

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

P. Pages : 1

Time : Three Hours



GUG/W/23/11172

Max. Marks : 80

- Notes : 1. All questions are compulsory.
2. Draw the diagram wherever it is necessary.

1. Write in detail about glycogenesis and glycogenolysis. **16**

OR

a) Write a note on Chemiosmotic theory of ATP synthesis. **8**

b) Substrate level phosphorylation. **8**

2. Discuss the light and dark reaction of photosynthesis. **16**

OR

a) Oxidation of unsaturated fatty acid. **8**

b) Biosynthesis of phospholipid. **8**

3. Describe the biosynthesis of nucleotide by de novo and salvage pathway. **16**

OR

Write a short note on.

a) Urea cycle. **8**

b) Breakdown of amino acids. **8**

4. Describe in detail structure, function and regulation of nitrogenase complex. **16**

OR

a) Write short note on nif genes. **8**

b) Nitrogen cycle. **8**

5. a) Lactic acid fermentation. **4**

b) Ketone bodies. **4**

c) Regulation of amino acid metabolism. **4**

d) Denitrification. **4**
