

2018

CBCS

1st Semester

AGRO SERVICE

PAPER—C2T

(Vocational)

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Unit—I

Basic concept of soil

[Marks : 20]

1. Answer any *two* questions : 2×2

(a) What are the different components of soil ?

(Turn Over)

- (b) What is meant by soil colloid ?
- (c) What are the sources of irrigation water ?
- (d) Write down the factors affecting in soil structure.

2. Answer any *two* questions : 4×2

(a) Discuss role of soil water in respect of Plant Growth. 4

(b) Write down the important features of acid soils. 4

(c) Write down the density and porosity of soil. 4

(d) Critically discuss the importance of watershed management or integrated irrigation management. 4

3. Answer any *one* question : 1×8

(a) **Critically discuss in detail problems and prospects of saline soil in West Bengal.** 4+4

(b) Write down different methods of irrigation and their merits and demerits. 4+4

Unit—II**Basic Concept of Irrigation Management****[Marks : 20]**

4. Answer any *two* questions : 2×2

- (a) What do you mean by irrigation ?
- (b) Write down the importance of irrigation.
- (c) What do you mean by surface irrigation ?
- (d) Write down the system of furrow irrigation.

5. Answer any *two* questions : 4×2

- (a) Write down method of sprinkler and drip irrigation system.
- (b) Discuss the importance of ground water for crop growth.
- (c) Discuss in detail ring method of irrigation.
- (d) Enumerate Border strip method of irrigation.

6. Answer any one question :

1×8

- (a) Write down irrigation scheduling of Boro rice in West Bengal mentioning
- (i) time of irrigation,
 - (ii) physiological stages of crop
 - (iii) soil moisture status
 - (iv) soil water tension and evapo-transpiration.
- (b) Discuss in details Integrated (surface and ground water combination) irrigation management for sustainable agriculture.
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