

ST. JOSEPH'S COLLEGE FOR WOMEN (AUTONOMOUS), VISAKHAPATNAM
VIII SEMESTER **BIOTECHNOLOGY** TIME: 2 Hrs/ Week
BTH 8752 (3) **ENZYMOLGY & INTERMEDIARY METABOLISM** Max. Marks: 50
(Core course)

W.e.f 20AH Batch

OBJECTIVE: To enable the students to

1. To learn to assay of amylase, urease, catalase
2. To know the effect of pH, temperature and substrate concentration on enzyme activity.
3. To do estimation of glucose
4. To do estimation of total carbohydrates
5. To Perform estimation of amino acid

COURSE OUTCOMES: Students will

- **CO1:** Be able to list out different types of nurseries and beds
- **CO2:** Identify the nursery tools, implements and containers.
- **CO3:** Develop skill on potting media preparation and plant production
- **CO4:** Learn the technique of establishing cutting, layering, grafting etc.

PRACTICAL COURSE:

1. Assay of amylase.
2. Assay of urease.
3. Assay of catalase
4. Effect of pH, temperature and substrate concentration on enzyme activity.
5. Estimation of glucose by DNS method.
6. Estimation of glucose by Benedict's titrimetric method.
7. Estimation of total carbohydrates by Anthrone method.
8. Tests for lipids-Salkowski test, Lieberman-Burchard test.
9. Estimation of amino acid by Ninhydrin method.

REFERENCES

1. Principles of Biochemistry by A.L. Lehninger, 2 Ed. (Worth).
2. Lehninger Principles of Biochemistry by Nelson, D and Cox, D. Macmillan Pub.
3. Biochemistry by L. Stryer 5 Ed. (Freeman-Toppan).
4. Text Book of Biochemistry by West et. al., (Mac Millan).
5. Principles of Biochemistry by Smith et. al., (McGraw Hill).
6. Harper's Biochemistry (Langeman).
7. Biochemistry by D. Voet and J.G. Voet (John Wiley).
8. Enzymes by Palmer (East).