2025

(November-December)

BOTANY

Paper: BOT-C-101

Microbes, Algae, Fungi, Lichen & Plant Pathology

Time: 2 Hours   **Total Mark: 45**   **Pass Marks: 14**

(The figures in the right margin indicate full marks of the questions)

1. (a) Choose the correct answer: 1×3=3
   i. Bacteria are prokaryotic/eukaryotic/acellular/multicellular.
   ii. Phycoerythrin is found in Chlorophyceae/ Xanthophyceae/ Rhodophyceae/ Diatoms.
   iii. The aseptate mycelium is found in lower fungi/higher fungi/ fungi imperfecti/none of these.

   (b) Answer the followings as per direction: 1×3=3
   i. _____ is an example of RNA virus (Fill in the blanks).
   ii. Crustose lichen is grown on damp soil/bark of tree/rock surface (Choose the correct option).
   iii. _____ is characterized by the plasmodium and pseudoplasmodium (Fill in the blanks).

2. Write short notes on/ Answer any four of the following   3×4=12

   a. Differentiate between Gram-positive and Gram-negative bacteria.
   b. Nutrition in fungi
   c. Characteristics of Cyanophyceae algae
   d. Chemical methods of plant disease control

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e. Nature of association of Lichen

3. Write explanatory notes on: $4\frac{1}{2}+4\frac{1}{2}=9$
   a. Lysogenic life cycle of Bacteriophase
   b. Structure of a *Velvox* colony

Or

With suitable diagram, describe the structure and development of globule and nucule of *Chara* $2+7=9$

4. Describe the life history of *Puccinia* on wheat plant. Name the spores it produces in alternate host. $7+2=9$

Or

Write explanatory notes on the following $4\frac{1}{2}+4\frac{1}{2}=9$
   a. Cell wall composition of fungi.
   b. Parasexuality in fungi.

5. What do you mean by disease cycle? Discuss the various stages of the disease cycle in plants $2+7=9$

Or

Write the scientific name of the causal organism, symptoms and control measures of the following $(1+1+1)\times3=9$
   a. Red rot of sugarcane
   b. Citrus canker
   c. Grey Blight of Tea

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