

B.Sc. Semester - 5 (CBCS) Examination
Oct/Nov - 2024 (NEW COURSE)
Instrumentation, Forest and Forestry(Core)

Time: 2:30 Hours**Marks: 70****Instructions:**

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

-
- Que.1(A) Answer in very short. (04)
1. True or False: In oven Thermal Death Period (TDP) and Thermal Death Time (TDT) are inversely proportional meaning as temperature increase as TDT decrease.
 2. Which type of Sterilization occurs in Autoclave?
 3. In which type of air flow the air moves in parallel layers or streams, without turbulence or mixing between Layers?
 4. Which instruments is used for separating and isolating particles, Cells or Molecules?
- Que.1(B) Answer in brief (Any one). (03)
1. Explain: Procedure to grow microbial culture in Incubator.
 2. Difference between: Hot Air Oven and Steam Sterilizer.
- Que.1(C) Answer in detail (Any one). (07)
1. Discuss: The component and procedure of Centrifuge.
 2. Explain: Principle of laminar air flow and differentiate horizontal & vertical laminar air flow.
- Que.2(A) Answer in very short. (04)
1. Give the term: An integrated system based on combining shrubs and trees with crops and/or livestock.
 2. True or False: Silviculture is deals with establishment, development, care and reproduction of strands of Timber.
 3. Fill in the blank: Endemic plants arising in the area due to mutations in the existing population of individuals are known as _____.
 4. Name a process where new forests are planted across land without tress.
- Que.2(B) Answer in brief (Any one). (03)
1. What is Deforestation? Discuss the ecological effects of Deforestation.
 2. Write notes on: Significance of Forest.
- Que.2(C) Answer in detail (Any one). (07)
1. What is Forest Management? Discuss social forestry and re-forestation as Management Programme.
 2. What is Endemism? Discuss forces operating for the formation of Endemic Plant.
- Que.3(A) Answer in very short. (04)
1. Name the Micro Technique that involves a thin, flat, and small object, does not require sectioning, and is mounted entirely.
 2. Name a process that causes the sudden death of cells and tissues, with their components preserved in Identical Conditions.
 3. What is Dealcoholization?
 4. Who introduced paraffin embedding in Microtomy?

- Que.3(B) Answer in brief (Any one). (03)
1. Explain: Technique for preservation of Algae in liquid preservatives.
 2. What is Teasing? Explain the teasing preparation.
- Que.3(C) Answer in detail (Any one). (07)
1. Give the differences between Smear and Squash Methods. Explain how to prepare the Smear Slide.
 2. What is Microtomy? Explain Pre-microtomy Process.
- Que.4(A) Answer in very short. (04)
1. True or false: Nutmeg and Mace are two different spices that comes from the same tree.
 2. Give the scientific name of Medicinal Plant studied by you which belongs to Solanaceae Family.
 3. Fill in the blank: The Oleoresin gum extracted from stem and rhizome of the _____ plant.
 4. In which type of conservation of medicinal plant give them safeguard from destruction outside their natural habitat?
- Que.4(B) Answer in brief (Any one). (03)
1. Name the Source of Saffron, mention the plant part from which they are obtained and discuss their uses.
 2. Writes notes on: Chemical Constituents of Tribulus Terrestris.
- Que.4(C) Answer in detail (Any one). (07)
1. What is Spices? Discuss the important spices obtained from fruits which are cultivated in Gujarat.
 2. Discuss: In situ conservation methods of Medicinal Plants.
- Que.5(A) Answer in very short. (04)
1. Name the operation in indoor gardening that involves transferring a plant from one pot to another of the same size.
 2. What is Mowing in Lawn?
 3. Define: Succession Cropping in Kitchen Garden.
 4. True or False: Turfing is slowest method of Lawn Making.
- Que.5(B) Answer in brief (Any one). (03)
1. What is Pot Mixture? Discuss various types of Pot Mixture for a particular type of plants.
 2. Write notes on: Kitchen Garden.
- Que.5(C) Answer in detail (Any one). (07)
1. Explain: Various methods for planting grass for Lawn Making.
 2. What is Gardening? Explain formal style of Garden with its merits and demerits.
