

M. SC. (MICROBIOLOGY) SEM-II (C.B.C.S.) (2012 COURSE) :

SUMMER - 2018

SUBJECT: ELECTIVE – I: MICROBIAL METABOLISM

Day: **Thursday**
Date: **19/04/2018**

S-2018-0909

Time: **03.00 PM TO 06.00 PM**
Max. Marks: 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat labeled diagrams **WHEREVER** necessary.
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Q.1 Describe in detail Oxidative Phosphorylation. **(15)**

OR

Describe metabolic control of enzyme activity. **(15)**

Q.2 a) Discuss the steps in Omega oxidation of fatty acid. **(08)**

b) Describe the Redox couple. **(07)**

OR

a) Discuss the process of Hormonal regulation. **(08)**

b) Describe the energetics of proton motive force. **(07)**

Q.3 Attempt any **THREE** of the following: **(15)**

- a)** Give brief account of clinical disorders of purine metabolism.
- b)** Describe metabolism of phospholipids.
- c)** How deoxyribo-nucleotides are synthesized from their precursor?
- d)** Describe Glyoxylate bypass.

Q.4 Attempt any **THREE** of the following: **(15)**

- a)** Heterolactic fermentation
- b)** Co- factors of Glycolysis
- c)** Orthocleavage pathway
- d)** Inhibitors of nucleotides synthesis

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