ST.JOSEPH'S COLLEGE FOR WOMEN (AUTONOMOUS), VISAKHAPATNAM

VII SEMESTER **BIOTECHNOLOGY** TIME: 2 Hrs/ Week

BTH 7754(3) **MICROBIAL CULTURING TECHNIQUES** Max. Marks: 50

(Core course)

W.e.f 20AH Batch

OBJCECTIVE: To enable the students to

1. Develop mastery in isolation of microorganisms
2. Acquire the ability on preparation of different media
3. Can able to identify the microorganisms
4. Able to establish microbial preservation unit

COURSE OUTCOMES: Students will

- **CO1:** Be able to list out different types of nurseries and beds
- **CO2:** Indentify 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. Preparation of nutrient agar media
2. Preparation of PDA media
3. Preparation of Rose Bengal media
4. Isolation of soil bacteria by Serial dilution technique
5. Isolation of fungi from infected citrus fruits
6. Simple staining technique
7. Grams Staining
8. Preparation of slant and stab cultures

REFERENCES

1. Microbiology: concepts and Applications. Michael J. Pelczar, Jr., E.C.S., Chan, Noel R. Krieg, 1993. Me. Graw Hill, Inc.
2. Introductory Microbiology. 1995, by Trevor Gross.
3. Fundamentals of Microbiology. 4ltled. 1994. I.E.AIcamo. Scientific Publication,
4. Microbiology, 1990. 4th Ed.B.D. Davis, R. Dulbeco, H.N. Eisen and H.S. Ginsberg and J.B. Lippincott Company.
5. Fundamental Principles of Bacteriology. 1994. A.J. Sake. Tata McGraw Hill. Laboratory Experiments in Microbiology.3rd ed. Brief Version.1992. T.R. Johnson and C.L. Case.Addision Wesley International Publications.PP 350.

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