

**PDO-167-S.E.-CV-19**

**M.Sc. BOTANY (1<sup>st</sup> Semester), ATKT**

**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 name 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).