

CREDIT BASED FIRST SEMESTER B.Sc. DEGREE EXAMINATION - OCTOBER 2012**MICROBIOLOGY****GENERAL MICROBIOLOGY****Duration: 3 Hours****Max Marks: 80****Note: Draw diagrams wherever necessary.****PART A****I. Answer any TEN of the following: 2x10=20**

- a) Resolving Power
- b) Mordant
- c) Acid Fast Bacteria
- d) Hargobind khorana
- e) TEM
- f) Decolourizer
- g) Beijerinck
- h) Dairy Microbiology
- i) Incineration
- j) Antimicrobial Agent
- k) Iwanowsky
- l) Dyes

PART-B**UNIT-I****Answer any TWO complete questions of the following: 10x2=20**

- II. a) Discuss the contributions of Robert Koch to the development of Microbiology. 06
b) Discuss briefly on the branches of Microbiology. 04
- III. a) Discuss the contributions of Alexander Flemming and Waksman to the development of Microbiology. 06
b) Write a brief note on significance of Microbiology as a modern science. 04
- IV. a) Write a note on Pasteurization. 06
b) Write a note on Spallanzani. 04

UNIT-II**Answer any TWO complete questions of the following: 10x2=20**

- V. a) Discuss the principle and construction of Dark Field Microscope. 06
b) Write a note on Negative Staining. 04
- VI. a) Write the principle and procedure for Gram Staining. 06
b) Write a brief note on student microscope. 04
- VII. a) Explain the principle and procedure for Endospore Staining. 06
b) Write a note on Scanning Electron Microscope. 04

UNIT-III**Answer any TWO complete questions of the following: 10x2=20**

- VIII. a) Discuss dry heat as a physical agent for sterilization. 06
b) Write a note on metallic salts as sterilizing agents. 04
- IX. a) Discuss phenols and aldehydes as chemical sterilants. 06
b) Write a note on non-ionising radiation as physical sterilants. 04
- X. a) Discuss alcohols and quarternary ammonium compounds as antimicrobial agents. 06
b) Discuss the characteristics of an ideal antimicrobial agent. 04

MIC 101

Reg. No.

CREDIT BASED FIRST SEMESTER B.Sc. DEGREE EXAMINATION - OCTOBER 2013

MICROBIOLOGY

GENERAL MICROBIOLOGY

Duration: 3 Hours

Max Marks: 80

Note: Draw diagrams wherever necessary.

PART A

I. Answer any TEN of the following: 2x10=20

- m) Iwanowsky
- n) Mordant
- o) Basic Stain
- p) Formaldehyde
- q) Waksman
- r) Biogenesis
- s) Magnification
- t) Electron Microscope
- u) Agricultural Microbiology
- v) Incineration
- w) Numerical Aperture
- x) Indirect Staining

PART-B

UNIT-I

Answer any **TWO** complete questions of the following: 10x2=20

- II. a) Discuss the contributions of Louis Pasteur to the development of Microbiology. 06
- b) Write a note on Koch's Postulates. 04
- III. a) Discuss the scope and significance of Microbiology as a modern science. 06
- c) Write a note on Felix De'Herell. 04
- IV. a) Explain the contributions of Alexander Flemming to the Development of Microbiology. 06
- b) Write a note on Joseph Lister. 04

UNIT-II

Answer any **TWO** complete questions of the following: 10x2=20

- V. a) Write a brief note on Negative Staining. 06
- b) Write a note on Transmission Electron Microscope. 04
- VI. a) Discuss the principle and construction of Phase Contrast Microscope. 06
- b) Write the principle of Gram Staining. 04
- VII. a) Write a brief note of Flagellar Staining. 06
- c) Write briefly on Student Microscope. 04

UNIT-III

Answer any **TWO** complete questions of the following: 10x2=20

- VIII. a) Discuss moist heat as a physical agent for Sterilization. 06
- c) Write a note on Halogens as Antimicrobial Agents. 04
- IX. a) Discuss dyes and metallic salts as chemical sterilants. 06
- b) Discuss the characteristics of an ideal antimicrobial agent. 04
- X. a) Discuss radiation as physical method of sterilization. 06

- b) Write a note on surface active agents.

04

MIC 101.1

Reg. No.

CREDIT BASED FIRST SEMESTER B.Sc. DEGREE EXAMINATION - OCTOBER 2014

MICROBIOLOGY

GENERAL MICROBIOLOGY

Duration: 3 Hours

Max Marks: 80

Note: Draw diagrams wherever necessary.

PART A

I. Answer any TEN of the following: 2x10=20

- y) Louis Pasteur
- z) Surface Active Agents
- aa) Broth
- bb) Waksman
- cc) Enrichment Media
- dd) Numerical Aperture
- ee) Species
- ff) Basic Stain
- gg) Pour Plate Method
- hh) Scanning Electron Microscope
- ii) Abiogenesis
- jj) Synthetic Media

PART-B

UNIT-I

Answer any TWO complete questions of the following: 10x2=20

- II. a) Discuss the contributions of Joseph Lister and Lazzaro Spallanzani. 06
- b) Write a note on Principles of Binomial Nomenclature. 04
- III. a) Discuss the different branches of Microbiology. 06
- d) Write briefly on intuitive method for classification. 04
- IV. a) Discuss the contributions of Alexander Fleming to the development of Microbiology. 06
- b) Write a note on Ivanovsky and Beijerinck. 04

UNIT-II

Answer any TWO complete questions of the following: 10x2=20

- V. a) Discuss the principle and construction of Transmission Election Microscope. 06
- b) Write a brief note on Acid-Fast Staining. 04
- VI. a) Discuss sterilization by Dry Heat method. 06
- b) Write a note on compound microscope. 04
- VII. a) Explain the principle and procedure for Gram Staining. 06
- d) Discuss Phenols and Halogens as Sterilizing Agents. 04

UNIT-III

Answer any TWO complete questions of the following: 10x2=20

- VIII. a) Explain streak plate method and spread plate method for the isolation of Microorganisms. 06
- d) Write a note on Selective and Indicator Media. 04
- IX. a) Discuss the methods for preservation of pure culture. 06

- b) Write a note on Differential Media and Transport Media. 04
- X. a) Discuss the cultivation of Anaerobic organisms. 06
- b) Classify media based on consistency. 04

MIC 101.1

Reg. No.

CREDIT BASED FIRST SEMESTER B.Sc. DEGREE EXAMINATION - OCTOBER 2015

MICROBIOLOGY
GENERAL MICROBIOLOGY

Duration: 3 Hours

Max Marks: 80

Note: Draw diagrams wherever necessary.

PART A

I. Answer any TEN of the following: 2x10=20

- kk) Dairy Microbiology
- ll) Non-Ionizing Radiation
- mm) Gram's Iodine
- nn) Bergey's Manual
- oo) Pure Culture
- pp) Acid Fast Bacilli
- qq) Lazzaro Spallanzani
- rr) Indicator Media
- ss) Binomial Nomenclature
- tt) Stab Culture
- uu) Resolving Power
- vv) Transport Media

PART-B

UNIT-I

Answer any TWO complete questions of the following: 10x2=20

- II. a) Discuss the contributions of Louis Pasteur to the development of Microbiology. 06
- b) Write a note on Numerical Taxonomy. 04
- III. a) Discuss the contributions of Joseph Lister and Edward Jenner in the field of Microbiology. 06
- e) Write a brief note on Whittaker's Five-Kingdom concept. 04
- IV. a) Explain the scope and significance of Microbiology as a modern science. 06
- b) Write a note on Koch's Postulates. 04

UNIT-II

Answer any TWO complete questions of the following: 10x2=20

- V. a) Discuss the principle and construction of Scanning Electron Microscope. 06
- b) Write a brief note on Negative Staining. 04
- VI. a) Discuss the construction of a compound microscope with a neat labeled diagram. 06
- b) Explain sterilization by Filtration. 04
- VII. a) Explain the principle and procedure for Gram Staining. 06
- e) Write a note on Alcohols and Phenols as chemical sterilants. 04

UNIT-III

Answer any TWO complete questions of the following: 10x2=20

- VIII. a) Explain pour plate and spread plate method for the isolation of Microorganisms. 06
e) Write a note on enriched and enrichment media. 04
- IX. a) Discuss any two methods of cultivation of anaerobic microorganisms. 06
b) Write a note on Lyophilization and Liquid Nitrogen. 04
- X. a) Explain serial dilution and streak plate method for isolation of microorganisms. 06
b) Classify media based on their consistency. 04

MIC 101.1

Reg. No.

CREDIT BASED FIRST SEMESTER B.Sc. DEGREE EXAMINATION OCTOBER 2016

MICROBIOLOGY
GENERAL MICROBIOLOGY - I

Duration: 3 Hours

Max Marks: 80

Note: Draw diagrams wherever necessary.

PART A

I. Answer any TEN of the following:

2x10=20

- a) Broth Culture
- b) Magnification Power
- c) Joseph Lister
- d) Species
- e) Pure Culture
- f) Incineration
- g) Counter Stain
- h) Industrial Microbiology
- i) Formaldehyde
- j) Nutrient Agar
- k) Numerical Taxonomy
- l) Enrichment Media

PART-B

Answer any TWO complete questions from each unit

UNIT-I

- II. a) Discuss the contributions of Lazzaro Spallanzani and H.Khorana to the field of Microbiology. 06
- b) Write a note on Intuitive method of classification. 04
- III. a) Explain the contribution of Alexnder Flemming. 06
- b) Write a note on Binomial Nomenclature. 04
- IV. a) Explain Whittaker's five kingdom concept. 06
- b) Write a note on scope of Microbiology. 04

UNIT-II

- V. a) Briefly explain on Phenols and Aldehydes. 06
b) Write a note on dark field microscopy. 04
- VI. a) Explain the Flagellar staining techniques. 06
b) Write a note on the characteristics of an ideal antimicrobial agent. 04
- VII. a) Explain radiation as a method of sterilization. 06
b) Write a note on SEM. 04

UNIT-III

- VIII. a) Explain the various specialized media used for cultivating Microbes. 06
b) Write a note on Lyophilization. 04
- IX. a) Explain the streak plate and spread plate methods of Microbial Isolation. 06
b) Write a note on Anaerobic Jar. 04
- X. a) Explain the serial dilution technique and pour plate method. 06
b) Write a note on use of liquid nitrogen and Gelatin for preservation. 04
