



UNIVERSITY OF THE PUNJAB

Seventh Semester – 2019

Examination: B.S. 4 Years Program

Roll No. in Fig.

Roll No. in Words.

PAPER: Bio Chemistry (Sp. Theory-I)
Course Code: CHEM-418 Part-I (Compulsory)

MAX. TIME: 15 Min.

MAX. MARKS: 10

Signature of Supdt.:

Attempt this Paper on this Question Sheet only.

Please encircle the correct option. Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

Q.1. Encircle the right answer, cutting and overwriting is not allowed. (1x10=10)

- Gigantism, a disease of accelerated growth, can be caused by primary tumors of the anterior pituitary gland. In patients with tumor-induced gigantism, levels of growth-hormone-releasing factor would be expected to be:
A: Lower than usual
B: Unchanged
C: Higher than usual
D: Differ by tumor size
- Cori's, McArdle's, von Gierke's and Andersen's diseases are all examples of:
A: Glycogenolysis
B: Gluconeogenesis
C: Glycogenesis
D: Glycogenolysis
- Which of the following is important in transferring energy from the glycolytic pathway to the TCA cycle?
A: NADH
B: FADH₂
C: Citrate
D: Acetyl CoA
- Glucose-1-phosphate is produced from glycogen via:
A: Oxidative Phosphorylation
B: Substrate Phosphorylation
C: Glycogen Kinase Activity
D: Phosphorolysis
- Fatty acid oxidation occurs in:
A: Cytoplasm
B: Mitochondria
C: Microsomes
D: All of the above
- A fatty acid that is not synthesized in man is:
A: Linoleic acid
B: Oleic acid
C: Palmitic acid
D: Stearic acid
- Net ATP production of glycolysis is
A: 2
B: 3
C: 4
D: 5
- Largest endocrine gland in human body is called
A: Parathyroid gland
B: Adrenal gland
C: Pituitary gland
D: Thyroid gland
- Every cycle of β -oxidation produces
A: 1 FAD, 1 NAD⁺ and 2 CO₂ molecules
B: 1 FADH₂, 1 NADH and 1 acetyl co-A
C: 1 FADH₂, 1 NAD⁺ and 1 acetyl co-A
D: 1 FAD, 1 NADH and 2 CO₂ molecules
- The substance essential for transfer of fatty acids across mitochondrial membrane
A: Creatine
B: Creatinine
C: Carnitine
D: Coenzyme A



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PAPER: Bio Chemistry (Sp. Theory-I)

Course Code: CHEM-418 Part – II

MAX. TIME: 2 Hrs. 45 Min.

MAX. MARKS: 50

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Q2. Answer the following short questions

(2x10=20)

1. Describe the un-couplers of oxidative phosphorylation?
2. How carbohydrate metabolism is regulated in the body?
3. What is the difference between gluconeogenesis and glycogenesis?
4. Describe complete absorption of lipids in the body.
5. Enlist the names of pancreatic hormones and their respective cells.
6. Write any two differences between pheromone and hormone.
7. What are Ketone bodies?
8. By which mechanism fatty acids get activation for oxidation?
9. What are the biological functions of insulin hormone?
10. Why citric acid cycle is amphibolic in nature?

Q3. Answer the following long questions

(3x10=30)

1. Discuss briefly oxidative phosphorylation and regulation of ATP production.
2. Explain the chemistry, synthesis and biological function of Parathyroid hormone.
3. Write a note on the metabolism of essential fatty acids and their metabolic disorders.