

Roll No. ....

**3018**

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

**BIOLOGY**

Paper : BSC-BIO-201C

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 :** Question No. 1 is compulsory and attempts four more questions by selecting one question from each Unit. All questions carry equal marks.

1. Write the short notes on the following : 2.5 × 6 = 15

- (a) Cell theory
- (b) Cell division
- (c) Adaptor and linker

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- (d) Golden rice
- (e) Central Dogma
- (f) Biological catalyst

**UNIT - I**

2. What are microorganisms ? Detail description of the economic importance of microorganisms for us. 15
3. Write the short note on any two : 7.5 × 2 = 15
  - (a) Evidence of DNA as genetic material
  - (b) Mendel's laws of inheritance
  - (c) Importance of biology for Engineers

**UNIT - II**

4. Write the short note on any two : 7.5 × 2 = 15
  - (a) Amino Acids
  - (b) Functions of RNA
  - (c) Structure of DNA
5. What are carbohydrates ? Describe their structure and functions in detail. 15

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**UNIT - III**

6. Write the short note on any two : 7.5 × 2 = 15
  - (a) Restriction enzymes
  - (b) Molecular vectors
  - (c) Transgenic animal
7. What are transgenic plants ? What is the importance of transgenic plants in the modern era of sciences ? 15

**UNIT - IV**

8. Write the short note on : 7.5 × 2 = 15
  - (a) Production and uses of enzymes
  - (b) Biotech in environment cleanliness
9. What is Biotechnology ? What are pre-requirements for biotechnology ? 15

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