

M.Sc. (Ag.) Plant Protection Examination 2015

Semester -II

Course : PPC - 503

(Plant Bacteriology)

Time : Three Hours

Full Marks : 50

Questions are of value as indicated in the margin.

Answer **any five** questions

1. Define bacteria. Distinguish general growth and diauxic growth pattern of bacteria. Briefly describe the measurement of bacterial growth. Write in brief about any four factors affecting growth of bacteria. 1+2+3+4=10
 2. Give a detailed account on bacterial cell structure and organelles with a clear drawing and also enumerate their functions. 10
 3. What are the modes of recombination found in bacteria? Illustrate any two of them with diagram. 2+8=10
 4. Describe the different mode of entry, survival and dissemination of bacterial plant pathogens with suitable examples. 4+3+3=10
 5. Differentiate mycoplasma and phytoplasma. Write briefly about the phytoplasma and spiroplasma. Name four different plant diseases caused by phytoplasma. 3+5+2=10
 6. Define vector. Enumerate the association between insect vector and phytopathogenic bacteria in relation to survival and dispersal of the bacteria. 2+8=10
 7. Write short notes on **any two** of the following : 5×2=10
 - (i) Race and Biovar
 - (ii) Hypersensitivity and Pyrotaxonomy
 - (iii) Flagellation in bacteria
 - (iv) Immunology and its importance
 8. Write short notes on **any four** of the following : 2.5×4=10
 - (i) Antigen and antibody
 - (ii) Structure of bacteriophages
 - (iii) Endospore
 - (iv) Bacterial ribosome
 - (v) Bdellovibrio
 - (vi) Bergey's manual of determinative bacteriology
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