



**UNIVERSITY OF THE PUNJAB**  
**B.S. 4 Years Program : Third Semester – 2020**

Roll No. in Fig. ....

Roll No. in Words. ....

Paper: Biology

Course Code: BIO-112 Part – I (Compulsory)

Time: 15Min. Marks: 10

**Attempt this Paper on this Question Sheet only.**

**Division of marks is given in front of each question.**

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

.....  
Signature of Supdt.:

**Q.1. Encircle the right answer cutting and overwriting is not allowed. (10x1=10)**

- 1- Which of the following is the structural and functional unit of life
  - a) Nucleus b) Cytoplasm c) Cell d) Protoplasm
- 2- Biology is the
  - a) Study of all living things
  - b) Study of uniformity behind diversity in living organisms
  - c) Study of life as recorded by fossils
  - d) Study of growth and differentiation in living organisms
- 3- A structure within a cell that performs a specific function is called
  - a) Protein b) Organ system c) Organelle d) System
- 4- The tendency of offspring to differ from parents is called
  - a) Variation b) Heredity c) Inheritance d) Resemblance
- 5- The algae are in Kingdom
  - a) Protista b) Plantae c) Fungi d) Animals

- 6- Which organism possesses characteristics of plants and animals  
a) Bacteria b) Monera c) Euglena d) Mycoplasma
- 7- Name the basic structural and functional unit of the nervous system.  
a) Neuroglia b) Glial cells c) Neurons d) Perikaryon
- 8- Members of one species inhabiting the same area is called  
a) Community b) Population c) Habitat d) Species
- 9- DNA is the genetic material in  
a) Viruses, Prokaryote, Eukaryote ) Prokaryote, Eukaryote  
b) Only in eukaryotes d) In some Viruses, Prokaryote, Eukaryote
- 10- Which of the following bonds can be found in enzymes  
a) Peptide bonds b) Hydrogen bonds c) Disulphide bridges d) Ionic bonds



**ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED**

**Q.2. Give short answers of the following:**

**(10x2=20)**

- 1- Differentiate between population and community
- 2- Define Biology and write also its meaning and derivation.
- 3- Differentiate between catabolism and anabolism
- 4- Differentiate between leading strand and lagging strands.
- 5- Why do some species survive while others go extinct?
- 6- Differentiate "Diffusion" and "Osmosis".
- 7- Differentiate between gross and net primary productivity.
- 8- Differentiate between Efferent neuron and Afferent neuron
- 9- What are the features shared by Algae and Plants?
- 10- Give two reasons for use of pea as experimental plant by Mendel.

**Give brief answers of the followings.**

**(3x10=30)**

Q. No. 3: What is gene expression? Describe process of DNA replication.

Q. No. 4: Describe the structure and function of Brain with the help of Diagram.

Q.No.5(a) Define Ecosystem. Write note on ecological pyramids. (05)

(b) Give a comparison of mitosis and meiosis. Also describe their importance. (05)