

Roll No.

3018

**B. Tech. 4th Semester (EE)
Examination – July, 2021**

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 Number 1 is compulsory. All questions carry equal marks.

1. Write the short notes on the following : $1.5 \times 10 = 15$

- (a) Father of biology
- (b) Central Dogma
- (c) Gene
- (d) Allele

- (e) Enzyme
- (f) Starch
- (g) Glycoprotein
- (h) Cholesterol
- (i) Clone
- (j) Golden rice

UNIT - I

2. What is biology ? Why should an engineer study biology ? 15

3. Write the short notes on any two : 7.5 × 2 = 15

- (a) Cell theory
- (b) Mendel's laws of inheritance
- (c) Economic importance of microorganism

UNIT - II

4. Write the short notes on any two : 7.5 × 2 = 15

- (a) Amino acids
- (b) Structure and function of lipids
- (c) Types and function of RNA

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5. What is nucleic acid ? Describe the Watson and Crick model of DNA in detail. 15

UNIT - III

6. Write the short notes on : 7.5 × 2 = 15

- (a) Restriction enzymes
- (b) Steps of gene cloning

7. What are the transgenic animals ? What is the importance of transgenic animals in modern era ? 15

UNIT - IV

8. Write the short notes on : 7.5 × 2 = 15

- (a) Enzyme technology
- (b) Role of biotech in medicine

9. What is Biotechnology ? What are pre-requirements for the biotechnology ? 15

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