

**PARUL UNIVERSITY**  
**FACULTY OF APPLIED SCIENCE**  
**B.Sc., Summer 2017-18 Examination**

**Semester: 3**  
**Subject Code: 11101205**  
**Subject Name: Microbial Diversity and Classification**

**Date: 02/06/2018**  
**Time: 10:30 am to 1:00 pm**  
**Total Marks: 60**

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**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)** Enlist various structures external to the cell wall and explain the structure which is involved in locomotion with diagram. (08)
- Q.1. B) Answer the following questions (Any two)**
- (a) Explain locomotion in Protozoa with suitable examples. (04)
- (b) Enlist various pigments present in algae and explain any one in detail. (04)
- (c) Explain Whittaker five kingdom classification. (04)
- Q.2. A) Answer the following questions.**
- (a) Explain the cell wall of gram positive group of bacteria. (04)
- (b) Explain sexual reproduction in Fungi in detail. (04)
- Q.2. B) Answer the following questions (Any two)**
- (a) Explain classification of Fungi in brief. (03)
- (b) Draw well labelled diagram of Bacteriophage. (03)
- (c) Enlist economic importance of algae. (03)
- Q.3. A)** Explain Bergey's manual of classification in detail. (08)
- Q.3. B) Answer the following questions (Any two)**
- (a) Explain the interaction between algae and fungi. (04)
- (b) Write a note on *Streptomyces*. (04)
- (c) Explain the domain of Carl Woese classification which includes prokaryotes. (04)
- Q.4. A) Answer the following questions.**
- (a) Enlist different interactions between microorganisms and explain Mutualism. (04)
- (b) Name an asexual reproductive method by which yeast reproduces. Explain in brief. (04)
- Q.4. B) Answer the following questions (Any two)**
- (a) What is dimorphic fungi? (03)
- (b) Draw a Linnaean system of classification consists of a hierarchy of groupings. (03)
- (c) Define: (1)Taxon (2)Kingdom (3)Species (03)