

Exam. Code : 210001

Subject Code : 3778

**M.Sc. Botany 1<sup>st</sup> Semester**  
**THEORETICAL BIOLOGY**  
**Paper : BOT-C516**

Time Allowed—3 Hours] [Maximum Marks—50

**Note** :— Attempt **FIVE** questions in all selecting at least **ONE** question from each section. All questions carry equal marks.

**SECTION—A**

1. What are periodic functions ? Illustrate with the help of sine function. 10
2. Write the equation of a power function and illustrate its application. 10

**SECTION—B**

3. What is definite integral ? Elucidate the steps of derivation with a suitable example. 10
4. Elucidate the concept and derivation of second derivative. 10

**SECTION—C**

5. What is differentiation ? Illustrate the product and quotient rules of differentiation. 10

6. What is normal distribution ? Elucidate the parameters that define a given normal distribution. 10

**SECTION—D**

7. What is meant by one way ANOVA ? Elucidate the concept and steps of calculation and significance of the test with an example. 10
8. What is meant by simple linear regression ? Taking hypothetical data elucidate the steps of derivation of the equation. 10