

B. N. Bandodkar College of Science, Thane
S. Y. B. Sc. (Sem III) Examination 2014-15
Semester III October 2014

USBO303

Duration 2^{1/2} Hrs

Total Marks 75

- N.B. 1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Draw neat labelled diagrams wherever necessary.
- Q.1 a) Define volatile oils. Add a note on any two methods of extraction of volatile oil from plant material. 10
- OR
- a) Define Glycosides. Describe any two types of glycosides studied by you. 10
b) What are tannins? Discuss their properties and uses. 10
- OR
- b) What are alkaloids? Describe tropane type of alkaloids. 10
- Q.2 a) What are the different types of forests in India? Add a note on Tropical Wet Evergreen Forests. 10
- OR
- a) Describe the climatic conditions and the flora of Montane Wet Temperate Forests and Tropical Thorn Forests. 10
b) What is social forestry? Discuss Agro forestry and Community forestry in detail. 10
- OR
- b) What are the major forest products? Discuss Bamboo and Rattan with respect to forest products. 10
- Q.3 a) With reference to soil composition discuss various physical components of soil. 10
- OR
- a) Describe different forms of biotic and abiotic factors. 10
b) Describe soil as an edaphic factor. 10
- OR
- b) Describe the different layers in soil profile with the help of well labelled diagram. 10
- Q.4 Attempt **any three** of the following: 15
- a) Comment on chemical properties of volatile oils
b) Explain briefly indole alkaloids
c) Write a note on afforestation.
d) Discuss Gum as an example of minor forest product.
e) List the differences between clayey soil, sandy soil & loamy soil.
f) Write a note on various types of soil organisms.