

**SWAMI RAMAMNANDTEERTH MARATHWADA
UNIVERSITY, NANDED**
**Revised Practicals for B.Sc. I yr (I Sem) and Project
guidelines for B.Sc. IIIyr (VI sem) with effect from June
2011**

BTT 1 English & Communication skills (Practical)

1. Seminar (oral communication) on social /general topic on stage
2. Instant talk / writing on general topic
3. Group discussion
4. Personal interviews/ moc interviews
5. Various letter writing (Permission letter, scientific letters, institute visit report writing)
6. Reading novels/ books paragraph
7. Application/ Resume/ Biodata writing
8. News paper, TV, other media advertisement preparation and reading
9. Quiz/ MCQ test on communication skills
10. Translations mother tongue to English and vice versa.
11. Comprehension

BTT 2 Introduction to Biotechnology (Practical)

Students are expected to go on field study to reveal the applied areas of biotechnology, products and impact on society

1. Survey and report on commercial dairy products available in market
2. Survey and report on bio fertilizers, plant growth stimulators and supplements available in market
3. Survey and report on bio pesticides, and bio control agents available in market
4. Survey and report on genetically modified/hybrid crops seeds and vegetables
5. Survey and report on packaged products available in market
6. Survey and report on vaccination programme in India and vaccines in market
7. Survey and report antibiotics anti sera available in market
8. Survey and report of pathology lab and report on biotechnology in diagnosis
9. Survey and report diagnostic kits available in market
10. Survey and report on use of Biofuel (Biodiesel, biogas, ethanol, biomass, coal etc)
11. Visit and report on bio composting, biogas, wormy composting unit
12. Visit and report on plant tissue culture laboratory
13. Visit and report on local drinking and waste water treatment unit
14. Demonstration of alcohol production/solvent production
15. Visit and report on nearby distillery, winery industry
16. Visit and report on Biotechnology institutes and industries
17. Applicability, functions and principles of commonly used instruments like waterbath, dialysis unit, weighing balance, distillation apparatus etc.

BTT 3 Basic Biosciences (Practical)

1. Preparation of Potato dextrose agar and growth of any fungus
2. Study of T S of Monocot stem and root
3. Study of Dicot stem and root
4. Study of flower
5. Study of inflorescence
6. Study of fruits
7. Study of TS of anther and ovule
8. Use of vital stains to demonstrate using chick embryomodel
9. Study of extra embryonic membranes in chicks
10. Visit to a protected area of the state to understand and appreciate biodiversity
11. Observation of permanent slides of anther,ovule,embryosac, embryo and endosperm
12. Study of eukaryotic and prokaryotic cell structures.
13. Field visit.

Guidelines for B.Sc. Biotechnology III year(VI) Project(BTT12)

1. The projects will be allotted during VI semester
2. Students will design experiment of project
3. Selection of topic relevant to priority to areas of biotechnology
4. Collection of literature from various sources
5. Planning of research experiments
6. Performing the experiments with scientific and statistical analysis
7. Project writing
8. Presentation of experimental data
9. Project to be carried out individually or in group of maximum three