(DBI01)

ASSIGNMENT - 1

P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2019

BIO-INFORMATICS

Principles of Cell & Molecular Biology & Bioinformatics

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

Q1) Describe the structure and functions of Nucleous.

Q2) Describe the structure and functions of Endoplasmic reticulum.

Q3) Explain cell cycle and its significance.

Q4) Describe mitosis and its importance with well labeled diagrams.

Q5) Describe the various types of genes and their importance.

(DBI01)

ASSIGNMENT - 2

P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2019

BIO-INFORMATICS

Principles of Cell & Molecular Biology & Bioinformatics

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

Q1) Explain genome organization and its functions.

Q2) Describe genetic recombination and its importance.

Q3) Describe various types of mutations and their significance.

Q4) Enumerate knowledge based data base and its usage.

Q5) Explain the scope of Bioinformatics in molecular biology.

(DBI02)

ASSIGNMENT - 1

PG DIPLOMA DEGREE EXAMINATION, MAY – 2019
BIO-INFORMATICS
Numerical Methods, Optimization Techniques & Computer Programming

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Explain parallel verses sequential computing.

Q2) Describe inherent parallelism in biological phenomenon and their models.

Q3) Write an account on generation of Computers and its significance.

Q4) Describe operating systems, internal and external coordinate systems.

Q5) Explain numerical methods and their importance.

(DBI02)

ASSIGNMENT - 2

PG DIPLOMA DEGREE EXAMINATION, MAY – 2019
BIO-INFORMATICS
Numerical Methods, Optimization Techniques & Computer Programming

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Write an account on optimization methods and their significance.

Q2) Explain Randomized minimization techniques in computer programming.

Q3) Enumerate Fourier transform of discretely sampled data.

Q4) Explain programming with HTML with suitable examples.

Q5) Write an account on designing of web pages and their importance.

(DBI03)

ASSIGNMENT - 1

P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2019

BIO-INFORMATICS

Database Management & Biological Data Banks Molecular Designing

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Describe Biological Data Banks and their importance.

Q2) Explain information processing challenges.

Q3) Describe metabolic pathway data banks.

Q4) Explain genomic Data banks with examples.

Q5) Describe Gene Bank Data Model and its applications.

(DBI03)

ASSIGNMENT -2

P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2019

BIO-INFORMATICS

Database Management & Biological Data Banks Molecular Designing

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Explain PDB data model and its importance.

Q2) Describe secondary and Tertiary structure of proteins.

Q3) Explain primary and tertiary structure of RNA.

Q4) Describe the structure prediction of Biopolymers and Optimisation.

Q5) Explain phylogenetic analysis of molecular modeling.

(DBI04)

ASSIGNMENT - 1

P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2019
BIO-INFORMATICS
Genomic and Proteomics and Sequencing Analysis

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Describe the organization of eukaryotic genomes.

Q2) Describe the organization of Viral genomes.

Q3) Explain genome projects and their importance.

Q4) Describe the nature of genetic code.

Q5) Explain Ramachandran plot and its importance.

(DBI04)

ASSIGNMENT - 2

P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2019
BIO-INFORMATICS
Genomic and Proteomics and Sequencing Analysis

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Describe protein purification and degeneration.

Q2) Explain predictive methods using DNA sequences.

Q3) Write an account on drug designing and delivery.

Q4) Describe the basics of genetic engineering.

Q5) Describe the methods of cell culture techniques.