

Paper Id:

910043

Roll No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

BTECH
(SEM-I) THEORY EXAMINATION 2019-20
REMEDIAL BIOLOGY

Time: 3 Hours**Total Marks: 100****Note:** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

- 1. Attempt all parts. Each part carries equal marks: (2X10=20)**
- What is biology? Give the characteristics of living organisms.
 - What do you understand by viroids?
 - Explain the term "Biodiversity".
 - What is a binomial system of nomenclature?
 - Differentiate between mitosis and meiosis.
 - Who proposed the fluid mosaic model of plasma membrane?
 - Differentiate between plants and animals.
 - Name any three branches of botany and discuss what you study in each branch?
 - Differentiate between cell wall and cell membrane.
 - Mention salient features of Zoological parks.

SECTION B

- 2. Note: Attempt any three question from this section (10x3=30)**
- Draw a well labeled diagram of a seed of your choice to show its different parts.
 - Discuss different types of modifications in root. Also give various types of edible roots.
 - Briefly describe the cell theory.
 - Draw a labeled diagram of a typical plant cell as observed in electron microscope. Describe the function of any four of the cell organelles found in it.
 - Explain basic chemical constituents of living bodies.

SECTION- C

- 3. Attempt any one part of the following: (10x1=10)**
- Discuss the cell as a unit of structure and function.
 - What do you understand by Lichens? Discuss with suitable example.
- 4. Attempt any one part of the following: (10x1=10)**
- What is photosynthesis? Explain the mechanism of C4 pathway.
 - "Protoplasm as a highly complex structure". Illustrate in detail.
- 5. Attempt any one part of the following: (10x1=10)**
- What is the significance of meiosis in the life cycle of plants? How it differs from mitosis?
Write the functions of the following:
 - Mitochondria.
 - Nucleus.
- 6. Attempt any one part of the following: (10x1=10)**
- Write a short note on five kingdom classification proposed by R.H. Whittaker.
 - What is plant physiology? What is the aim of the study of plant physiology?
- 7. Attempt any one part of the following: (10x1=10)**
- Write a note on 'respiratory quotient'. How it is varies with substrate?
 - Differentiate between structural and functional features of prokaryotic and eukaryotic cells.