

(DBT01)

Total No. of Questions : 10]

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P.G. DIPLOMA DEGREE EXAMINATION, DECEMBER – 2018

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 morphology and ultra structure of Bacteria.
- Q2)** Describe the general features of Photosynthetic Bacteria.
- Q3)** Describe the growth and growth kinetics of Bacteria.
- Q4)** Write an account on gene transfer mechanisms.
- Q5)** Explain the metabolism of Heterotrophic bacteria.
- Q6)** Describe the antigen and antibody reactions.
- Q7)** Write an account on the types of Immunity.
- Q8)** Describe the role of microorganisms in Nitrogen cycle.
- Q9)** Describe the production of Monoclonal antibodies.
- Q10)** Write an account on Vaccines.



(DBT02)

Total No. of Questions : 10]

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PG DIPLOMA DEGREE EXAMINATION, DECEMBER – 2018

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 glycogen metabolism and its significance.

Q2) Write an account on the fatty acid metabolism.

Q3) Describe the amino acid metabolism.

Q4) Write an account on the biosynthesis of Pyrimidines and their catabolism.

Q5) Describe the structure and functions Vitamins.

Q6) Describe the structure and functions of carbohydrates.

Q7) Write an account on the DNA repair and Transcription.

Q8) Describe Watson and crick model of DNA.

Q9) Describe genetic code and translation.

Q10) Describe various types of mutations and their significance.



(DBT03)

Total No. of Questions : 10]

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PG DIPLOMA DEGREE EXAMINATION, DECEMBER – 2018

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 initiation and maintenance of callus suspension cultures.
- Q2)** Write an account on single cell culture.
- Q3)** Explain clonal cell propagation and meristem culture.
- Q4)** Write an account on culture and fusion.
- Q5)** Describe the constituents of culture medium.
- Q6)** Describe the sources of material for cell culture and maintenance.
- Q7)** Write an account cell synchronization and cell growth.
- Q8)** Describe in vivo fertilization and embryo transfer.
- Q9)** Describe vectors and their uses.
- Q10)** Write an account on gene therapy.



(DBT04)

Total No. of Questions : 10]

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P.G. DIPLOMA DEGREE EXAMINATION, DECEMBER – 2018

BIO-TECHNOLOGY

Applications of Biotechnology

Time : 3 Hours

Maximum Marks :70

Answer any FIVE questions from the following.

All questions carry equal marks.

- Q1)** Write an account on isolation and preservation of microorganisms.
- Q2)** Describe maintenance and improvement of industrially important microbes.
- Q3)** Describe the methods of immobilization of Vitamins.
- Q4)** Write an account on Biosensors and their applications in biotechnology.
- Q5)** Describe the production of streptomycin and its uses.
- Q6)** Describe the production of tetracycline and its applications.
- Q7)** Describe the fermentative production of citric acid.
- Q8)** Describe production of Butanol.
- Q9)** Write an account on transgenic animals and their applications.
- Q10)** Explain the production of Hepatitis-B vaccine through genetically engineered microbes.

