

**PARUL UNIVERSITY**  
**FACULTY OF APPLIED SCIENCE**  
**B.Sc., Winter 2018-19 Examination**

**Semester: 1****Date: 22/12/2018****Subject Code: 11100105****Time: 10.30 am to 1.00 pm****Subject Name: Foundations of Biology -I****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
- (a) Explain Lamarck's theory.
  - (b) Describe prokaryotic cell and its properties.
- Q.1. B) Answer the following questions (Any two)**
- (a) Short note/ Brief note (04)
    1. Evolution
    2. theory of origin of life.  - (b) Explain animal cell with diagram. (04)
  - (c) Give difference between plant and animal cell. (04)
- Q.2. A) Answer the following questions.**
- (a) Short note/ Brief note (2x2) (Each of 02 marks) (04)
    1. Describe cell wall.
    2. Explain the role of mitochondria present in the cell.  - (b) Broad classification of cell types. (04)
- Q.2. B) Answer the following questions (Any two)**
- (a) Short questions (Each of 01 marks) (03)
    1. What is Lysosome?
    2. What is cell wall made up of?
    3. What are ribosomes?  - (b) Describe Plasma membrane. (03)
  - (c) Explain golgi complex. (03)
- Q.3. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
- (a) Explain morphology of cockroach.
  - (b) Explain modification of root.
- Q.3. B) Answer the following questions (Any two)**
- Short note: (04)
- (a) Connective Tissues.
  - (b) Types of roots. (04)
  - (c) Modification of stem in plants. (04)

**Q.4. A) Answer the following questions.**

(a) Short note: **(04)**

1. Explain the basic concept of Genetics.

(b) explain theory of Darwin.. **(04)**

**Q.4. B) Answer the following questions (Any two)**

(a) **Short questions** **(Each of 01 marks)** **(03)**

1. What is the scientific name of cockroach?

2. What is the scientific name of Human?

3. Which organelle of cell gives structure and protection to cell?

(b) Explain types of blood cells. **(03)**

(c) Explain Types of seeds. **(03)**