

**S. Y. B. Sc. (Biotechnology) SEM – III (2010 COURSE) : WINTER -
2018**

SUBJECT: MICROBIOLOGY – II

Day: Wednesday
Date: 24/10/2018

W-2018-1191

Time: 02.00 PM TO 05.00 PM
Max Marks. 80

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

SECTION - I

- Q.1** A) Answer **ANY ONE** of the following (06)
- i) Discuss lysogenic cycle in bacteriophages.
 - ii) Explain generalized transduction in brief.
- B) Answer **ANY TWO** of the following (10)
- i) What are plasmids? Explain various types of plasmids.
 - ii) How viruses are cultivated using cell culture method?
 - iii) Discuss Bernard Davis U tube experiment that proves cell to cell contact is essential for conjugation.
- Q.2** Write short notes on **ANY FOUR** (16)
- i) $F^+ \times F^-$ mating
 - ii) Helical capsid
 - iii) Detection of viral growth in cell culture
 - iv) One step growth experiment
 - v) General features of virus.

SECTION - II

- Q.3** A) Answer **ANY ONE** of the following (06)
- i) Discuss the pathogenesis of typhoid fever.
 - ii) What are lichens? Give its applications.
- B) Answer **ANY TWO** of the following (10)
- i) What are extremophiles? Give its applications.
 - ii) What are the various stages of AIDS?
 - iii) Give significance of probiotics in human health.
- Q.4** Write short notes on **ANY FOUR** (16)
- i) Draw the structure of influenza virus.
 - ii) What are thermophiles? Give its significance.
 - iii) Discuss interaction of plant microbes with reference to root nodules.
 - iv) Define the terms:
 - i) Opportunistic pathogen
 - ii) Virulence
 - iii) Invasiveness
 - iv) Infectivity
 - v) What is host parasite relationship?
- Q.5** Write short notes on **ANY FOUR** (16)
- i) HBsAg
 - ii) Pneumonia
 - iii) PCR polymerases
 - iv) Rumen
 - v) Preventive measures for typhoid