

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

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**UNIT – I**

2. Explain the animal and plant cell in detail with suitable diagram. 15

3. Write notes on : 7.5 × 2 = 15

- (a) Evidence of nucleic acid as a genetic material
- (b) Central dogma

**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

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**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

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