

B.Sc. Semester - 6 (CBCS) Examination**April/May-2022 (OLD COURSE)****INSTRU.,AD.TECH.,FORESTRY, MEDI PLANT AND ECO. BOT(CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Q.1(A) Answer in very short (any three): (03)

1. What does a spectrophotometer directly measure?
2. Which instrument is use for cultivation/ growth of microorganism?
3. Name the technique in which solution is rotated in circles around a central axis.
4. Define: Sterilisation.
5. Which types of sterilization occur in oven?

Q.1(B) Answer in brief (any one): (04)

1. Explain: principle of spectrophotometer.
2. Describe the design and function of incubator.

Q.1(C) Answer in detail (any one): (07)

1. Write note on: Principle, design and application of oven
2. Explain: structure, methods of centrifugation and applications of ordinary centrifuge

Q.2(A) Answer in very short (any three): (03)

1. Complete the statement: Polymerase used for PCR is Extracted from?
2. True or false: In electrophoresis, the speed of migration of ion depends on the net charge, size, and shape of molecule.
3. Fill in the blank: In TLC the glass plate function as ____
4. What is retention time in GLC?
5. In which type of HPLC, the separating column is composed of non-polar materials and solvent is polar?

Q.2(B) Answer in brief (any one): (04)

1. Describe: Application of GLC.
2. Explain only Procedure of pigment separation by TLC.

Q.2(C) Answer in detail (any one): (07)

1. What is PCR? Explain steps involved to methods of PCR
2. Explain: The instrument setup and methods of Agarose gel electrophoresis.

Q.3(A) Answer in very short (any three): (03)

1. **Fill in the blank:** When tree or shrubs are grown around or among field crops is known as.....
2. In which area of India the giant evergreen forest is found?

3. **Complete statement:** the inner annual rings surrounding the central portion or core of a tree is___ wood.
4. Which of the following is the first biosphere reserve in India?
5. **Give the term:** The management of Forests for the benefits of local communities.
- Q.3(B) **Answer in brief (any one):** (04)
1. Describe location and main species of tropical thorn forests.
 2. Write notes on - Agroforestry
- Q.3(C) **Answer in detail (any one):** (07)
1. Explain: Physical properties and structural features of Wood.
 2. Write a tour report in Scientific way of tour of rich biodiversity region you visited.
- Q.4(A) **Answer in very short (any three):** (03)
1. Give the scientific name of Plant in which the Nimbidin is extracted from its seeds.
 2. **Complete the Statement:** Leaves of *Adhatoda* contains.....
 3. Give the scientific name which is important medicinal Plant of Rutaceae family studied by you.
 4. *Ashwagandha* belongs to which family?
 5. Which Flavonoids are present in Eucalyptus?
- Q.4(B) **Answer in brief (any one):** (04)
1. Discuss: medicinal importance of Tulsi.
 2. Write notes on: Aegale
- Q.4(C) **Answer in detail (any one):** (07)
1. Describe: Botanical Name, Family, Parts used and medicinal uses of *Nagod*.
 2. Write a detail account of medicinal plant - *Ardusi*
- Q.5(A) **Answer in very short (any three):** (03)
1. **True or False:** Clove oils are used in tooth paste.
 2. Which treatment is given by manufacturer to tea leaves for its flavour?
 3. Which cereal is shown as only Rabi crop in India studied by you?
 4. Give the scientific name of oil seeds, its fruits are underground?
 5. Write botanical name & Family of Green gram.
- Q.5(B) **Answer in brief (any one):** (04)
1. Write note on: Coffee.
 2. Explain: Methods of cultivation - Groundnut
- Q.5 (C) **Answer in detail (any one):** (07)
1. Give a general account, cultivation and uses of wheat.
 2. Give the general account of Cardamom.
