

M.Sc. (Microbiology) (CBCS Pattern) First Semester
PSMBT-102 - Microbial Physiology & Metabolism Paper-II

P. Pages : 1

Time : Three Hours



GUG/W/18/11172

Max. Marks : 80

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

1. Describe the Kreb's cycle in detail with its energetics. 16

OR

Describe the followings.

a) Pentose Phosphate pathway. 8

b) Substrate Level phosphorylation. 8

2. Explain Kelvin cycle with diagrammatic representation. 16

OR

Describe the followings.

a) Mechanism of energy generation in cyanobacteria. 8

b) B- Oxidation of fatty acids. 8

3. Discuss the biosynthesis of Pyrimidine nucleotides by Salvage pathway. 16

OR

Write note of followings.

a) Urea cycle. 8

b) Degradation of Purine nucleotides. 8

4. Describe Nitrogen cycle in detail with diagrammatic representation. 16

OR

Write note on followings.

a) Nitrogenase complex and its function. 8

b) Genetics of N₂ fixation. 8

5. Write short note of following. 4

a) Glycogenolysis. 4

b) Ketone bodies. 4

c) Biosynthetic families of amino acids. 4

d) Nif gene. 4
