Total No. of Questions :5]
P679

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[5017] - 117 F.Y.B.Sc.

MICROBIOLOGY

# Introduction to Microbiology (2013Pattern) (Paper - I)

Time : 3 Hours | Instructions to the candidates: [Max. Marks:80

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

Q1) Attempt the following.

[16]

- a) What are buffers? Give two examples.
- b) Name any two diseases caused by Bacteria.
- c) Define Nucleotides.
- d) Name any two endospore producing bacteria.
- e) Give any two ways in which Normal flora is useful to the host.
- f) Match the following
  - i) Beadle & Tatum

a) Plant viruses

ii) Edwadrd Jenner

- b) Genes and mutation
- c) Vaccination

g) Fill in the Blanks-

The organs of motility in <u>Paramoecium</u> are \_\_\_\_\_ and in Entamoeba are \_\_\_\_\_

- h) State True or False-
  - Glycogen bodies are stores of carbohydrates.
  - Gram negative cell wall contains high percentage of peptidoglycan as compared to Gram positive cell wall.

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Nester

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(Cambridge, England), Arthur Geoffrey Callely, 1975-01-01 Microbiology, Study Guide Paul A. Ketchum, 1988-08-01 This comprehensive introduction to microbiology with many applications to everyday life is enriched by short essays and reports from the Centers for Disease Control It offers more extensive coverage of molecular biology than most texts enabling students to better understand microbiological principles and applications Provides pronunciation of scientific terms and key point appear throughout the text to focus attention on important concepts Coverage includes macromolecules DNA synthesis protein synthesis regulation and microbial genetics Chapter outlines begin each chapter so the reader can see at a glance the organization of the material Summary outlines at the end of each chapter aid review Contains questions and topics for Study Guide for Microbiology, an Introduction Berdell R. Funke, 1992 **Textbook of Microbiology** Dr. discussion A.K Kushwaha, 2020-07-26 Microbiology is the study of microscopic organisms such as bacteria viruses archaea fungi and protozoa This discipline includes fundamental research on the biochemistry physiology cell biology ecology evolution and clinical aspects of microorganisms including the host response to these agents CONTENTS MICROBIOLOGY AND THEIR HISTORY 1 MICROSCOPY 9 Staining Techniques Introduction to Microscopes Types of Microscopes Limitations DISTRIBUTION OF MICROORGANISMS 20 Microorganisms in soil Microorganisms in water Microbes of the air Associated with man In association with insects CLASSIFICATION AND DENTIFICATION METHODS OF MICROORGANISMS 26 Classification of Prokaryotes Evolution of Prokaryotes Categories of microorganisms in ecology THE METHODS IN MICROBIOLOGY 36 PROKARYOTIC CELLS AND EUKARYOTIC CELLS 40 NUCLEIC ACIDS 46 THE BACTERIA 76 General Characteristics Bacteria Morphology Reproduction in Bacteria BACTERIAL GENETICS 96 Genetic organization Mutations Plasmids Types of Transposable Genetic Elements NUTRITION AND GROWTH OF BACTERIA 106 Nutritional Requirements of Cells Growth Factors The Effect of Oxygen The Effect of pH on Growth The Effect of Temperature on Growth Water Availability Methods in bacteriology Culture Medium Sterilisation vs disinfection Staining of bacteria CULTIVATION OF BACTERIA IN CULTURE MEDIA 128 ACTINOMYCETES 145 Classification Importance of actinomycetes Actinomycosis PSEUDOMONAS AND VIBRIO XANTHOMONAS 152 Classification history Diseases Treatment ENTEROBACTERIACEAE 165 Salmonella Escherichia Shigella Klebsiella RICKETTSIA 176 Cell Structure and Metabolism Genome Structure Pathology Treatment ARCHAEBACTERIA 181 Origin and evolution Types of Archaebacteria Lokiarcheota Methanobrevibacter smithii MYCOPLASMAS 190 Structure of Mycoplasmas Reproduction in Mycoplasma Transmission of Mycoplasma Diseases Caused by Mycoplasma THE CHLAMYDIA 197 Chlamydial Infection Treatment VIRUSES 204 Virus history Viral Morphology Replication of viruses BACTERIOPHAGES 214 21 TOBACCO MOSAIC VIRUS TMV 220 22 POTATO VIRUS 226 Potato virus Y Potato virus X PVX Wild potato mosaic virus WPMV 23 MYCOVIRUSES 232 Kuru virus Measles rubeola virus Oncogenic or cancercausing viruses Viroids 24 CYANOPHAGES 238 25 TYPES OF VIRAL INFECTIONS 241 Respiratory Viral Infections Viral Skin Infections Foodborne Viral Infections Sexually Transmitted Viral Infections Other Viral Infections Antiviral

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