

I/IV B. PHARMACY (Regular) EXAMINATIONS, DECEMBER - 2022**Second Semester****BIOCHEMISTRY - THEORY**Time : **Three Hours**Maximum : **75 Marks****SECTION - A****Answer any FIVE Questions.****5x10 = 50 M**

1. Define and explain the reaction sequences of glycolysis and its energetics.
2. Describe the β -oxidation of palmitic acid along with the energetics.
3. Mention the types of RNA. Explain their role in protein synthesis.
4. Define gluconeogenesis and explain the reactions involved and its significance.
5. Describe the reactions involved in the de novo biosynthesis of fatty acids along with the enzyme system involved.
6. Explain the general reactions involved in the metabolism of amino acids.
7. Explain various reactions involved in the Krebs cycle with energetics.

SECTION - B**Answer any FIVE Questions.****5x5 = 25 M**

8. What is substrate level phosphorylation and oxidative phosphorylation ?
9. Give the Amphibolic nature and energetics of TCA cycle.
10. Write the formation of ketone bodies in the body.
11. Describe the structure and functions of tRNA.
12. Define enzyme inhibition and discuss any one type of enzyme inhibition.
13. Give the structure and biological significance of ATP and cyclic AMP.
14. Define Enthalpy and entropy ? Explain the relation between them.



Total No. of Questions : 14]

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I/IV B. PHARMACY DEGREE EXAMINATIONS, JUNE / JULY -2022

Second Semester

BIOCHEMISTRY - THEORY

Time : Three Hours

Maximum : 75 Marks

SECTION - A

Answer any FIVE Questions.

5x10 = 50 M

1. a) What are Proteins. Classify it.
b) Write the biological role of Lipids.
2. Describe about TCA cycle and its energetics.
3. Explain about disorders of lipid metabolism. Add a note on Fatty liver.
4. Discuss about urea cycle and its disorders.
5. a) Give an account on biosynthesis of cholesterol.
b) Ketoacidosis.
6. Write the biosynthesis of purine and pyrimidine nucleotides.
7. What are enzymes. Explain about regulation of enzymatic activity.

SECTION - B

Answer any FIVE Questions.

5x5 = 25 M

8. Explain in detail about HMP Shunt.
9. What is denaturation. How its effect on biological activity.
10. Explain about bioenergetics and Redox potential.
11. Give an account on catabolism of heme.
12. Write about Transcription and translation.
13. Explain about Inhibitors of ETC.
14. Describe in detail on Enzyme Kinetics.



Total No. of Questions : 14]

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**I/IV B. PHARMACY (REGULAR) DEGREE EXAMINATIONS,
JANUARY - 2022
Second Semester**

BIOCHEMISTRY - THEORY

Time : **Three Hours**

Maximum : 75 Marks

SECTION - A

Answer any FIVE Questions.

5x10 = 50 M

1. a) What are lipids ? Classify it.
b) Write the biological role of aminoacids.
2. Describe gluconeogenesis pathway and add a note on glycogen storage diseases.
3. Discuss about catabolism of phenylalanine and Tyrosine and their metabolic disorders.
4. Explain about organisation of mammalian genome and add a note on protein synthesis inhibitors.
5. Classify enzymes. Write about therapeutic and diagnostic applications of enzymes.
6. Give an account on biosynthesis of purine and pyrimidine nucleotides.
7. Describe about Electron transport chain and its mechanism.

SECTION - B

Answer any FIVE Questions.

5x5 = 25 M

8. Explain in detail about Glycolysis and its energetics.
9. Classify amino acids. Explain its identification tests.
10. Write a note on biochemical functions of bile acids and its formation.
11. Mention the pathway involved in biosynthesis of cholesterol.
12. Describe about β -oxidation of Fatty acid and its energetics.
13. What are coenzymes. Explain them.
14. Write about disorders of lipid metabolism. Add a note on Fatty liver.



I/IV B.PHARMACY (Supply) DEGREE EXAMINATIONS, MAR/APR-2021**Second Semester
B.PHARMACY
BIOCHEMISTRY-Theory**

Time: Three Hours

Maximum marks:75

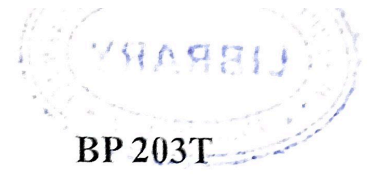
SECTION-A**Answer any FIVE Questions****5X10=50M**

1. Define and classify aminoacids. Discuss the chemical nature and biological role of aminoacids.
2. Discuss the biological significance of ATP and CAMP.
3. Write a detailed note on HMP shunt and its significance.
4. Give an account on Electron transport chain and add a note on its inhibitors.
5. Write a note on disorders of lipid metabolism.
6. Discuss the structure of DNA and add a note on DNA replication.
7. Enumerate the nomenclature and IUB classification of enzymes. Describe the therapeutic and diagnostic applications of enzymes.

SECTION-B**Answer any FIVE Questions****5X5=25M**

8. Classify Carbohydrates and mention the biological role of Carbohydrates.
9. Briefly outline citric acid cycle pathway.
10. Write a short note on substrate level phosphorylation.
11. Enumerate the synthesis and significance of Dopamine.
12. Explain the conversion of cholesterol into Vitamin D.
13. Write a brief note on Translation.
14. Give a brief account on Enzyme induction and repression.





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I/IV B.PHARMACY (Supply) DEGREE EXAMINATIONS, DEC-2019/JAN-2020

Second Semester

B.PHARMACY

BIOCHEMISTRY-Theory

Time: Three Hours

Maximum marks:75

SECTION-A

Answer any FIVE Questions

5X10=50M

1. Define carbohydrates. Write the classification, chemistry and biological role of carbohydrates.
2. Discuss citric acid cycle including its energetics and significance.
3. Write a note on Electron transport chain and its mechanism.
4. Give an account on conversion of cholesterol into bile acids.
5. Describe Urea Cycle and add a note on its disorders.
6. Enumerate the biosynthesis of purine and pyrimidine nucleotides.
7. Write a note on regulation of enzymes.

SECTION-B

Answer any FIVE Questions

5X5=25M

8. Define and classify aminoacids.
9. Outline the relationship between free energy, enthalpy and entropy.
10. Write a brief note on hormonal regulation of blood glucose level.
11. Write the synthesis and biological significance of adrenaline.
12. Explain semi conservative model of DNA replication.
13. Give a brief account on Michaelis plot.
14. Define coenzymes and mention their biochemical functions.



I/IV B.PHARMACY (Regular) DEGREE EXAMINATIONS, SEP-2018

Second Semester

B.PHARMACY

BIOCHEMISTRY-Theory

(Effective from the Admitted batch 2017-18)

Time: Three Hours

Maximum marks:75

SECTION-A

Answer any FIVE Questions

5X10=50M

1. Classify carbohydrates with examples. Explain their significance in human body?
2. What are energy rich compounds? Give examples. Write in detail on any three of them.
3. With a neat scheme explain glycogenesis. Add a note on its biological significance.
4. Write in detail on oxidative phosphorylation.
5. What are amino acids? Classify them with examples. Write a detailed note on metabolism of amino acid.
6. With a neat sketch explain protein synthesis.
7. Explain the chemistry and significance of fatty acid biosynthesis.

SECTION-B

Answer any FIVE Questions

5X5=25M

8. Write in brief on role of amino acids on physico chemical nature of a protein.
9. What is the role of redox potential in biochemical reactions?
10. Write short notes on diabetes mellitus.
11. Write a short note on energy harvested from metabolism of palmitic acid.
12. Write short notes on implications of mutation.
13. Write in brief on urea cycle.
14. Describe the constitution of mammalian genome.

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I/IV B.PHARMACY (Regular & Supply) DEGREE EXAMINATIONS, AUGUST-2019

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Second Semester

B.Pharmacy

BIOCHEMISTRY-Theory

Time: Three Hours

Maximum marks:75

SECTION-A

Answer any FIVE Questions.

5X10=50M

1. Write the classification, chemical nature and biological role of Lipids.
2. Give a detailed account on oxidative phosphorylation.
3. Write a note on disorders that occurs due to alterations in lipid metabolism.
4. Discuss transamination, deamination and decarboxylation of aminoacids.
5. Write a note on catabolism of purine nucleotides.
6. Discuss on Transcription and Translation.
7. Define and classify enzymes. Add a note on therapeutic and diagnostic applications of enzymes.

SECTION-B

Answer any FIVE Questions.

5X5=25M

8. Write the biological significance of ATP and cyclic AMP.
9. What do you mean by endergonic and exergonic reaction.
10. Define Glycolysis and Gluconeogenesis and write their significance.
11. Write a brief note on inhibitors of Electron transport chain (ETC).
12. Explain denovo synthesis of fatty acids.
13. Outline the structure and functions of DNA.
14. Write a short note on enzyme inhibitors with examples.

Total No. of Questions :14]

I/IV B.PHARMACY (Regular & Supply) DEGREE EXAMINATIONS, AUGUST-2019
Second Semester

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B.Pharmacy

BIOCHEMISTRY-Theory

Time: Three Hours

Maximum marks:75

SECTION-A

Answer any FIVE Questions.

5X10=50M

1. Write the classification, chemical nature and biological role of Lipids.
2. Give a detailed account on oxidative phosphorylation.
3. Write a note on disorders that occurs due to alterations in lipid metabolism.
4. Discuss transamination, deamination and decarboxylation of aminoacids.
5. Write a note on catabolism of purine nucleotides.
6. Discuss on Transcription and Translation.
7. Define and classify enzymes. Add a note on therapeutic and diagnostic applications of enzymes.

SECTION-B

Answer any FIVE Questions.

5X5=25M

8. Write the biological significance of ATP and cyclic AMP.
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