arid regions Explain the different water harvesting techniques that are followed in arid Explain the different water harvesting techniques that are followed in semi-arid regions	6 2 Marks 2 Marks 2 Marks
Q.5	i.	As per the explanation	2 Marks 2
	ii.	As per the explanation	2 Marks 2
	iii.	As per the explanation	4 Marks 4
OR	iv.	As per the explanation	4 Marks 4
Q.6		Attempt any two:	
	i.	What is watershed What are the principles of the watershed management	1 Mark 4 3 Marks
	ii.	What is watershed management What are the objectives of watershed management	1 Mark 4 3 Marks
	iii.	Explain alternate land use system with their advantages Advantages of alternate land use system	4 2 Marks 2 Marks
