

Roll No.

Total No. of Pages :02

Total No. of Questions : 09

B.Sc.(BT) (2013 to 2017) (Sem.-5)
AGRICULTURAL BIOTECHNOLOGY
Subject Code :BSBT-307
Paper ID : [F0225]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt **ANY FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt **ANY TWO** questions.

SECTION-A

Q1. Answer briefly :

- a. Define Bioremediation.
- b. Define reporter genes.
- c. What is transient expression?
- d. What is the source of 35s promoter?
- e. What are degradative plasmids?
- f. What is T-DNA and where is it found?
- g. What are *nif* genes?
- h. What is “*Round up Maize*”?
- i. What is abiotic stress?
- j. What are biochips?

SECTION-B

- Q2. Discuss in brief the various kinds of bioherbicides.
- Q3. What are the steps required for developing transgenic plants?
- Q4. Why is *Agrobacterium* known as the natural plant engineer? Discuss.
- Q5. What modifications can be made to increase nitrogen fixing capabilities in plants?
- Q6. What are biosensors and give their types?

SECTION-C

- Q7. What is gene silencing and give the measures to overcome gene silencing?
- Q8. Discuss in detail the various kinds of Biofertilizers which could be used by farmers.
- Q9. Discuss in detail mechanism of Nitrogen fixation by both nitrogenase and hydrogenase systems.