R-19

Code:1309/BL

Faculty of Science

B. Sc (Microbiology) I-Year, CBCS –I Semester Backlog Examinations, January 2021

PAPER: INTRODUCTION TO MICROBIOLOGY

Time: 2 Hours Max Marks: 80

I. Answer any **FOUR** of the following questions (4x20=80 Marks)

1. Define sterilization? Give a detailed description of chemical sterilization methods.
2. Write an assay on history of Microbiology.
3. Give an account various types of staining methods of microorganisms.
4. Write an essay on Microscope principles and Electron Microscopy.
5. Mention a detailed note on Carl Woese system of classification of organisms.
6. Describe in detail about the methods used for preservation of pure cultures.
7. Discuss in detail about the general characters of Protozoa.
8. Write an elaborated essay on ultra-structure of Bacteria with suitable diagram.

*****

R-19

Code:1309/19/BL

Faculty of Sciences

B. Sc (Microbiology) I-Year, CBCS –I Semester Backlog Examinations –June, 2023

PAPER: Introduction to Microbiology

Time: 3 Hours Max Marks: 80

Section-A

I. Answer any *eight* of the following questions (8x4=32 Marks)

1. Winogradsky Column
2. Dry heat sterilization
3. Ionic radiations
4. TEM
5. Micrometry
6. Flagella staining
7. Three Domain system of classification
8. Enrichment culturing
9. Lyophilization
10. Actinomycetes
11. Endospores
12. TMV

Section-B

II. Answer the following questions (4x12=48 Marks)

13.(a) Write on important contributions of Robert Koch and Edward Jenner for the development of Microbiology

(OR)

(b) Discuss in brief, various chemical methods of sterilization

14.(a) Explain the Principle and various applications of Phase Contrast Microscopy

(OR)

(b) Write on the Principle and applications of Scanning Electron Microscope

15.(a) Differentiate Prokaryotes and Eukaryotes with neat labeled diagrams.

(OR)

(b) Explain various methods of obtaining a pure culture

16.(a) Describe general characteristics of Archaea bacteria

(OR)

(b) Write a note on Lytic and Lysogenic cycle of Lambda phage

*****

R-20

Code:1309/20/BL

Faculty of Science

B. Sc (Microbiology) I-Year, CBCS –I Semester Backlog Examinations -June, 2023

PAPER: General Microbiology

Time: 3 Hours Max Marks: 80

Section-A

I. Answer any *eight* of the following questions (8x4=32 Marks)

1. Louis Pasteur
2. Phase contrast microscope
3. Hanging drop method
4. TMV
5. Lyophilization
6. Multiplication of lambda phage
7. Oxidative phosphorylation
8. ED pathway
9. Microbial nutrition
10. Synchronous growth
11. Phenols
12. Disinfection techniques

Section-B

II. Answer the following questions (4x12=48 Marks)

13.(a) Outline the working principle and instrumentation of compound microscope.

(OR)

(b) What is staining? Write about different types of staining.

14.(a) Outline the structure of eubacteria with a labelled diagram.

(OR)

(b) Define pure culture. Write about the methods used for isolation of pure cultures

15.(a) Outline various nutritional groups of microorganisms with suitable examples.

(OR)

(b) Discuss the biochemical reactions of TCA cycle.

16.(a) Explain the physical methods of sterilization.

(OR)

(b) Write about the methods to measure the microbial growth.

*****