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**MBS 408** 

## I Semester M.Sc. Degree Examination, December 2018 MICROBIOLOGY (CBCS) Microbial Methods and Techniques

Time: 3 Hours Max. Marks: 70

I. Answer any three of the following:

 $(3\times10=30)$ 

- 1) Write a detailed account on Bergey's manual of systematic bacteriology.
- 2) Describe principle and applications of gas chromatography.
- 3) Write a detailed account on culture media.
- 4) Describe the principle and types of centrifugation.
- 5) Discuss the principles and applications of electron microscopy.
- II. Answer any five of the following:

 $(5 \times 5 = 25)$ 

- 6) Phase contrast microscope.
- 7) SPC.
- 8) Diversity of microorganisms based on carbon requirements.
- 9) TLC.
- 10) X ray crystallography.
- 11) 2 D PAGE.
- 12) Colony characters of bacteria.
- 13) Magnification power.

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III. Answer any five of the following:

 $(5 \times 3 = 15)$ 

- 14) Dark field microscopy.
- 15) Anaerobic respiration.
- 16) Haemocytometer.
- 17) Principle and applications of HPLC.
- 18) Western blotting technique.
- 19) Bacterial smear preparation.
- 20) IEF.
- 21) Negative stains.