

Department of Botany, Shivaji College
Internal test

Unique Paper Code : 32161601
Name of the Paper : Plant Metabolism
Name of the Course : B.Sc. (H) Botany
Semester : VI
Date : 13.04.2023

Time: 1 hr
Maximum marks: 30

1. Fill in the blanks (any five) (0.5 * 5 = 2.5) marks

- a. Number of β -oxidation cycle required for complete decomposition of oleic acid (C18) is
- b. Triglycerides are stored in a vesicle of single leaflet membrane. Such organelles are termed as.....
- c. Acetyl-coA is converted in succinate via cycle.
- d. Dinitrogenase enzyme requires moles of ATPs are to fix one mole of nitrogen.
- e. Oxidation of nitrite to nitrate is performed byenzyme.
- f. *Glutamine:2-oxoglutarate aminotransferase*, or GOGAT is also known as..... synthase.

2. Comment on the following (any four) (5 * 4 = 20) marks

- a. GS-GOGAT pathway – *only diagram*
- b. Draw glyoxylate cycle – *only diagram*
- c. Nitrogenase reductase
- d. Transamination
- e. β -oxidation

3. Match the following (0.5 * 5 = 2.5) marks

1. Triglycerides synthesis	a. Desaturases
2. Nitrate reductase	b. Leg-haemoglobin
3. Oxygen	c. Condensation reaction
4. Insertion of double bond	d. Molybdopterin cofactor
5. Ketoacyl-ACP synthase (KAS)	e. Endoplasmic reticulum

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