

**M. SC. (MICROBIOLOGY) SEM-II (C.B.C.S.) (2012 COURSE)
: WINTER - 2017**

SUBJECT: ELECTIVE – (A) MICROBIAL METABOLISM

Day : Monday
Date : 30/10/2017

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

W-2017-0809

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 Discuss the respiratory mechanism in bacterial cells. **(15)**

OR

Discuss briefly the methods employed to study metabolism.

Q.2 Attempt the following:

- a) Give an account of metabolic control of enzyme activity. **(10)**
- b) Discuss briefly the hormonal regulation. **(05)**

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

- a) Structure and function of NAD.
- b) β -oxidation of fatty acid.
- c) Energetics of proton motive force.
- d) Discuss Krebs cycle.

Q.4 Write short notes on any **THREE** of the following: **(15)**

- a) Inhibitors of nucleotide biosynthesis
- b) Metabolism of glycogen
- c) Saccharolytic bacteria
- d) Gluconeogenesis

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