

SUBJECT: ELECTIVE: A) MICROBIAL METABOLISM

Day: Saturday
Date: 20/04/2019

S-2019-1212

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.

Q.1 Explain the biosynthesis of palmitate. (15)

OR

Describe HMP pathway & give its significance.

Q.2 a) Describe metabolic pathway for synthesis of pyrimidine nucleotides. (8)

b) Describe in brief oxidative phosphorylation. (7)

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

- a) Describe ETC of Sulfate reducers.
- b) Explain pathway of phospholipid synthesis.
- c) Write a note on Stickland reaction.
- d) Draw the structure of purine nucleus and schematically explain synthesis of AMP and GMP from Inosine mono phosphate.
- e) Write a note on homolactic fermentation.

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

- a) Write a note on Bacterial ETC.
- b) Define the term metabolic reaction, enlist various types & describe any one giving a suitable example.
- c) What are high energy compounds?
- d) Write a note on regulation of glycolytic pathway.
- e) Describe degradation of glycogen.

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