

M.Sc.(Microbiology) (CBCS Pattern) First Semester
PSMBT-101-Paper-I : Microbial Diversity & Evolution

P. Pages : 1

Time : Three Hours



GUG/W/18/11171

Max. Marks : 80

Notes : 1. All questions are compulsory and carry equal marks.

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| 1. | Describe in detail evolution of earth and early life forms. | 16 |
| | OR | |
| | a) Explain in detail bacterial speciation. | 8 |
| | b) Give the characteristics of domain of life. | 8 |
| 2. | a) Describe general metabolism in archea with evolutionary significance. | 8 |
| | b) What are heat stable biomolecules? Explain their types. | 8 |
| | OR | |
| | a) Write notes on thermoproteus and sulfolobales. | 8 |
| | b) Give account on methanogens and Thermoplasma. | 8 |
| 3. | Explain cyanobacteria with respect to prochlorophytes. | 16 |
| | OR | |
| | Write notes on | |
| | a) Iron oxidising bacteria. | 8 |
| | b) Sulphur reducing bacteria. | 8 |
| 4. | Describe in detail Branching Hyperthermophiles and Thermotoga. | 16 |
| | OR | |
| | Explain | |
| | a) Green Sulphur bacteria. | 8 |
| | b) Green non Sulphur bacteria. | 8 |
| 5. | Write short notes on | |
| | a) Signature sequences. | 4 |
| | b) Energy metabolism in crenarchaeota. | 4 |
| | c) General characteristics of phylum verrucomicrobia. | 4 |
| | d) Deferribacter. | 4 |
