Code No: 09A1BS06 **R09** **Set No. 2**

I B.Tech Examinations,June 2011
FUNDAMENTALS OF BIOLOGY
Bio-Technology

Time: 3 hours **Max Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

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1. Name any three microbial enzymes which are used in large scale industry.Explain each. [15]
2. Explain the different type of muscular tissues. [15]
3. Discuss the following
   (a) chlorophylls
   (b) carotenoids
   (c) phycobilins. [5+5+5]
4. Give an account on physiology of vision. [15]
5. What are the plants which are included in Chlorophyta? Describe their general characteristics and give examples. [15]
6. (a) Discuss about any one Protozoan parasite that causes disease in humans.
   (b) Briefly explain about the life cycle of Ascaris worm. [9+6]
7. Explain the significance of Griffith's initial experiments on Transformation. What was the conclusion of this experiment. [15]
8. Write an account on general characteristics of viruses and how they are classified on the basis of their genome? [15]

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Code No: 09A1BS06 **R09** **Set No. 4**

I B.Tech Examinations,June 2011
FUNDAMENTALS OF BIOLOGY
Bio-Technology

Time: 3 hours **Max Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

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1. Describe the mechanism of CO_2 fixation in CAM plants. [15]
2. Explain the technical and economic advantages in the use of microbial enzymes. [15]
3. Describe the anatomy of lungs. Describe physiology of respiration. [15]
4. Describe in detail the morphology and life cycle of Fasiotopsis buski . [15]
5. What are DNA dependent RNA polymerases? Explain their functional role during the synthesis of the complementary strand. [15]
6. (a) Write about the medicinal importance of plants.
   (b) Discuss the industrial products derived from plants. [8+7]
7. (a) Write about the historical landmarks in the attempt to classify living world.
   (b) Write briefly with illustrations on Bacterial reproduction. [8+7]
8. Discuss the following
   (a) Common physical parameters used to describe a sound wave.
   (b) Sequence of events involved in hearing. [6+9]

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Code No: 09A1BS06 **R09** **Set No. 1**

I B.Tech Examinations,June 2011
FUNDAMENTALS OF BIOLOGY
Bio-Technology

Time: 3 hours **Max Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

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1. Explain cyclic photo phosphorylation. [15]
2. Write short notes on:
   (a) Structure of human eye
   (b) Organs of corti
   (c) Biological importance of olfaction
   (d) Mechanism of Taste sensation. [15]
3. Write brief notes about:
   (a) Nitrogenous bases in DNA
   (b) Differences between DNA and RNA. [7+8]
4. What is meant by adaptation by an organism? Describe the adaptation made by an animal to aquatic life. [15]
5. Write short notes on any TWO of the following:
   (a) Biofuels
   (b) Opsonisation
   (c) Human therapeutics. [7+8]
6. List the pests that damage Rice crops in our country and explain the kind of damage done to affect the crop output. [15]
7. What is the term Protists used to indicate? Why is the term Protist inconsistent with classification based on Evolutionary principles? [15]
8. Describe the mechanism of coagulation of blood. What are anticoagulants and name the few of them. [15]

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Code No: 09A1BS06 **R09** **Set No. 3**

I B.Tech Examinations,June 2011
FUNDAMENTALS OF BIOLOGY
Bio-Technology

Time: 3 hours **Max Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

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1. What is synapse? How it can be classified? Explain them in detail. [15]
2. Explain how nature creates barriers between species which have isolated themselves in geographical niches? [15]
3. (a) Discuss in brief the asexual reproduction in Fungi.
   (b) Write about the importance of Diatoms. [8+7]
4. Name the reaction centers of PS - I and PS - II and explain their mode of action. Give an account on its function. [15]
5. Write short notes on any TWO of the following:
   (a) Microbial enzymes
   (b) SCP
   (c) Gene therapy. [7+8]
6. Describe the various culture media and growth regulators used for micropropagation. [15]
7. Explain about the processes taking place during an mRNA synthesis from a dsDNA. [15]
8. Write short notes on
   (a) Ribosome
   (b) Vacuoles
   (c) Plasma membrane. [5+5+5]

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