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Total No. of Printed Pages: 1

Total No. of Questions: [09]

B.Sc. Agriculture (Semester-7th)
SOIL PHYSICAL AND BIOLOGICAL ENVIRONMENT
Subject Code: BAGE2701
Paper ID: [130154]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a) What does agricultural runoff mean?
- b) What is infiltration?
- c) What is evaporation from soil?
- d) Why are soil physical properties important?
- e) How an organism is formed?
- f) What are the 4 physical properties of soil?
- g) What is the importance of evaporation?
- h) What is the importance of organism in the environment?
- i) How does carbon affect microbial growth?
- j) What is microbial transformation of nitrogen?

Section – B

(5 marks each)

- Q2. What is soil aeration and why is it important?
- Q3. Which physical properties of soil are important to us and describe briefly?
- Q4. What are the redistribution of water in the soil and the causes of soil water movement?
- Q5. What is a runoff and describe the factors that affect runoff?
- Q6. How does microbial transformations of sulphur establish the sulphur cycle in nature?

Section – C

(10 marks each)

- Q7. What are the soil properties that affects crop growth and development?
- Q8. What is soil thermal regimes, importance and factors that affect soil temperature?
- Q9. How does soil aeration process affect plant growth? Which parameters are used to characterize soil aeration?