(DBI01)

Assignment-I

P.G. DIPLOMA EXAMINATION, june 2022.

First Year

Bio-Informatics

PRINCIPLES OF CELL AND MOLECULAR BIOLOGY AND BIOINFORMATIC
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Describe the structure and function of chloroplast.
2. Explain the cell theory.
3. Write essay on different stages of mitosis.
4. Explain the genome organization and function.
5. Describe the genetic code and their importance.

(DBI01)

Assignment-2

P.G. DIPLOMA EXAMINATION, june 2022.

First Year

Bio-Informatics

PRINCIPLES OF CELL AND MOLECULAR BIOLOGY AND BIOINFORMATIC
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Explain the molecular biology and their importance.
2. Write an essay on DNA replication.
3. Explain the Transcription mechanism.
4. Explain the scope of bioinformatics.
5. Write an essay on knowledge based data analysis.

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(DBI 02)

Assignment-I

P.G. DIPLOMA EXAMINATION, june 2022.

First Year

Bio-Informatics

NUMERICAL METHODS, OPTIMIZATION TECH. AND COMPUTER PRO.
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Describe what are parallel computers and their importance.
2. Explain the parallel versus sequential computing.
3. Write an account on Operating systems and its importance.
4. Describe internal and external coordinate systems and their significance.
5. Explain numerical methods and their importance.

(DBI 02)

Assignment-2

P.G. DIPLOMA EXAMINATION, june 2022.

First Year

Bio-Informatics

NUMERICAL METHODS, OPTIMIZATION TECH. AND COMPUTER PRO.
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Describe the errors involved in the construction of mathematical model for the real physical processes.

2. Explain Randomized minimization techniques in computer programming.

3. Describe, optimization and Fourier transform of discretely sampled data and its significance,

4. Explain programming with DHTML and HTML and its importance.

5. Describe designing of Web pages and their significance with examples.

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(DBI 03)

Assignment-I

P.G. DIPLOMA EXAMINATION june 2022

First Year

Bio-informatics

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

1. Describe Biological Data Banks and their importance.
2. Explain the information processing challenges.
3. Write an account on Genomic Data bases and their importance.
4. Describe Microbial Data banks and their importance.
5. Explain Gene Bank Data model and PDB Data model with examples.

(DBI 03)

Assignment-2

P.G. DIPLOMA EXAMINATION june 2022

First Year

Bio-informatics

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

1. Describe the DDBJ Data model and its importance.
2. Explain the secondary structure of Proteins and its role in molecular designing.
3. Describe, the tertiary structure of RNA and its role in Bioinformatics.
4. Describe the structure prediction of biopolymers and optimization.
5. Explain molecular modelling and simulation studies.

(DBI 04)

Assignment-I

P.G. DIPLOMA EXAMINATION june 2022

First Year

Bio-informatics

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

1. Describe the organization of Eukaryotic genomes.
2. Describe the structure and functions of organellar genomes.
3. Describe the nature of genetic code and its importance.
4. Write an account on Genome projects and their significance.
5. Explain protein purification and degradation.

(DBI 04)

Assignment-2

P.G. DIPLOMA EXAMINATION june 2022

First Year

Bio-informatics

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

1. Describe protein trafficking and its significance.
2. Explain Predictive methods using DNA sequences.
3. Write an account on, drug design and delivery,
4. Write an account on the basics of genetic engineering.
5. Explain Automated DNA sequence and Bioethics.

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