

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.)

BIOCHEMISTRY	CODE: 19BC1	2019-20	B.Sc.
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Semester – I
Paper – I

BIOCHEMISTRY
MODEL QUESTION PAPER
(BIOMOLECULES)

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.Explain in detail about the importance of buffers in biological system?
2. Explain Donan membrane equilibrium and significance of osmotic pressure in biological system?
3. Describe the detail about storage polysaccharides ?
4. Explain the structure and biological significance of three disaccharides?
5. Write an essay on classification of lipids?

Section-B

6. Describe the composition and organisation of membranes .Explain fluid mosaic model?
7. Explain briefly the structure and classification of aminoacids?
8. Write an account on chemical reactions of aminoacids?
9. Explain about classification of proteins?
10. Explain briefly about the structural organisation of proteins?

Part – 2

Answer any five questions. Each question carries 5 marks.

5×5=25 marks

11. Water Importance
12. Oxygen Electrode
13. Anomers and Epimers
14. Trisaccharides
15. Cholestrol
16. Formation of micelle
17. Essential and non essential aminoacids
18. Denaturation and renaturation of proteins.

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BIOCHEMISTRY	CODE: 19BC2	2019-20	B.Sc.
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Semester – II

BIOCHEMISTRY

Time: 3 Hours

Paper – II

MODEL QUESTION PAPER

Max. Marks: 75

(NUCLEIC ACIDS AND BIOCHEMICAL TECHNIQUES)

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. Describe the chemical structure of DNA?
2. Explain different types of RNA?
3. Write note on types of porphyrins?
4. Describe the structure and function of heme and chlorophyll?
5. Describe the instrumentation and applications of density gradient centrifugation?

Section-B

6. Explain about TLC and its applications?
7. Write principle, instrumentation and applications of SDS PAGE?
8. Describe the uses of Radio Isotopes in biology?
9. Describe the principle instrumentation and applications of spectrophotometry?
10. Write about colorimetry and its applications?

Part – 2

Answer any five questions. Each question carries 5 marks.

5×5=25 marks

11. Phosphodiester bond
12. Hyper chromic effect?
13. Cytochromes
14. Gel filtration
15. Partition Coefficient.
16. Agarose Gel Electrophoresis.
17. Units of radio isotopes
18. Beer - Lambert's Law

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

BIOCHEMISTRY	CODE:19BC3	2020-21	B.Sc.
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Time: 3 Hours

Max. Marks: 75

(Enzymology and Bioenergetics)

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 an essay on nomenclature and classification of enzymes?
2. Write details about Enzyme assay methods?
3. What is enzyme inhibition explain its types?
4. Describe the different factors effecting on enzyme activity?
5. Write about the mechanism of action of Enzyme?

Section-B

6. Explain the Zymogen activation of Chymotrypsin?
7. Describe structure and Biological importance of high energy compounds?
8. Write an essay on free energy change in Biological transformation in Living system?
9. Explain the mechanism of Electron transport chain in detail?
10. Write in detail about Oxidative phosphorylation?

Part – 2

Answer any five questions. Each question carries 5 marks.

5 x 5=25 Marks

11. Enzyme specificity
12. Active site
13. Significance of K_m and V_{max}
14. Michaelis- Menten equation
15. Allosteric Enzymes
16. Rybozyme
17. Free energy
18. Uncouplers

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BIOCHEMISTRY	CODE:19BC4	2020-21	B.Sc.
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Semester – IV

BIOCHEMISTRY

Time: 3 Hours

Paper – IV

MODEL QUESTION PAPER

Max. Marks: 75

(Intermediary Metabolism)

Part – 1

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

5x10=50 Marks

Section-A

1. Discuss about the HMP shunt and its significance?
2. Write about the Dark reaction of Photosynthesis?
3. Write an essay on β -Oxidation of fatty acid?
4. Describe about Biosynthesis & Degradation of Triacylglycerol
5. Describe about Urea cycle and its regulation

Section-B

6. Explain the metabolism of Phenylalanine
7. Describe the catabolism of Heme & purines
8. Write about Denovo synthesis of pyrimidines
9. What is Diabetes write About different types of Diabetes?
10. Write an essay on Four inborn errors of amino acid metabolism

Part – 2

Answer any five questions. Each question carries 5 marks.

5 x 5=25 Marks

11. Gluconeogenesis
12. Pasture effect
13. Ketogenesis
14. Transamination
15. Ketogenic amino acids
16. Thymidylate synthase
17. Gout
18. Arthrosclerosis
