

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 2289554

Roll No.

## B.TECH.

Regular Theory Examination (Odd Sem - V), 2016-17

### PLANT BIOTECHNOLOGY

Time : 3 Hours

Max. Marks : 100

#### Section - A

1. Attempt all sections. All sections carries equal marks.

(10×2=20)

- What do you mean by cryopreservation?
- What are Auxins?
- Give an idea about artificial seeds.
- What is Totipotency?
- What do you know about selection of media?
- Define slow growth cultures.
- What is immobilized cultures?
- Give difference between chemotherapy and cryotherapy?
- Define the term surface sterilization.
- What do you mean by inoculation of culture?

#### Section - B

Attempt any three questions from this section.

(3×10=30)

- What is Micro propagation? Explain under topics given below
  - Proliferation of axillary buds.
  - Somatic embryogenesis.
- Discuss in detail about the various methods of sub culturing.
- Give different methods for sterilization of media.
- What do you know about continuous culture?
- Discuss various requirements for a plant tissue culture lab in detail.

#### Section - C

Attempt all questions from this section. (5×10=50)

- What is genetic transformation? Discuss its advantages.
- Explain nutrient media? Discuss composition of commonly used nutrient media in detail.
- Define somaclonal variation? Briefly describe their isolation, characterization, molecular basis & applications.

## NBT-504

10. Give the advantages & limitations of micro propagation.
11. Discuss applications of plant tissue culture in industrial products?

