

B.Sc. Semester - 6 (CBCS) Examination

Oct/Nov -2020

INSTRU.,AD.TECH.,FORESTRY, MEDI PLANT AND ECO. BOT (CORE)

Time: 2:00 Hours

Marks: 56

Instructions:

1. Figures to the right indicate marks.
2. There are five questions in the question paper.
3. Answer any four of the following questions.

Q – 1 Answer the following questions as per instruction.

- (A) Answer in very short. (Any three): (03)
1. Distinguish supernatant and pellet in centrifugation?
 2. Give the principle of Hot air oven.
 3. What is an Autoclave?
 4. True or False: Spectrophotometer is used to determine optical density of a solution.
 5. What is filled between two walls of Incubator?
- (B) Answer in brief (Any one) (04)
1. Explain design and use of oven in Biological laboratory.
 2. Write the functions of Autoclave.
- (C) Answer in detail (Any one) (07)
1. Describe structure and methods of Centrifugation.
 2. Explain: principle and components of spectrophotometer.

Q – 2 Answer the following questions as per instruction.

- (A) Answer in very short. (Any three): (03)
1. On what basis compounds of mixture are separated in TLC?
 2. What does GC apparatus consist?
 3. Which two types of media are used in Electrophoresis?
 4. At which temperature the DNA molecule of interest is denatured?
 5. From which bacteria DNA polymerase is isolated?
- (B) Answer in brief (Any one) (04)
1. Write notes on: Principle and applications of Gas chromatography.
 2. Explain: Methods of pigment separation by TLC.
- (C) Answer in detail (Any one) (07)
1. Discuss with diagram steps involved in PCR technique.
 2. Explain the structure of paper electrophoresis unit and separation methods of Amino acids.

Q – 3 Answer the following questions as per instruction.

- (A) Answer in very short. (Any three): (03)
1. Which type of forest is found in Alpin zone in India?
 2. Which is the biggest Biosphere reserve in India?
 3. Define the term: Non porous wood.
 4. Raising forests in waste lands by local people is called?
 5. Give the term: All organisms that grow or live wild in an area without being introduced by humans.
- (B) Answer in brief (Any one) (04)
1. Discuss the surface characteristics of wood.
 2. Give difference between: Social forestry and Agro forestry.
- (C) Answer in detail (Any one) (07)
1. What are Biosphere reserves? Discuss zones of it and significance.

2. What is littoral forest? Discuss the three type of littoral forest.

Q – 4 Answer the following questions as per instruction.

- (A) Answer in very short. (Any three): (03)
1. Which alkaloid is obtained from neem?
 2. How *Eucalyptus* oil is obtained?
 3. Give scientific name of medicinal plant yielding Gum.
 4. Which fruit is used in treatment of constipation?
 5. Fill in the blank: The drug “Vasaka” is obtained from the _____ Of _____
Belonging to family_____
- (B) Answer in brief (Any one) (04)
1. Discuss the medicinal plant-Ashwagandha in following points (i) Botanical name (ii) Family (iii) Distribution (iv) Uses.
 2. Explain phytochemistry and medicinal uses of “Tulsi”
- (C) Answer in detail (Any one) (07)
1. Give general account of medicinal plant Bili.
 2. Discuss the medicinal uses of any four plant leaves studied by you.

Q – 5 Answer the following questions as per instruction.

- (A) Answer in very short. (Any three): (03)
1. Name spice which is obtained from bark, write the botanical name and family in which this plant belongs.
 2. Give botanical name and family of the Coffee plant.
 3. Which family is known as pulse family?
 4. Fill the blank: Groundnut is usually raised as a _____ crop, sown from April to July.
 5. True or False: Paddy seeds are sown directly in the prepared main field.
- (B) Answer in brief (Any one) (04)
1. Differentiate between alcoholic and non – alcoholic beverages. Discuss main cultivation area of one non – alcoholic beverage plants.
 2. What is the main difference between dry paddy and wet paddy cultivation?
- (C) Answer in detail (Any one) (07)
1. Explain: cultivation of any two pulses studied by you.
 2. Describe one Oil yielding plant in following points:
(i) Botanical name, (ii) Family, (iii) Part used, (iv) Methods of cultivation
