



UNIVERSITY OF THE PUNJAB

Third Semester – 2019

Examination: B.S. 4 Years Program

Roll No. in Fig.

Roll No. in Words.

PAPER: Zoology-III (Biochemistry)

MAX. TIME: 15 Min.

Course Code: ZOOL-201/ZOL-21302 Part-I (Compulsory)

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)

1. Which of the following amino acid has amide group in its side chain
A) Cysteine
B) Lysine
C) Glutamine
D) Isoleucine
E) None of these
2. The minimum number of carbon in a monosaccharides is
A) 2
B) 3
C) 4
D) 6
E) None of these
3. Lipid are important constituents of
A) Nucleus
B) Ribosome
C) Biological membranes
D) All of these
4. Which of the following have no enzymes of their own?
A) Bacteria
B) Cynobacteria
C) Viruses
D) All of above
5. Carbohydrates occur naturally in
A) D-form
B) L-form
C) Both A and B
D) None of these
6. Lamarck theory of organic evolution is usually known as
A) Inheritance of acquired characters
B) Descent with change
C) Continuity of germplasm
D) All of above
E) None of these
7. In which condition gene ratio remains constant in a species?
A) Gene flow
B) Mutation
C) Random mating
D) Sexual selection
E) None of these
8. Habitat destruction can result in a loss of
A) Species
B) Community
C) Ecosystem
D) None of these
9. The lowest trophic level of an ecosystem always includes
A) Producers
B) Consumers
C) Herbivores
D) Carnivores
E) None of these
10. The community and its abiotic environment constitutes a
A) Biosphere
B) Habitat
C) Ecosystem
D) Food web
E) None of these



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PAPER: Zoology-III (Biochemistry)

MAX. TIME: 2 Hrs. 45 Min.

Course Code: ZOOL-201/ZOL-21302 Part – II

MAX. MARKS: 50

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Q.2 Give short answer of the following 2x10=20

- i. Differentiate between starch and glycogen.
- ii. How pH affect enzyme activity.
- iii. What is meant by micro-evolution? Give an example.
- iv. Write the differences between coenzyme and cofactor.
- v. What is meant by immunoglobulin and its types?
- vi. State 1st law of thermodynamics with an example.
- vii. Write major functions of lipids.
- viii. What is meant by energy flow? Briefly discuss
- ix. Explain crossbreeding with respect to evolution.
- x. Differentiate between ecosystem and biome.

Q.3 Long questions. 3x10=30

- I** Write a comprehensive note on phosphorus and carbon cycle.
- II** Explain different evidences of evolution in detail.
- III** What is meant by homo- and hetero- polysaccharides? Write in detail about peptidoglycans of bacterial cell wall.