

NS - 321



I Semester B.Sc. Examination, Nov./Dec. 2016
(CBCS) (2014-15 and Onwards) (F+R)
BOTANY (Paper - I)

Introduction to Microbiology, Viruses, Bacteria, Cyanobacteria and
Phycology

Time : 3 Hours

Max. Marks : 70

- Instructions :** 1) Answer all questions.
2) Draw diagrams and write examples wherever necessary.

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PART - A

A. Define/explain any ten of the following in two or three sentences : (10×2=20)

- 1) Mention the postulates of Robert Koch.
- 2) Define hybridoma technology.
- 3) What are cap cells ?
- 4) Name the sex organs of chara.
- 5) What are the predominant pigments of cyanobacteria ?
- 6) Draw a neat labelled diagram of chlamydomonas cell.
- 7) What are heterocysts and mention its significance ?
- 8) Name any two antibiotics derived from bacteria.
- 9) What are antigens ?
- 10) Give the importance of Ti plasmid.
- 11) Mention the significances of Environmental microbiology.
- 12) Define conjugation.

PART - B

B. Write critical notes on any four of the following :

(4×5=20)

- 13) Biopesticides.
- 14) Waternet.
- 15) Yellow mosaic of beans.
- 16) Endospore.
- 17) Sexual reproduction in algae.
- 18) Branching in scytonema.

P.T.O.



PART - C

C. Give a comprehensive account of **any three** of the following :

(3x10=30)

- 19) Macrandrous type of reproduction in oedogonium.
- 20) Give an account of serial dilution techniques for isolation of bacteria.
- 21) Explain cystocarp and add a note on tetrasporophyte in polysiphonia.
- 22) Give the economic importance of cyanobacteria.
- 23) Write the general characters of Mycoplasmas and explain the disease it causes.

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