ASSIGNMENT - 1

P.G. DIPLOMA EXAMINATION, MARCH 2023.

Bio-Informatics

PRINCIPLES OF CELL AND MOLECULAR BIOLOGY AND BIOINFORMATIC

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

1.   Explain the principles of cell biology.

2.   Describe the structure and functions of mitochondria.

3.   Describe the various stages in Mitosis and its significance.

4.   Explain the genome structure, organisation and functions.

5.   Describe the discovery gene and its significance.

ASSIGNMENT – 2

P.G. DIPLOMA EXAMINATION, MARCH 2023.

Bio-Informatics

PRINCIPLES OF CELL AND MOLECULAR BIOLOGY AND BIOINFORMATIC

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

1.   Explain that the DNA as the genetic material.

2.   Write an account on the Mutations and their significances.

3.   Describe the DNA repair mechanisms and its importance.

4.   Describe the scope of Bio informatics in Molecular Biology.

5.   Write an account on the Applications of Drug discovery.

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ASSIGNMENT - 1

P.G. DIPLOMA EXAMINATION, MARCH 2023.

Bio-Informatics

NUMERICAL METHODS,OPTIMIZATION TECH. AND COMPUTER PRO.

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

1. Write an account on the Parallel computers

2. Describe inherent parallelism in physical and biological phenomenon and their models.

3. Describe the generation of computers and their significance.

4. Explain operating systems and their importance.

5. Describe the numerical methods and their significance.

ASSIGNMENT - 2

P.G. DIPLOMA EXAMINATION, MARCH 2023.

Bio-Informatics

NUMERICAL METHODS,OPTIMIZATION TECH. AND COMPUTER PRO.

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

1. Explain the errors involved in the construction of mathematical models for the real physical processes.

2. Write an account on Randomized minimization techniques.

3. Explain Fast Fourier Transform with suitable examples.

4. Describe the programming with HTML and DHTML with examples.

5. Describe the Designing of web pages with your own examples.

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ASSIGNMENT - 1

P.G. DIPLOMA EXAMINATION, MARCH 2023.

Bio-Informatics

DATABASE MANA. AND BIOLOGICAL DATA BANKS MOLE. DESI.
MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

1. Describe the Tools in Bioinformatics and their uses.

2. Explain Biological Data Banks and their significance.

3. Write an account on Genomic Data Banks and their importance.

4. Describe the Microbial Data Banks and their significance.

5. Explain the gene Bank Data Models and their importance.

ASSIGNMENT – 2

P.G. DIPLOMA EXAMINATION, MARCH 2023.

Bio-Informatics

DATABASE MANA. AND BIOLOGICAL DATA BANKS MOLE. DESI.
MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

1. Describe the PDB Data Models and their significance

2. Describe Primary and secondary structure of Proteins.

3. Explain the Primary, secondary and tertiary structures of DNA.

4. Describe the molecular modeling and simulation structures.

5. Explain the structure prediction of biopolymers and optimization.

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ASSIGNMENT - 1

P.G. DIPLOMA EXAMINATION, MARCH 2023.

Bio-Informatics

GENOMIC AND PROTEOMICS AND SEQUENCING ANALYSIS
MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

1. Describe the organization of genomes in Prokaryotic organisms.

2. Describe Linkage and Crossing over with examples.

3. Write an account on the nature of genetic code and its significance.

4. Describe the Micro arrays and their importance.

5. Explain the sequential alignment, - pair wise and multiple.

ASSIGNMENT – 2

P.G. DIPLOMA EXAMINATION, MARCH 2023.

Bio-Informatics

GENOMIC AND PROTEOMICS AND SEQUENCING ANALYSIS
MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

1.   Write an account on Drug design and delivery

2.   Describe the discovery of Proteins and protein structure.

3.   Explain Ramachandran Plot and its significance.

4.   Write an account on site Directed Mutagenesis.

5.   Describe cell culture techniques and its importance.

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