2504E0092   Candidate's Seat No :_____

M.Phil. Science Examination
Paper-1
Bioinformatics

Time : 2-30 Hours]   April 2019   [Max. Marks : 70

1. Write detailed note on newer technologies for life on earth.   (14 marks)

OR

1. Write detailed note on Advances in Biology at the computer age.   (14 marks)

2. Define plagiarism and Give example of anti-plagiarism software.   (14 marks)

OR

2. Elaborate References and related software.   (14 marks)

3. Write a note on steps in writing a research proposal   (14 marks)

OR

3. Elaborate. The practice of peer review in scientific research.

4. What is technology evaluation? Discuss its importance in Organization's view.   (14 marks)

OR

4. Explain Intellectual property rights and its role in research.   (14 marks)

5. Write brief notes on   (14 marks)
    a) What is Biosafety?
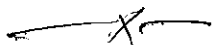   b) Proof reading in scientific research
    c) Give the role of review of literature studies in scientific research.
    d) Hypothesis Testing
    e) Role of ethical committee in Scientific research.
    f) Significance of Report Writing.
    g) Distinguish between an experiment and survey.

2604E0112   Candidate's Seat No :_____

M.Phil. Science Examination
Paper-2
Bioinformatics

Time : 2-30 Hours]   April 2019   [Max. Marks : 70

1. What are the challenges offered by biology to solve it in computing environment?   (14 marks)

OR

1. Give a note on the various applications of Bioinformatics in Molecular diagnostics.

(14 marks)

2. Write a note on Sequence Alignment methods.   (14 marks)

OR

2. How the bioinformatics resources are employed in proteomics studies?   (14 marks)

3. Explain filters and pipes in Linux.   (14 marks)

OR

3. Give note on various Operating Systems.   (14 marks)

4. Write a note on various Biological databases.   (14 marks)
OR

4. Write a note on various Data base management systems.   (14 marks)
5. Write brief notes on   (14 marks)
   a) Explain Bioinformatics is multidisciplinary.
   b) file commands in linux.
   c) Define. Central dogma of life.
   d) Define. Linux kernel
   e) Define. ER diagram.
   f) Text editor in linux
   g) "chmod command in linux

2904E0131   Candidate's Seat No :_____

M.Phil. Science Examination
Paper-3
Bioinformatics

Time : 2-30 Hours]   April 2019   [Max. Marks : 70

1. Give brief note on computer aided drug discovery process.   (14 marks)

OR

1. How to measure software effectiveness? How to check its reliability?   (14 marks)

2. Define Molecular Docking and explain related software.   (14 marks)

OR

2. Elaborate the applications of software in Biological world.   (14 marks)

3. Write brief note on various methods for homology modeling studies.   (14 marks)

OR

3. Give a note on Microarray technology.   (14 marks)

4. Write a note on Molecular Dynamics studies.   (14 marks)

OR

4. Applications of Bioinformatics in Cancer Research.   (14 marks)

5. Write brief notes on   (14 marks)
   a) Genome databases.
   b) Define Phylogenesis.
   c) Molecular dynamics studies applications.
   d) EMBL.
   e) TCGA
   f) BLAST
   g) KEGG