ASSIGNMENT-1
P.G. DIPLOMA DEGREE EXAMINATION,
JUNE/JULY - 2020
BIO-INFORMATICS
Principles of Cell & Molecular Biology & Bioinformatics
Maximum : 30 MARKS
Answer ALL Questions

Q1) Describe the diversity of cell size and shape.

Q2) Describe the structure and functions of Mitochondria.

Q3) Explain the genome structure and its functions.

Q4) Explain the cell division meiosis and its significance.

Q5) Describe the development of Molecular biology and its importance.

ASSIGNMENT-2
P.G. DIPLOMA DEGREE EXAMINATION,
JUNE/JULY - 2020
BIO-INFORMATICS
Principles of Cell & Molecular Biology & Bioinformatics
Maximum : 30 MARKS
Answer ALL Questions

Q1) Write an account on gene discovery and genetic code.

Q2) Explain DNA repair mechanisms.

Q3) Write an account on mutations.

Q4) Explain the challenges in information processing and knowledge based data analysis.

Q5) Describe the applications of drug discovery.

ASSIGNMENT-1
P.G. DIPLOMA DEGREE EXAMINATION,
JUNE/JULY - 2020
BIO-INFORMATICS
Numerical Methods, Optimization Tech. & Computer Pro.
Maximum : 30 MARKS
Answer ALL Questions

Q1) Write an account on parallel computers and their development.

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

Q3) Explain the system software and its applications in biology.

Q4) Explain the internal and external coordinate system.

Q5) Describe the numerical methods and their importance in Bioinformatics.

ASSIGNMENT-2
P.G. DIPLOMA DEGREE EXAMINATION,
JUNE/JULY - 2020
BIO-INFORMATICS
Numerical Methods, Optimization Tech. & Computer Pro.
Maximum : 30 MARKS
Answer ALL Questions

Q1) Explain the methods of optimization and their significance in biology.

Q2) Describe Randomized minimisation techniques and their applications in bioinformatics.

Q3) Write an account on Fast Fourier Transform and its importance.

Q4) Write an account on Programming with C and its significance.

Q5) Describe the designing of Web pages and their use in bioinformatics.

ASSIGNMENT-1
P.G. DIPLOMA DEGREE EXAMINATION,
JUNE/JULY – 2020
BIO-INFORMATICS
Database Management & Biological Data Banks
Molecular Designing
Maximum : 30 MARKS
Answer ALL Questions

Q1) Explain the tools of bioinformatics and their individual significance.

Q2) Explain the Biological Data banks and their importance.

Q3) Explain the structural Data banks and their uses.

Q4) Describe the metabolic pathway data banks.

Q5) Describe the microbial data banks and their significance.

ASSIGNMENT-2
P.G. DIPLOMA DEGREE EXAMINATION,
JUNE/JULY - 2020
BIO-INFORMATICS
Database Management & Biological Data Banks
Molecular Designing
Maximum : 30 MARKS
Answer ALL Questions

Q1) Describe the gene bank data model with examples.

Q2) Describe the primary structure of proteins.

Q3) Write an account on DNA primary and secondary structure.

Q4) Explain molecular modelling and simulation studies.

Q5) Explain the structure prediction of biopolymers and their optimisation.

ASSIGNMENT-1
P.G. DIPLOMA DEGREE EXAMINATION,
JUNE/JULY - 2020
BIO-INFORMATICS
Genomic and Proteomics and Sequencing Analysis
Maximum : 30 MARKS
Answer ALL Questions

Q1) Describe the organisation of prokaryotic genomes.

Q2) Describe the structure and function of organellar   genomes.

Q3) Explain the nature of genetic code and its importance.

Q4) Write an account on micro arrays.

Q5) Describe the diversity and structure of proteins.

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P.G. DIPLOMA DEGREE EXAMINATION,
JUNE/JULY - 2020
BIO-INFORMATICS
Genomic and Proteomics and Sequencing Analysis
Maximum : 30 MARKS
Answer ALL Questions

Q1) Describe protein purification and degradation.

Q2) Write an account on site directed mutagenesis.

Q3) Describe automated DNA sequence.

Q4) Explain pair wise and multiple sequence alignment.

Q5) Describe predictive methods using DNA sequences.

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