

UKA TARSADIA UNIVERSITY

B.Pharm. (4th Semester)

Subject :030020403-Pharmaceutical Biochemistry

Time : 10:00 am to 1:00 pm

Date : 07/12/2013

Duration : 3 Hours

Max. Marks : 70.

Instructions:

1. Attempt all questions.
2. Write each section in a separate answer book.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks allocated to that question.
5. Draw diagrams/figures whenever necessary.

SECTION - 1

Q-1 (A) Do as directed.

[07]

- I) Enlist enzymes that help for diagnosis of myocardial infraction.
- II) Justify: Mitochondria is known as the power house of the cell.
- III) Differentiate Glycogenesis from Gluconeogenesis.
- IV) Give the name of disease that indicates by elevated Aldolase enzyme activity in serum.
- V) Write deficiency symptoms associated with vitamins Thiamine and Niacin.
- VI) Write about Energetic of Glucose oxidation.
- VII) Justify: Muscle glycogen does not directly contribute to blood glucose.

[08]

Q-1 (B) Answer the following in brief. (Any 4)

- I) Degradation of phospholipid
- II) Regulation of citric acid cycle
- III) Write about significance on Hexose Monophosphate Shunt
- IV) Justify: Vitamin D is a hormone not a vitamin.
- V) Enlist factor inhibiting Ca absorption.
- VI) Uncouplers

[10]

Q-2 Answer the following.

- A) Write biochemical functions and deficiency symptoms of Vitamin E.

OR

- A) Uronic acid pathway
B) Glycogenesis

OR

- B) Write a note on Citric Acid Cycle.

Q-3 Answer the following in detail. (Any 2)

[10]

- A) Reaction mechanism and inhibitors of the electron transport chain.
- B) Write an account on chemistry, biochemical function and deficiency symptoms of ascorbic acid.
- C) Biosynthesis of Fatty acid.

SECTION - 2

Q-4 (A) Do as directed.

[07]

- I) Justify: Triacylglycerols are the most predominant storage form of energy.
- II) Give the name of enzyme that undergoes oxidative deamination for urea synthesis.
- III) Write about β - oxidation of Fatty acids in piroxicam.
- IV) Write about Termination of translation of protein synthesis.
- V) Write Functions of DNA topoisomerase.
- VI) Give name of enzyme that control prostaglandin synthesis.
- VII) Jusify: Ketonebodies are not utilized by liver.

Q-4 (B) Answer the following in brief. (Any 4)

[08]

- I) Carnitine shuttle pathway
- II) Conversion of Glycine to specialized product
- III) Deamination
- IV) Replication fork
- V) Metabolism of Tryptophan by Serotonin Pathway
- VI) Bioc hemical functions of Zinc

Q-5 Answer the following.

[10]

A) Biosynthesis of Pyrimidine Ribonucleotide

OR

A) Oxidation of Odd carbon chain fatty acid

B) Replication of DNA

OR

B) Ketogenesis

Q-6 Answer the following in detail. (Any 2)

[10]

- A) Urea cycle
- B) Transcription in prokaryotes
- C) Biosynthesis of Fatty acid