

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
B.Sc./IMSc Winter 2017-18 Examination

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

Date: 01/01/2018
Time: 10:30 am to 1:00 pm
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 (08)**
Give a brief account of classification of fungi.
- Q.1. B) Answer the following questions (Any two) (04)**
(a) Brief note (2x2) (04)
1. Synergism.
2. Commensalism.
(b) Describe how microbes present in rumen benefit the host. (04)
(c) Short note on Carl Woese 3 domain Classification (04)
- Q.2. A) Answer the following questions. (04)**
(a) Give two examples of: (Each of 02 marks) (04)
1. Beneficial bacteria.
2. Viruses.
(b) Enlist the economic uses of Algae. (04)
- Q.2. B) Answer the following questions (Any two) (03)**
(a) Define: (Each of 01 marks) (03)
1. Ectomycorrhiza.
2. Endomycorrhiza.
3. Lichens.
(b) Short note on Contributions of Carolus Linneaus. (03)
(c) Short note on Rhizosphere. (03)
- Q.3. A) Essay type (08)**
Describe how bacteria are classified according to Bergey's manual.
- Q.3. B) Answer the following questions (Any two) (04)**
(a) Short note on Whittaker's 5 kingdom classification. (04)
(b) Short note on Root Nodule Symbiosis. (04)
(c) Short note on Life Cycle of a virus. (04)
- Q.4. A) Answer the following questions. (04)**
(a) Brief note (2x2) (04)
1. Scientific Nomenclature of microorganisms.
2. *Rhizobium*.
(b) Explain structure of flagella in bacteria with suitable diagram. (04)
- Q.4. B) Answer the following questions (Any two) (03)**
(a) Define: (Each of 01 marks) (03)
1. Taxonomy
2. Symbiosis
3. Pathogen
(b) Short note on structure of bacteria. (03)
(c) Short note on plant fungal pathogens. (03)