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S. No. of Question Paper : 8331

Unique Paper Code : LSPT-304 : 216351

C

Name of the Paper : Biodiversity-I Microbes

Name of the Course : B.Sc. Life Science

Semester : III

Duration : 3 Hours

Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt Five questions in all.

Question No. 1 is compulsory.

All questions carry equal marks.

1. (A) Fill in the blanks :

10×1=10

- (i) ..... and ..... are the main pigments present in Cynophyaeen algae.
- (ii) Phaneroplasmodium is formed in .....
- (iii) ..... is commonly known as Reindeer moss.
- (iv) ..... is a resting spore which is formed by the fusion of true gametangia.
- (v) The smallest bacteria is ..... It is 0.2  $\mu$ m in size.

P.T.O.

- (vi) TMV was first crystallized by ..... in 1935.
- (vii) ..... is a fungus used for flavouring cheese.
- (viii) When androsporangia are borne on oogonial filaments in *Oedogonium* it is known as .....
- (ix) Morphologically active form of bacteria in nodule is known as .....
- (x) The outside covering of cleistothecium is known as .....

(B) Match the following :

5×1=5

Palmella stage

*Polysiphonia*

Floridean starch

*Chlamydomonas*

*Agaricus*

Cephalodia

*Puccinia*

gills

Lichens

aecia

2. Write short notes on any *three* :

3×5=15

- (a) Bacteriophage
- (b) Discuss the *two* stages of infection on wheat leaf caused by *Puccinia*.
- (c) Nutrition in bacteria.
- (d) Sexual reproduction in *Oedogonium*
- (e) Ecological and economic importance of lichens.

3. Draw well labelled diagram of any *five* :

5×3=15

- (a) V.S. of Apothecium of lichens
- (b) V.S. of *Brassica* leaf showing the conidial stage of *Albugo*.
- (c) Development of endospore in bacteria
- (d) Bisexual conceptacle of *Fucus* (V.S.)
- (e) *Oedogonium* thallus showing dwarf male.
- (f) E.M. of Dolipore septum.

4. Differentiate between any *five* :

5×3=15

- (a) Aphanoplasmodium and Phaneroplasmodium
- (b) Conjugation and Transformation
- (c) Primary and Secondary mycelium.
- (d) Tetrasporophyte and Carposporophyte
- (e) Gram +ve and Gram -ve bacteria
- (f) Archaeobacteria and Eubacteria.

5. (a) Justify the statement 'viruses can be classified as living as well as non-living'. 5

(b) Name any *one* human fungal diseases studied by you in the class. Mention their name, causal organism, symptoms and control measures. 5

(c) Discuss the post-fertilization changes in *Polysiphonia*. 5

P.T.O.

6. (a) Discuss anisogamous and isogamous mode of reproduction in *Chlamydomonas*. 5

*Or*

Discuss *Physarum* as an experimental tool.

- (b) Discuss the symptoms, transmission and management of Vein clearing disease. 5
- (c) Discuss the symptoms, transmission and management of Crown gall disease. 5