

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

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

BIOTECHNOLOGY	CODE: 20BT1	2020-21	B.Sc.
---------------	-------------	---------	-------

Semester – 1

Paper – 1

BIOTECHNOLOGY

MODEL QUESTION PAPER

(BIOMOLECULES & ANALYTICAL TECHNIQUES)

Time: 3 Hours

Max. Marks: 75

Part – 1

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

5×10=50 marks

Section-A

1. Write about Classification of Carbohydrates?
2. Describe about the structure of Proteins?
3. Write about the structure of B-DNA?
4. Explain about Glycolysis pathway?
5. Write about Paper Chromatography?

Section-B

6. Write about SDS- PAGE
7. Describe about Principle & Applications of UV-Visible Spectrophotometer?
8. What is Electron Microscope and explain about SEM ?
9. Explain about Mean & Median?
10. Write about ANOVA?

Part – 2

Answer any five questions. Each question carries 5 marks.

5×5=25 marks

11. Peptide bond
12. Phospholipids
13. Vitamin A & D
14. High energy compounds
15. Gel filtration chromatography
16. Types of Centrifuges
17. Radioisotopes
18. Chi-square Test


Head of the Department of Biotechnology
S.V.K.P. & Dr. K.S. Raju Arts & Science College
PENUGONDA - 534 320




PRINCIPAL
S.V.K.P. & Dr. K.S. Raju Arts & Science College (A)
PENUGONDA-534320, W.G.D.A.P

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

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

BIOTECHNOLOGY	CODE: 20BT2	2020-21	B.Sc.
---------------	-------------	---------	-------

Semester – II

Paper – II

BIOTECHNOLOGY

MODEL QUESTION PAPER

(Microbiology, Cell and Molecular Biology)

Time: 3 Hours

Max. Marks: 75

Part – 1

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

Section-A

1. Write about contributions of Louis Pasteur & Robert Koch
2. Describe about the Ultra structure of Bacterial cell
3. Explain about the Nutritional classification of Bacteria.
4. Write about Rabies & SARS- CoV-2 Viruses
5. Describe about Structure & Functions of different cell organelles of Eukaryotic Cell.

Section-B

6. Write about Mitotic cell division & its significance.
7. Describe about different enzymes and protein involved in DNA replication.
8. What is Operon? Explain about Lac Operon in Ecoli.
9. Describe about the characteristics of Genetic Code.
10. Explain about the mechanism of Translation in Prokaryotes.

Part – 2

Answer any five questions. Each question carries 5 marks. 5x5=25 marks

11. Sterilization
12. Acid fast staining
13. General characters of Algae
14. Typhoid
15. Cell signaling
16. DNA repair
17. Semi conservative Replication
18. RNA splicing


Head of the Department of Biotechnology
S.V.K.P. & Dr. K.S. Raju Arts & Science College
PENUGONDA - 534 320




PRINCIPAL
S.V.K.P. & Dr. K.S. RAJU ARTS & SCIENCE COLLEGE
PENUGONDA-534320, W.G.D.A.P

Phone : 08819 - 246126 / 246926

Website : www.svkpandksrajucollege.org.in



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.)

BIOTECHNOLOGY	CODE:19BT3	2020-21	B.Sc.
---------------	------------	---------	-------

Semester – III

BIOTECHNOLOGY

Time: 3 Hours

Paper – III

MODEL QUESTION PAPER

Max. Marks: 75

(BIOPHYSICAL TECHNIQUES)

Part – 1

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

5x10=50 Marks

Section-A

1. Write the principle and applications of Thin layer Chromatography?
2. Describe about the Affinity Chromatography?
3. Describe the principle, instrumentation & applications of Spectro photometer?
4. Write about Principle & Applications of Colorimeter?
5. What is SDS PAGE & Write its Principle and applications?

Section-B

6. Discuss the principle & applications of paper electrophoresis?
7. Describe the measurement of Radio activity by using Geigar-Muller Counter?
8. Write about applications of Radio Isotopes in Biology?
9. Describe about Analytical Ultra Centrifuge and its applications?
10. Explain about Standard deviation and its biological applications?

Part – 2

Answer any five questions. Each question carries 5 marks.

5 x 5=25 Marks

11. Paper Chromatography
12. Gelfiltration
13. Electromagnetic Radiation
14. Agarose gel electrophoresis
15. Iso electric focussing
16. Units of Radioactivity
17. Sedimentation coefficient
18. Density gradient centrifugation


Head of the Department of Biotechnology
S.V.K.P. & Dr. K.S. Raju Arts & Science College
PENUGONDA - 534 320




PRINCIPAL
S.V.K.P. & Dr. K.S. Raju Arts & Science College (A)
PENUGONDA-534320, W.G.D.A.P

Phone : 08819 - 246126 / 246926

Website : www.svkpandksrajucollege.org.in



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.)

BIOTECHNOLOGY	CODE:19BT4	2020-21	B.Sc.
---------------	------------	---------	-------

Semester – IV

BIOTECHNOLOGY
(IMMUNOLOGY) (19BT4)
MODEL QUESTION PAPER

Time: 3 Hours

Paper – IV

Max. Marks: 75

Part – 1

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

Section-A

1. Write about Organs of Immune system?
2. Describe about Acquired Immunity?
3. Define Antibody & Write about different classes of Antibody?
4. What is Complement? Write about its Complement system?
5. Describe Cell mediated immunity and its types?

Section-B

6. Describe about types of MHC
7. What is Hypersensitivity? Write different types of Hypersensitivity?
8. Describe about different types of Vaccine and its applications?
9. Write about Different Antigen and antibody reactions?
10. What are Monoclonal antibodies and write its applications

Part – 2

Answer any five questions. Each question carries 5 marks.

5 x 5=25 Marks

11. Humoral Immunity
12. Antigens
13. Haptens
14. NK cells
15. ADCC
16. Auto immunity
17. Complement fixation
18. ELISA


Head of the Department of Biotechnology
S.V.K.P. & Dr. K.S. Raju Arts & Science College
PENUGONDA - 534 320




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