DG-3136

B. Sc. (Microbiology) (Sem. - V) Examination
March/April - 2016
MB - 12 : Microbial Physiology

Time : 2 Hours [Total Marks : 50]

Instructions :

(1) Fill up strictly the details of ♦ signs on your answer book.

Name of the Examination:

B. SC. (MICROBIOLOGY) (SEM. - 5)

Name of the Subject:

MB - 12 : MICROBIAL PHYSIOLOGY

(2) Figures to the right indicate full marks of the question.

(3) Draw neat and labeled diagrams whenever necessary.

Q.1 Give Specific answers 12

a. Differentiate between: Homo lactic acid fermentation and Hetero lactic acid fermentation

b. Define: (i) Denitrification (ii) Oxidative Phosphorylation

c. What do you mean by “Sulfer Oxidizers”. Give any two examples of it

d. Name the cycle known as glycosylate bypass pathway. When it came in to existence?

e. What do you mean by Reverse TCA Cycle? Name the bacteria can utilize this pathway

f. What is the major role of Transaminases. Name two significant transaminases

Q.2 Explain/comment on any two of the following 12

a. Justify: Two Hydrogen carriers are the important components of ETC
b. Justify: The glycolytic pathway is of conversion of glucose to pyruvic acid

c. Explain: How non-oxidative deaminases are specific in their functions and substrate requirements

Q3. Discuss any two of the following.

a. Define photosynthesis and discuss various types of photosynthesis in detail

b. Discuss: How Acetyl co-A act as precursor molecule for TCA cycle

c. Enlist the general reactions of aminoacids. Discuss any three in detail

Q.4 write short notes on any two of the following

a. Arrangement of ETC in Cell membrane

b. Fermentations: Fueling reactions

c. Caratenoids