

Total No. of Questions : 5]

SEAT No. :

[Total No. of Pages : 2

P385

[5115]-17

F.Y. B.Sc.

MICROBIOLOGY

Introduction to Microbiology

(New Course - 2013 Pattern) (Paper - I)

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Draw neat labelled diagrams wherever necessary.*
- 3) *Figures to the right indicate full marks.*

Q1) Attempt the following:

[16]

- a) Match the following:
 - i) Louis Pasteur
 - ii) Joseph Lister
 - 1) Animal cules
 - 2) Pasteurization
 - 3) Surgical Antisepsis
- b) Name two Gram negative bacteria.
- c) Define-Base. Give two examples.
- d) Write two functions of pili in bacteria.
- e) Name any two aminoacids in proteins.
- f) State true or false:
 - i) Glucose is a diasaccharide.
 - ii) Phosphodiester bonds are present in carbohydrates.
- g) Fill in the blanks:
 - i) _____ is a normal flora of human body
 - 1) Rhizobium
 - 2) E.coli
 - 3) Pseudomonas
 - 4) None of the above
 - ii) _____ was the first to introduce the process of immunization.
 - 1) Robert Hook
 - 2) Fransisco Redi
 - 3) Edward Jenner
 - 4) None of the above
- h) Name any two human diseases caused by viruses.

P.T.O.

Q2) Write Short Notes on Any Four of the following: [16]

- a) Germ theory of disease.
- b) Plasmids.
- c) Covalent bonds.
- d) Food & Dairy Microbiology.
- e) pH & Buffers.
- f) Chemotherapy.

Q3) Attempt Any Four of the following: [16]

- a) What is abiogenesis? Explain spontaneous generation theory.
- b) What are cell inclusions? Explain metachromatic granules.
- c) Write functions of polysaccharides.
- d) Explain the structure of triglycerides.
- e) Write about discovery of microscope.
- f) Write general characters of fungi.

Q4) Attempt Any Two of the following: [16]

- a) Explain the contribution of Louis Pasteur in Microbiology.
- b) Give the morphological characters of algae & add a note on their economic importance.
- c) What are bio-inoculants? Discuss the role of various microorganisms in agriculture.
- d) With a neat labelled diagram, explain Redi's three jar experiment.

Q5) Attempt Any One of the following: [16]

- a) With a neat labelled diagram explain composition, structure and functions of bacterial flagella.
- b) What are nucleic acids? Explain in detail structure, types of functions of RNA.

