PG Even Semester Exam, 2024

Microbiology

4th Semester

COURSE NO. MBCC- 652

[Microbial Diversity]

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer five questions, selecting one from each unit.

UNIT-I

1. In details discuss the three domains of the 'Tree of Life'. 14
2. In details discuss the major taxonomic groups. Give a brief concept of microbial species. 7+7=14

UNIT-II

3. Discuss the significance of 16s r-RNA gene sequencing for bacterial identification and phylogenetic analysis. 14
4. Discuss the significance of DNA fingerprinting and multi locus sequence analysis (MLSA) in polyphasic taxonomy. 7+7=14

Turn over

UNIT-III

5. Write notes on- 7x2=14
   a. Chemotrops
   b. Photo trops
6. Write notes on- 7x2=14
   a. Thermophiles
   b. Halophiles

UNIT-IV

7. Write short note on Bergey's manual classification. Mention their significant phenotypic and molecular criteria for bacterial classification. 10+4=14
8. Discuss significant phenotypic and molecular criteria adapted for bacterial classification. 14

UNIT-V

9. Write notes on- 7x2=14
   a. Fungal life cycle and reproduction
   b. Photosynthesis and pigments in algae
10. Write note on- 7x2=14
    a. Protozoa as parasite and pathogen
    b. Mycorhizal and lichen symbiosis.

★★★

2024/SEM/EVEN/09/27/MIB-652/126

PG Even Semester Exam, 2024

Microbiology

4th Semester

COURSE NO. MBCC- 652

[Microbial Diversity]

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer five questions, selecting one from each unit.

UNIT-I

1. In details discuss the three domains of the 'Tree of Life'. 14
2. In details discuss the major taxonomic groups. Give a brief concept of microbial species. 7+7=14

UNIT-II

3. Discuss the significance of 16s r-RNA gene sequencing for bacterial identification and phylogenetic analysis. 14
4. Discuss the significance of DNA fingerprinting and multi locus sequence analysis (MLSA) in polyphasic taxonomy. 7+7=14

Turn over

UNIT-III

5. Write notes on- 7x2=14
   a. Chemotrops
   b. Photo trops
6. Write notes on- 7x2=14
   a. Thermophiles
   b. Halophiles

UNIT-IV

7. Write short note on Bergey's manual classification. Mention their significant phenotypic and molecular criteria for bacterial classification. 10+4=14
8. Discuss significant phenotypic and molecular criteria adapted for bacterial classification. 14

UNIT-V

9. Write notes on- 7x2=14
   a. Fungal life cycle and reproduction
   b. Photosynthesis and pigments in algae
10. Write note on- 7x2=14
    a. Protozoa as parasite and pathogen
    b. Mycorhizal and lichen symbiosis.

★★★