

**S.V.K.P & Dr K.S.RAJU ARTS & SCIENCE COLLEGE (A), PENUGONDA**  
**I Semester (w.e.f. 2020-21 Admitted Batch)**

**MICROBIOLOGY**

MICROBIOLOGY	CODE: 20MB1	2020-21	B.Sc.
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Semester – I

MICROBIOLOGY

Time: 3 Hours

Paper – 1

MODEL QUESTION PAPER

Max. Marks: 75

(INTRODUCTION TO MICROBIOLOGY AND MICROBIAL DIVERSITY)

**Part-I**

**Answer any five questions choosing at least two from each section.**

**Each question carries 10 marks.**

**5x10=50 marks**

1. Write about history of microbiology and its applications in various fields?
2. Explain the five kingdom concept of R.H whittaker's?
3. Write the general characteristics of bacteria?
4. Write the general characteristics of cyanobacteria?
5. Give an account on general characteristics of fungi?

**SECTION -B**

6. Give an account on classification of protozoa?
7. Explain the pure culture techniques?
8. Define Growth media ? what are the types of media?
9. Explain Electron microscopy and its types?
10. What are the physical methods of sterilization?

**Part – 2**


**Answer any five questions.**

**Each question carries 5 marks.**


**5x5=25 marks**

11. Anton von leeuwenhock
12. Algae reproduction
13. Mycoplasma
14. TMV
15. Lyophilization
16. Gram staining
17. Subculturing
18. Protozoa locomotion

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**HOD OF MICROBIOLOGY**  
**S.V.K.P & Dr K.S RAJU A & Sc. COLLEGE**  
**PENUGONDA, W.G.Dl.**



  
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**S.V.K.P & Dr K.S. RAJU ARTS & SCIENCE COLLEGE (A)**  
**PENUGONDA-534320, W.G.Dl.A.P**

**S.V.K.P & Dr K.S.RAJU ARTS & SCIENCE COLLEGE(A), PENUGONDA**

**II Semester (w.e.f. 2020-21 Admitted Batch)**

MICROBIOLOGY	CODE: 20MB2	2020-21	B.Sc.
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Semester – II

Paper – II

MICROBIOLOGY

MODEL QUESTION PAPER

(MICROBIAL PHYSIOLOGY AND BIOCHEMISTRY)

Time: 3 Hours

Max. Marks: 75

**Part – I**

**Answer any five questions choosing at least two from each section. Each question carries 10 marks.**

**5x10=50 marks**

**Section-A**

1. What are Carbohydrates? Write about the Classification of Carbohydrates
2. Write about classification of Lipids
3. Describe about the classification of Enzymes
4. Write about factors effecting Enzyme activity
5. Describe about Principles and applications of UV-VIS Spectrophotometry

**Section-B**


6. Write about SDS PAGE & its Applications
7. Describe about Nutritional classification of Micro organisms
8. Write about factors influencing Microbial growth
9. Write about TCA cycle
10. What is Fermentation? Write about Ethanol Fermentation

**Part – 2**


**Answer any five questions. Each question carries 5 marks.**

**5x5=25 marks**

11. Amino acids
12. B-DNA
13. Lock & key model
14. Competitive inhibition
15. Chromatography
16. Batch cultures
17. Measurement of Microbial growth
18. Electron transport chain

  
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**S.V.K.P. & Dr. K.S. RAJU ARTS & SCIENCE COLLEGE**  
(Autonomous)

Recognized by UGC as "College with Potential for Excellence"

Accredited by NAAC with "A" Grade

(Affiliated to ADIKAVI NANNAYA UNIVERSITY - Recognised by Govt. of Andhra Pradesh)

PENUGONDA-534 320, West Godavari District., (A.P.)

MICROBIOLOGY	CODE: 19MB3	2020-21	B.Sc.
Semester – III	MICROBIOLOGY		Time: 3 Hours

Paper – 3

MODEL QUESTION PAPER

Max. Marks: 75

(MICROBIAL GENETICS AND MOLECULAR BIOLOGY)

**Part – 1**

Answer any five questions choosing at least two from each section. Each question carries 10 marks.  
5x10=50 marks

**Section-A**

1. Describe the experiment of Hershey and Chase and Griffith to prove that DNA is a genetic material ?
2. Explain the Semi conservative mechanism of DNA and write the Enzyme involved in Replication ?
3. Write the mechanism of Transcription in Prokaryotes ?
4. What are the types of RNA & their functions ?
5. Write about protein Synthesis ?

**Section-B**

6. Explain Genetic code & its properties ?
7. What are the types of Mutations causing DNA ?
8. Explain DNA damage & its repair mechanism ?
9. What are the gene cloning methods and explain the mechanism ?
10. Give the general account on application of genetic engineering in industry, agriculture & medicine ?


**Part – 2**

**Answer any five questions. Each question carries 5 marks.**


**5x5=25 marks**

11. Plasmids
12. RNA Polymerase
13. Lac-operon
14. Transformation
15. Polymerase chain reaction
16. Structural genes
17. promoter sequences
18. Inhibitors of protein synthesis

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MICROBIOLOGY	CODE:19MB4	2020-21	B.Sc.
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Semester – IV

MICROBIOLOGY

Time: 3 Hours

(IMMUNOLOGY AND MEDICAL MICROBIOLOGY) (19MB4)

Paper – 4

MODEL QUESTION PAPER

Max. Marks: 75

**Part – 1**

**Answer any five questions choosing atleast two from each section.**

**5x10=50 marks**

**Each question carries 10 marks.**

**Section-A**

1. Explain the types of immunity ?
2. What are the secondary lymphoid organs. Explain them ?
3. What is the concept of hyper sensitivity ?
4. What are the properties and functions of immunoglobulins ?
5. Explain the Normal flora of human body ?

**Section-B**

6. Explain the general methods of laboratory diagnosis ?
7. How streptomycin acts as an Anti bacterial agent ? Explain it?
8. What are the tests for Antimicrobial susceptibility ?
9. Write about Tuberculosis disease ?
10. Explain malarial disease ?


**Part – 2**

**Answer any five questions. Each question carries 5 marks.**


**5x5=25 marks**

11. Neutrophils
12. Complement fixation
13. Nosocomial infection
14. Amphotericin
15. Monoclonal antibodies
16. Candidiasis
17. Vaccines
18. Pathogenecity

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