X

Seat No. : _____

JD-117

January-2016

B.Sc., Sem.- I

CC-3 – Paper-101 : Microbiology
(Introduction to Microbial World)

Time : 3 Hours] **[Max. Marks : 70**

Instructions : (1) All questions carry equal marks.
(2) All questions all compulsory.
(3) Figures on right indicates marks.
(4) Draw neat and clean diagrams wherever necessary.

1. Answer the following : (any two) 14

(a) Explain developments in laboratory and pure culture techniques.

(b) Explain germ theory of disease.

(c) Describe contribution of Louis Pasteur in development of vaccines.

(d) Explain developments in modern chemotherapy.

2. Answer the following : (any two) 14

(a) Discuss distribution of micro organisms in nature.

(b) Explain habitation of microbes.

(c) Discuss distinctive features of bacteria.

(d) Write a note on importance of Fungi.

3. Answer the following : (any two) 14

(a) Discuss areas of study in the field of microbiology.

(b) Discuss role of microbes in the ecosystem.

(c) Explain applications of micro organisms in biotechnology.

(d) Explain streak plate or pour plate methods for isolation of pure culture.

P.T.

4. Answer the following : (any two)

(a) Explain Fluorescence microscopy and its importance.

(b) Write differences between light microscopy and electron microscopy.

(c) Discuss microbiological uses of dyes and stains.

(d) Explain gram staining with importance of each step.

5. Answer in one word / one or two lines :

(1) Who suggested the use of agar agar powder as a solidifying agent ?

(2) Who invented simple microscope ?

(3) Write contribution of Winogradsky in the field of microbiology.

(4) What do you mean by "Thermophile" ?

(5) What are prions ?

(6) Name various groups of microorganisms.

(7) Name any two culture collection centres.

(8) What do you mean by "Phycology" ?

(9) Mention one word for "disease causing micro organism".

(10) What is the use of Lyophilisation ?

(11) Name one acidic dye and one alkaline dye.

(12) Write full form of SEM and TEM.

(13) Complete the equation for resolution : d =

(14) Mention magnification power of : low power, high power and oil immersion objectives.