

Roll No. ....

**3018**

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

**BIOLOGY**

Paper: BSC-BIO-201G

**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 :  $2.5 \times 6 = 15$

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

(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 :-

$7.5 \times 2 = 15$

(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 :-

$7.5 \times 2 = 15$

(a) Amino Acids

(b) Functions of RNA

(c) Structure of DNA

5. What are carbohydrates ? Describe their structure and functions in detail.

15

#### **UNIT - III**

6. Write the short note on any two :-

$7.5 \times 2 = 15$

(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

8. Write the short note on :-

(a) Production and uses of enzymes

(b) Biotech in environment cleanliness

#### **UNIT - IV**

9. What is Biotechnology ? What are pre-requirements for biotechnology ?

15