Total page: 1

2018-19
1st Sem.

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PG (NEW) CBCS

M.Sc. Semester-I Examination, 2018

BOTANY

PAPER: BOT-101

(Microbiology)

Full Marks: 40 **Time: 2 Hours**

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1. Answer any four questions: **2×4=8**

i) Name the components of nitrogenase enzymes.
ii) What are the different types of T-cells?
iii) What are positive and negative strand of RNA virus?
iv) What is Salk vaccine?
v) How does the prokaryotic flagella differs from eukaryotic flagella?
vi) What are prions? Give example of a disease caused by it?
vii) What are agglutination reactions?
viii) Give example of two water borne disease along with their causal organism.

2. Answer any four questions: **4×4=16**

i) Discuss the structural organization of HIV and mention its importancy.
ii) Mention the procedure of food sterilization for preventing microbial contamination.
iii) Distinguish between the structure and function of flagella and pili.
iv) Discuss the process of direct ELISA. **4**
v)What is sexduction? Compare F^-, F^+, Hfr and F′.
vi) Write down the process of beer production.
vii) What do you mean Diauxic growth? How does batch culture differ from continuousculture? **2+2=4**
viii) Draw and discuss ultrastructure of Gram negative bacterial cell wall. **4**

3. Answer any two questions: **8×2=16**

i) Why moist heat is more effective than dry heat? State the different principles for formulation of media. Explain diauxic growth curve. **2+2+4=8**
ii) Describe briefly the different stages of endospore formation in Bacillus species. How does endospore formation is regulated? **6+2=8**
iii) Compare specialized and generalized transduction. Discuss interrupted mating experiment for gene mapping in bacteria. **3+5=8**
iv) What are late proteins? Mention regulation for lysogenic cycle. How animal viruses are cultivated in laboratory? **2+2+4=8**

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