PD-167-S.E.-CV-19

M.Sc. BOTANY (1st Semester), REGULAR

Examination, Dec.-2020

BIOLOGY & DIVERSITY OF VIRUS, BACTERIA & FUNGI-II

Time : Three Hours] **[Maximum Marks : 80**

[Minimum Pass Marks : 29

Note : Answer from both the Sections as directed. The figures in the right-hand margin indicate marks.

Section-A

1. **Answer the following questions:-** **1x10=10**
   (a) Give any two examples of cyanobacteria having basal heterocyst.
   (b) What is the name of the subunit of protein coat in viruses?
   (c) Who gave the word mycoplasma?
   (d) Which fungi produced 'Ergot toxin'?
   (e) Name any two fungi causing powdery mildew disease.
   (f) Give the names of two diseases caused by virus in animals.
   (g) Which fungus is called 'Pin-mould'?
   (h) Clamp connection is formed in which group of fungi?
   (i) Write the same of bio antibiotic produced by fungi.
   (j) Fungus which live only on dead organic matter, known as.....

2. **Answer the following questions in brief:-** **2x5=10**
   (a) Describe the structure of heterocysts and their working.
   (b) What is Mycorrhizae?
   (c) Draw well labelled diagram of TMV.
   (d) What is the basis of classification of deuteromycotina?
   (e) Write two living and two non living nature of viruses.

Section-B

15x4=60

Answer the following long-answer type questions with suitable diagrams.

3. **Describe the methods of conjugation and transformation in bacteria with diagram.**

   OR

   Describe the methods of reproduction in cyanobacteria.

4. **Write an elaborate account on 'Viruses'.**

   OR

   Write precisely on 'Mycoplasma'.

5. **Describe the mode of reproduction in Fungi.**

   OR

   Write notes on the following:-
   (a) Heterothallism
   (b) Parasexuality

6. **Describe the role of fungi in industries and medicine.**

   OR

   Write notes on the following:-
   (a) Difference between Rust and Smut.
   (b) External and internal structure of fruiting bodies met in Ascomycotina. (only well labelled diagrams with examples).