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B.Sc. (Hons.) (Agriculture) (Sem.-6)

RAINFED AGRICULTURE AND WATERSHED MANAGEMENT

Subject Code : BSAG-601-19

M.Code : 91792

Date of Examination: 22-01-2023

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A

1. **Write briefly :**
 - a. Catchment area
 - b. Dust mulch
 - c. Dry farming
 - d. Rill erosion
 - e. Precipitation
 - f. Contour
 - g. Check dam
 - h. Lay farming
 - i. Contingency cropping
 - j. Storage facility.

SECTION-B

2.
 - a. Give brief account of major climatic factors on crop growth and productivity.
 - b. Do you think '*Apparent drought*' has similar effect on crops of varied water requirements and those grown on different soils?
3.
 - a. Do you think that vertisols and alfisols have similar kind of limitations for crop production?
 - b. Enlist at least two interventions required for successful crop production.
4.
 - a. How '*Physiological drought*' is different from '*Mid season drought*'?
 - b. What are the effects of drought on metabolic processes of plant growth and development?
5.
 - a. Do you agree that '*Aridity*' and '*Drought*' are synonymous? Give justification.
 - b. Which stage of crop growth is most sensitive to moisture stress and how?
6. What is ex-situ management land and water conservation practices?

SECTION-C

7. Comment (write agreed/disagreed only; rewrite correctly if disagreed)
 - a. The size of Milli watershed is 1-10 sq. km
 - b. Dry Alfisol soils are easy to till.
 - c. Sub-surface tillage improves the overall biological condition of the soil.
 - d. Women participates actively in dryland farming.
 - e. Collection and storage of water for subsequent use is known as run-off farming.
8. Enlist the interventions required for early onset of monsoon with heavy rains followed by its early withdrawal.
9. Define watershed and write down principles of watershed management.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.