

B.N.Bandodkar College of Science, Thane

F.Y.B.Sc. (Sem II) Examination 2013-14

Semester II

USBOT201

Duration 2 Hrs

Total Marks 60

- 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) Describe the ramentum and hydathode of *Nephrolepis*. 7
OR
a) Describe the structure of female sex organs in *Nephrolepis*. 7
b) Discuss amber and canada balsam as products of economic importance from gymnosperms. Add a note on use of gymnosperms in decorations and handicrafts. 8
OR
b) Describe the male cone of *Cycas*. 8
- Q.2 a) Discuss the structures and functions of stomata studied by you. 7
OR
a) Sketch and enlist the differences between internal structures of monocotyledonous and dicotyledonous stem. 7
b) Describe the internal structure of monocotyledonous root. 8
OR
b) Give an account of the epidermal tissue system in plants. 8
- Q.3 a) Explain the characters and one plant of importance from family Solanaceae. 7
OR
a) Explain the characters and one plant of importance from family Asteraceae. 7
b) Explain the characters and two plants of importance from family Malvaceae 8
OR
b) Explain the characters and two plants of importance from family Amaryllidaceae. 8
- Q.4 a) Answer any three of the following in one word/ sentence. 3
1. What is the function of stolons in *Nephrolepis*?
2. Name any two parts/ structures seen in the sorus of *Nephrolepis*.
3. Name any two species of *Cycas*.
4. Which cells provide strength and flexibility to the plant?
5. To which family does *Tamarindus indica* (Tamarind) belong to?
6. Describe arrangement of stamens in sub family Papilionaceae.
- b) Attempt any two of the following: 12
1. Give a brief account of prothallus of *Nephrolepis*.
2. Describe the seed of *Cycas*.
3. With reference to tissue systems, distinguish between monocot and dicot leaf.
4. Explain the morphological characters of sub family Caesalpinae.