Printed Pages:1 **Sub Code:BP203T**

Paper Id: 150297 **Roll No.** | | | | | | | | | | |

B PHARM
(SEM-II) THEORY EXAMINATION 2018-19
BIOCHEMISTRY

Time: 3 Hours ***Total Marks: 75***

Note: Attempt all Sections. If you require any missing data, choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a. What are Phospholipids? Give examples.

b. What are energy rich compounds? Give examples.

c. Define Glycogenesis and Glycogenolysis.

d. Write the hormones involved in the regulation of blood glucose level.

e. What do you understand by the term Transamination? Give example.

f. What is Allosteric inhibition?

g. Define Genetic code with examples.

h. Write down the synthesis of 5-HT (5-hydroxytryptamine) from Tryptophan.

i. Write down the biological role of Nucleic Acid.

j. Define Enthalpy and Entropy.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a. What is gluconeogenesis? Give an outline of reactions. How are these reactions controlled? What is biological importance of these reactions?

b. Give the derivation of Michaelis-Menton equation and also explain factor affecting enzyme activity.

c. Describe the process of DNA replication in detail.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a. Describe Embden Meyerhof pathway (glycolysis) in the body with energetic.

b. Enumerate the ketone bodies. Describe the formation and utilization of ketone bodies in the body.

c. Discuss in detail about urea cycle. Also give the significance of urea cycle.

d. Write in detail the mode of protein biosynthesis with schematic representations.

e. What are enzymes? Describe various processes of inhibition of enzymes activity.

f. Write down the biosynthesis and biological significance of Dopamine, Noradrenaline and Adrenaline.

g. Discuss in detail about the De novo synthesis of fatty acids.

Sub Code:BP203T

Paper Id: 910024 Roll No:

B. PHARM
(SEM-II) THEORY EXAMINATION, 2019-20
BIOCHEMISTRY

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Define electron tranport chain?
b.	Define free energy?
c.	What is hyperbilirubinemia?
d.	Define redox potential?
e.	What is jaundice?
f.	Define vitamin D?
g.	What are the full form of NADH,ATP,TPP,UDP.UTP,NADPH?
h.	Define gout?
i.	Draw the structure of ATP?
j.	Define cholestrol?

SECTION B

2. Attempt any *two*parts of the following: **2 x 10 = 20**

a.	Write the classification of protein?
b.	Write the pathway of glycolysis and its energitics?
c.	Define lipids with its classification?

SECTION C

3. Attempt any *five*parts of the following: **7 x 5 = 35**

a.	Define enzyme kinetics and write down the properties of enzymes?
b.	Write the structure of DNA and RNA?
c.	Write a note on conversion of cholestrol into bile acid and its role?
d.	Write a short note on i).Genetic code ii).Hypercholesterolemia
e.	Describe Coenzyme with its structure and biological function?
f.	Write glycogen metabolism pathway ?
g.	Write the biosynthesis of ketone bodies and their utilization?

PAPER ID-411433

Roll No: | | | | | | | | | | | | | |

BPHARM
(SEM II) THEORY EXAMINATION 2021-22
BIOCHEMISTRY

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Explain the term Phospholipids with examples.
b.	Define essential and non-essential amino acids.
c.	Discuss the term Transamination giving an example.
d.	Define genetic code with suitable example.
e.	Define Enthalpy and Entropy.
f.	Enlist two diseases associated with glycogen metabolism.
g.	Define ketone bodies and ketoacidosis.
h.	Differentiate between Apoenzyme and Holoenzyme
i.	Define electron transport chain and ATP.
j.	Write down the biological role of Nucleic Acid.

SECTION B

2. Attempt any *two*parts of the following: **2 x 10 = 20**

a.	Demonstrate the kinetics of enzymes with derivation of Michaelis-Menton Equation.
b.	Explain the salvage pathway of purine and pyrimidine biosynthesis.
c.	What are ketone bodies? Explain the reactions involved in formation of ketone bodies with suitable example.

SECTION C

3. Attempt any *five*parts of the following: **7 x 5 = 35**

a.	What is oxidative phosphorylation with its mechanism.
b.	Write a note on ß-oxidation of saturated fatty acid.
c.	What is enzyme? Discuss effect of temperature and pH on properties of enzyme.
d.	Discuss DNA repair mechanism.
e.	Describe urea cycle with the reactions involved.
f.	Illustrate the steps involved in biosynthesis of cholesterol.
g.	Explain the structure of DNA and RNA.

Printed Pages: 01 **Sub Code: BP203T**

Paper Id: 238002 **Roll No.** | | | | | | | | | | |

B PHARM
(SEM II) THEORY EXAMINATION 2022-23
BIOCHEMISTRY

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

(a) Classify amino acids with their structures.

(b) What are essential fatty acids? Give examples.

(c) Define the term Glycogen storage disease.

(d) What are uncouplers? Give examples.

(e) Give examples for bile acids and its role in lipid metabolism.

(f) Explain the term Phenylketonuria.

(g) Differentiate codons and anticodons.

(h) Write a note on gout. What are operons?

(i) Classify enzymes with at least one example each.

(j) What is Michaelis-Menten plot?

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

(a) Describe the reactions of Citric acid cycle with its bioenergetics.

(b) Explain the steps of protein biosynthesis and a note on protein synthesis inhibitors.

(c) Elaborate the reactions of urea cycle and its disorders. What is transamination?

SECTION C

3. Attempt any *five* parts of the following: **5 x 7 = 35**

(a) Discuss the various energy rich compounds with their classification and structure.

(b) Explain the HMP shunt pathway with its significance.

(c) Write a short note on Electron Transport Chain and Oxidative Phosphorylation.

(d) Describe the formation and utilization of ketone bodies.

(e) Discuss the β-oxidation of fatty acid with its energetics.

(f) Write short notes on Purine nucleotide biosynthesis.

(g) Describe the competitive enzyme inhibition with suitable examples.

PAPER ID-410973

Subject Code: BP203T

Roll No:

BPHARMA
(SEM II) THEORY EXAMINATION 2023-24
BIOCHEMISTRY

TIME: 3 HRS

M.MARKS: 75

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. **Attempt *all* questions in brief.** 10 x 2 = 20

a.	Define redox potential.
b.	Write the significance of cyclic AMP.
c.	Compare between normal and diabetic glucose levels.
d.	Write problems associated with G6PD deficiency.
e.	Define hypercholesterolemia.
f.	Write the role of 5-HT.
g.	Define allosteric enzyme.
h.	Enlist protein synthesis inhibitors.
i.	Define transamination.
j.	Write the importance of urea cycle.

SECTION B

2. **Attempt any *two* parts of the following:** 2 x 10 = 20

a.	How do you know the chemical nature of carbohydrates? Write the biological role of carbohydrates.
b.	Why citric acid cycle is important for any living organism? Justify your answer.
c.	Write the simplest way of classification of enzyme; write examples of each class also.

SECTION C

3. **Attempt any *five* parts of the following:** 7 x 5 = 35

a.	Why ATP is biologically significant molecule?
b.	Write the pathway of gluconeogenesis; when this pathway gets activated?
c.	Write the pathways of glycogen storage diseases.
d.	Write the biological significance of cholesterol.
e.	Compare the structure of DNA and RNA.
f.	Which enzymes are significant for diagnosis of cardiac problems?
g.	Write the general reactions of amino acids.

PAPER ID-311577

Roll No: | | | | | | | | | | | | | |

BPHARM
(SEM II) THEORY EXAMINATION 2024-25
BIOCHEMISTRY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Differentiate between the endergonic and exergonic reactions.
b.	What is ketoacidosis?
c.	Discuss the symptoms of hypercholesterolemia.
d.	What is transamination?
e.	State the biological role of carbohydrates.
f.	Discuss the enzyme inhibitors with examples.
g.	Recall the applications of isoenzymes.
h.	Define hyperuricemia and gout disease.
i.	Write about the coenzymes.
j.	Define the term isoenzymes.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Explain the pathway, energetics, and significance of the citric acid cycle.
b.	Write about the genetic code and its features.
c.	Discuss the process of oxidative phosphorylation & its mechanism

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Explain the structure of DNA
b.	Write about the glycolysis pathway.
c.	Explain the urea cycle and its disorders.
d.	Describe the electron transport chain (ETC) and its mechanism.
e.	Explain the HMP shunt and its significance.
f.	Describe the hormonal regulation of blood glucose levels and diabetes mellitus.
g.	Give a short note on nomenclature and IUBMB classification of enzymes.

BPharma Bot02

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