

**M. SC. (Microbiology) SEM-II (C.B.C.S.) (2012 COURSE) : WINTER  
2018**

**SUBJECT : ELECIIVE: a) MICROBIAL METABOLISM**

Day : -Monday  
Date : 15/10/2018

**W-2018-1027**

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

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
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**Q.1** Explain in details biosynthesis of palmitate from Acetyl CoA. Write the net reaction. Add comment on chain elongation. [15]

**OR**

Write in details the structure and working of mitochondrial ETC. Comment on inhibitors and uncouplers.

**Q.2** a) Write the steps in degradation of any one purine. Discuss in brief about any two clinical disorders of purine metabolism. [08]

b) Write a note on high energy compounds with one suitable example. [07]

**Q.3** Answer any **THREE** of the following: [15]

- a) Explain the metabolic fate of pyruvate
- b) Diagrammatically represent the overview of oxidative energy generation.
- c) Write the regulatory mechanism for glycolysis pathway.
- d) Give role of sulfur compounds in anaerobic respiration

**Q.4.** Write notes on any **THREE**: [15]

- a) Proton motive force
- b) Entry of galactose in Glycolysis
- c) Nernst's equation
- d) Catabolism

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