



**KERALA AGRICULTURAL UNIVERSITY**

**B.Sc. (Hons.) Ag. 2018 admission**

**II Semester Final Examination-July-2019**

**Agro.1203**

**Irrigation and water management (1+1)**

**Marks: 50**

**Time: 2 hours**

**I State True or False (10x1=10)**

- 1 Water use efficiency of crops is not influenced by irrigation methods.
- 2 Consumptive water use includes percolation losses of water in field.
- 3 The water requirement of rice crop is 425 mm.
- 4 Bajra plant cannot be used as an indicator plant for scheduling of irrigation.
- 5 The field capacity is the characteristic of plant rather than soil.

**Fill in the blanks**

- 6 Application of herbicide through irrigation water is called.....
- 7 The moisture which exists between field capacity and wilting point is ..... water.
- 8 Effective root zone of tomato crops for moisture uptake is up to..... cm.
- 9 One ha-cm of water is equal to .....lit.
- 10 The soil moisture tension at maximum water holding capacity..... atm.

**II Write short notes on ANY FIVE of the following (5x2=10)**

- 1 Evapotranspiration (ET)
- 2 Drip irrigation
- 3 Consumptive water use
- 4 Check-basin method of irrigation.
- 5 Volume wetness.
- 6 Crop coefficient
- 7 Conjunctive water use

**III Answer ANY FIVE of the following (5x4=20)**

- 1 Dissolved salts in irrigation water
- 2 Write an importance of soil moisture estimation and briefly explain any one of them.
- 3 Merits and demerits of surface irrigation.
- 4 Irrigation water management in paddy.
- 5 Darcy's Law.
- 6 Capillary water.
- 7 Soil moisture constants.

**IV Write an essay on ANY ONE of the following (1x10=10)**

- 1 How to improve water use efficiency in crops.
- 2 Discuss scheduling of irrigation based on IW/ CPE ratio.

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