

(DBT01)

Total No. of Questions : 10]

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P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2017

BIO-TECHNOLOGY

Microbiology and Immunology

Time : 3 Hours

Maximum Marks : 70

*Answer any Five questions from the following
All questions carry equal marks*

- Q1)** Describe the ultra-structure and morphology of Bacteria.
- Q2)** Describe the general characters of Yeasts and Archaeobacteria.
- Q3)** Explain the growth and growth kinetics of Bacteria.
- Q4)** Describe the methods of sterilization.
- Q5)** Write an account on pure culture techniques.
- Q6)** Describe the metabolism in heterotrophic Bacteria.
- Q7)** Describe the antigen and antibody reactions.
- Q8)** Enumerate the types of immunity.
- Q9)** Describe the production of Vaccines.
- Q10)** Write an account on Autoimmunity.



(DBT02)

Total No. of Questions : 10]

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P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2017

BIO-TECHNOLOGY

Biochemistry and Molecular Biology

Time : 3 Hours

Maximum Marks : 70

*Answer any Five questions from the following
All questions carry equal marks*

- Q1)** Describe the structure and functions of Amino acids.
- Q2)** Write an account on the structure and functions Nucleic acids.
- Q3)** Explain the fatty acid metabolism.
- Q4)** Describe the Cholesterol metabolism.
- Q5)** Write an account on amino-acid metabolism.
- Q6)** Describe the biosynthesis of Pyrimidines.
- Q7)** Describe the replication of DNA.
- Q8)** Describe Watson and Crick model of DNA.
- Q9)** Explain the regulation of gene expression.
- Q10)** Write an account on Genetic code and translation.



(DBT03)

Total No. of Questions : 10]

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P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2017

BIO-TECHNOLOGY

Plant and Animal Tissue Culture and Genetic Engg.

Time : 3 Hours

Maximum Marks : 70

*Answer any Five questions from the following
All questions carry equal marks*

- Q1)** Describe the media preparation and sterilization.
- Q2)** Write an account on Bergman's plating technique.
- Q3)** Explain the cellular totipotency.
- Q4)** Describe the production of haploids.
- Q5)** Write an account on the biology of cells in culture.
- Q6)** Describe the types of mammalian cell cultures.
- Q7)** Describe the cell growth and cell transformation.
- Q8)** Describe stem cell culture and its applications.
- Q9)** Describe the enzymes used in genetic engineering.
- Q10)** Write an account on expression of cloned genes and gene therapy.



(DBT04)

Total No. of Questions : 10]

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P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2017

BIO-TECHNOLOGY

Applications of Biotechnology

Time : 3 Hours

Maximum Marks : 70

*Answer any Five questions from the following
All questions carry equal marks*

- Q1)** Describe the methods of isolation and improvement of industrially important microbes.
- Q2)** Write an account on methods of preservation of important microbes.
- Q3)** Describe fermentative production of gluconic acid.
- Q4)** Describe the production of acetone.
- Q5)** Write an account on Biosensors and their applications in biotechnology.
- Q6)** Describe the brewing of enzymes.
- Q7)** Describe the production of tetracycline and its application.
- Q8)** Describe the production of Cephalosporin and its applications.
- Q9)** Describe the production of Somatostatin and its uses.
- Q10)** Write an account on transgenic animals.

