No. of Printed Pages : 2

ET-537(A)

B.Tech. Civil (Water Resources Engineering)

Term-End Examination

00077

December, 2017

ET-537(A) : SOIL CONSERVATION AND AGRONOMY

Time : 3 hours *Maximum Marks : 70*

Note : *Answer any* ***seven*** *questions. All questions carry equal marks. Use of non-programmable scientific calculator is allowed.*

1. Explain the mechanism of raindrop erosion. What are the different causative factors of water erosion ? Explain. *10*

2. Describe the advantages and limitations of drop spillways. Briefly explain the function of different components of a drop spillway. *10*

3. Describe nutrient and weed management in rice crops. Also, briefly explain different diseases of rice and their control measures. *10*

4. Explain different temporary structures for erosion control. Enlist their merits and demerits. *10*

5. "Irrigation and drainage are two faces of the same coin." Explain. Explain different types of drainage systems suitable for our farming conditions. *10*

6. Derive Hooghoudt's equation for determining the spacing of file drainage. Also state the assumptions made. *10*

7. What are the challenges in cotton cultivation ? Explain water management and disease control measures in cotton crops. *10*

8. What are the factors responsible for causing salinity in certain areas ? Describe saline soil reclamation methods. *10*

9. What are the traditional rainfall farming practices ? What improvements have been suggested in this regard ? *10*

10. Write short notes on any ***four*** of the following : $4 \times 2\frac{1}{2} = 10$

(a) Measures to Control Wind Erosion

(b) Design of Bench Terrace

(c) Importance of Drainage Coefficient

(d) Integrated Pest Management

(e) Drought Management
