

Roll No. ....

**3018**

**B. Tech. 3rd Semester (Bio-Tech.)  
Examination – December, 2022**

**BIOLOGY**

Paper : BSC-BIO-201-G

Time : Three hours ] Maximum Marks : 75

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt **five** questions in all, selecting **one** question from each Unit. Question No. 1 is **compulsory**. All questions carry equal marks.

1. Write the short note on following :  $2.5 \times 6 = 15$

- (a) Prokaryotic cell
- (b) Types of microbes
- (c) Meiosis
- (d) Fructose
- (e) Lipids
- (f) Ligases

P. T. O.

3018-2,350-(P-3)(Q-9)(22)

## **UNIT – I**

2. Explain the animal and plant cell in detail with suitable diagram. 15
3. Write notes on :  
(a) Evidence of nucleic acid as a genetic material  
(b) Central dogma 7.5 × 2 = 15

## **UNIT – II**

4. Write the notes on : 7.5 × 2 = 15

- (a) Structure and function of starch

- (b) Types of RNA

5. Describe the Watson and Crick model of DNA with suitable diagram. 15

## **UNIT – III**

6. Describe briefly the various tools used in recombinant DNA technology. 15

7. What are transgenic animals ? Explain the importance of transgenic animals. 15

3018-2,350-(P-3)(Q-9)(22)

( 2 )

## **UNIT – IV**

8. Discuss the applications of biotechnology in medicine and sewage treatment. 15
9. Write the notes on : 7.5 × 2 = 15  
(a) Enzyme technology  
(b) Role of biotech in agriculture

3018-2,350-(P-3)(Q-9)(22)

( 3 )