

Shivaji College
B.Sc (Hons.) Biochemistry, Semester-III
Class Test
Bioenergetics
UPC- 2492012302

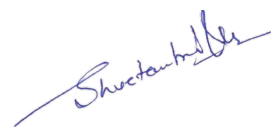
Time: 1 hrs

Date: October 17, 2023

Maximum Marks: 20

- 1. Describe the process of cyclic photophosphorylation with the help of Diagram.
Give a schematic presentation of electron flow in PSII 06**
- 2. Give the mode of action of the following inhibitors: 03**

Oligomycin
DCCD
DCMU
- 3. What are different electron carriers in complex I of the mitochondrial electron
transport chain? 05**
- 4. Compare the photosynthetic efficiency of cyclic and non-cyclic
photophosphorylation.**
- 5. Describe the Mechanism of mitochondrial ATP synthesis with illustrations. 06**



Shivaji College
B.Sc (Hons.) Biochemistry, Semester-III
Assignment
Bioenergetics
UPC- 2492012302

Date: October 03, 2023

Maximum Marks: 50

1. Differentiate between the following:
 - A. Isolated and Closed system
 - B. Endergonic and Exergonic reactions
 - C. PS I and PSII in thylakoid membranes
 - D. Purple and Green Photosynthetic Bacteria
 - E. Proton Motive force across mitochondrial and chloroplast membranes.
 - F. Differentiate between NAD and FAD as electron carriers.
2. State the chemiosmotic theory. Give experimental proof that oxidation is obligatory coupled to phosphorylation in mitochondria.
3. What are the reactive oxygen species and how they are produced?
4. Give the structure of F₀F₁ ATP synthase, with functional role of different subunits.
5. Give the schematic presentation of ETC in mitochondria. Give the site of inhibition of following inhibitors.

