

B.Sc. Semester - 5 (Remedial) (CBCS) Examination
March/April-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.

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- Que-1 (A) Answer in very short. (04)
- (1) What does HEPA Filter Stand for in laminar air flow?
 - (2) Name the force that causes a substance spinning around an axis to move away from the centre.
 - (3) Give the term: The lowest temperature required to kill all the microorganisms when applied for a specific time.
 - (4) which instrument is used for cultivating/growing micro-organisms?
- Que-1 (B) Answer in brief (Any one). (03)
- (1) Difference between Vertical and Horizontal laminar air flow.
 - (2) Explain: Working principal of Hot air oven.
- Que-1 (C) Answer in details (Any one). (07)
- (1) Discuss the design of ordinary centrifuge and procedure of centrifugation.
 - (2) Explain principle and structure of Autoclave.
- Que-2 (A) Answer in very short. (04)
- (1) Name the process where new forests are planted across land without trees.
 - (2) Name the branch of science that deals with the development and utilization of forest culture.
 - (3) Give the term: If the species once inhabited multiple geographic regions but is now restricted to only one region.
 - (4) True or false: If new plants are planted in an existing forest after destroying the trees, it is called deforestation.
- Que-2 (B) Answer in brief (Any one). (03)
- (1) Explain: Ecological effects of Deforestation.
 - (2) Write notes on: Agroforestry.
- Que-2 (C) Answer in details (Any one). (07)
- (1) What is forest management? Discuss afforestation and reforestation programmes.
 - (2) What is endemism? Explain forces operating behind Endemism.
- Que-3 (A) Answer in very short. (04)
- (1) Name the process in which the tissue or specimen is enclosed in supporting medium using mould.
 - (2) True or false: During the process of clearing the alcohol makes the tissue transparent.
 - (3) In which process fluid tissues and soft tissues are prepared into thin film with the help of the edge of another slide?
 - (4) What is dehydration?
- Que-3 (B) Answer in brief (Any one). (03)
- (1) Discuss: Techniques for preservation of Algae.
 - (2) Write notes on: Whole mounting.
- Que-3 (C) Answer in details (Any one). (07)
- (1) What is microtomy? Discuss the staining and mounting processes in microtomy.
 - (2) What is squash method? Discuss the slide preparation through squash.

- Que-4 (A) Answer in very short. (04)
- (1) Give Scientific name of medicinal Plant studied by you which is belong to Solanaceae family.
 - (2) True or false: Conservation of medicinal plant can be accomplished by outside natural habitat is called In-situ conservation.
 - (3) Fill in the blank: _____ is the shelled, dried seed and _____ is the dried net like covering of shell of seed of Myristicaceae family.
 - (4) Give the scientific name of spice obtained from bark.
- Que-4 (B) Answer in brief (Any one). (03)
- (1) Write notes on: Chemical constituents *Aegle marmelos*.
 - (2) Name the source of saffron products, mention the plant part from which they are obtained and discuss their uses.
- Que-4 (C) Answer in details (Any one). (07)
- (1) Explain: Ex-situ conservation methods of medicinal plants.
 - (2) What are spices? Discuss the five important Spices obtained from fruits.
- Que-5 (A) Answer in very short. (04)
- (1) True or false: In Informal style of garden, the components are arranged in symmetric manner.
 - (2) What is succession cropping in kitchen garden.
 - (3) Name the component in indoor garden which is the miniature tree or shrub.
 - (4) In which process of lawn making is the cutting of grass required at a specific height to avoid the neglected appearance of the lawn?
- Que-5 (B) Answer in brief (Any one). (03)
- (1) Explain: Various methods of planting grass for lawn-making.
 - (2) Discuss the differences between Formal and informal style of gardening.
- Que-5 (C) Answer in details (Any one). (07)
- (1) Write an essay on various components of indoor gardening.
 - (2) What do you mean by kitchen garden? Provide additional notes on its importance to humans.
