B.S.C. Botany (Colleges) prat. revised 2015-16 onwards

Annexure No: 19A

Page 1 of 4

Sca Dt: 10.06.2016

Bharathiar University:: Coimbatore- 641 046

B.Sc. Botany Degree Course (CBCS Pattern)

(revised practical for the students those who are admitted from the academic year 2015-16 & onwards)

Note: The revised practical for the following papers furnished below be followed and there is no change in the existing scheme of examination and syllabi of remaining papers.

Semester VI: Paper - XI 5Hrs/Week

Biophysics, Biochemistry and Plant Physiology

Unit - I
Biophysics: Electromagnetic radiation, Absorption and action spectra. Spectrophotometer (Basics) and Laws of thermodynamics (Basics)

Unit - II

Unit - III

Unit - IV

Unit - V
Growth regulators - auxins, gibberellins, Kinetins, ethylene and ABA. Physiology of flowering (Photoperiodism).

Practicals:
1. Rate of respiration in flower buds/germinated seeds using simple respiroscope (Demonstration Only)
2. Separation of leaf pigments by paper chromatography
3. Measurement of the rate of Photosynthesis under varying concentration of CO₂ concentration
4. Effect of Light intensity on $O_2$ evolution during photosynthesis.
5. Effect of light intensity on transpiration. Determining the rate of transpiration using Ganong’s potometer (Demonstration Only)

6. Qualitative analysis of Carbohydrate, lipid and Protein.

References:

- Plant Physiology-Salisbury and Ross.,Prantices Hall.,New Delhi
- Biophysics &Plant Physiology-A.Ragland.,Saras Publication.,Nagercoil., Tamil Nadu
- Plant Physiology-Devlin.,Affiliated East West.,New Delhi.,
- Introductory Plant Physiology-Noggle and Fritz., Prantices Hall.,New Delhi
- Biostatistics-P.Ramakrishnan., Saras Publication.,Nagercoil., Tamil Nadu
- Basics Biophysics for Biologist.,Danial M., Agrobios.Jodhpur
- Plant Physiology, A.Ragland et al, Saras Publication.,Nagercoil., Tamil Nadu
- Plant Physiology, S.Sundararajan.,Anmol Publications.,New Delhi.2
- Plant Physiology,Kumar&Purohit.,Agrobios, Jodhpur.
SEMESTER VI:

SKILL BASED SUBJECT : BIODEGRADABLE WASTE MANAGEMENT

PAPER – IV - PRACTICAL (4 Hours / Week)
(Covering theory papers I, II & III)

1. Determination of $p^H$ (Soil & Effluent)
2. Analysis of effluents of any one industry – Dissolved oxygen, free carbon dioxide, carbonate and bicarbonate, turbidity, total solids, dissolved solids, hardness, chloride & Calcium.
3. Sterilization technique. Autoclave & Hor air oven.
   
   (Eudrilus eugeniae, Eisenia foetida and Lampito mauritii).
6. Carbon cycle, Nitrogen cycle & Water cycle)
7. Demonstration of Laminar Air Flow Chamber & Inoculation needle

References :

BIODEGRADABLE WASTE MANGEMENT

Time: 3Hrs                                Max.Marks:45

1. Write the procedure and Requirements for estimating
   The chemical parameter of the given sample A. 10 Marks

2. Write the procedure and Requirements to calculate the parameter
   For the given sample  B 10 Marks

3. Write the method of isolating the micro organism from the sample C 5 Marks

4. Write notes on D,E,F,G&H 5x3=15 Marks

---

BIODEGRADABLE WASTE MANGEMENT

Time: 3Hrs                                Key                                Max.Marks:45

1. A- Major Experiment
   (Requirement-5,Procedure-5, Data Presentaion-5 Result-5) 10 Marks

2. B-Minor Experiment
   (Requirement-2, Procedure-2,Data Presentaion-3 Result-3) 10 Marks

3. C- Culture Technique (Diagram-1 Notes-4) 05 Marks

4. D - Sterilization technique
   E – Morphology of Earthworm
   F – Biogeochemical cycles
   G - Instruments used in Culture Technique
   H – Culture methods (Sketch&Notes-3) 5x3=15 Marks

---

Record             5 Marks

Total 45 Marks