

Syllabus for Computational Biology and Bioinformatics Track 2(SCPH31)

Note:

- i. There will be one Question Paper which will have 100 questions.
- ii. All questions will be compulsory.
- iii. The Question Paper will have two Parts i.e. Part A and Part B
- iv. Part A will have 50 questions based on Research Methodology
- v. Part B will have 50 questions based on Subject-Specific Knowledge.

❖ Part A:

General Reasoning

this part of the question paper is to assess the analytical and quantitative skills of the students acquired throughout their academic career.

❖ Part B:

Track 2: Bioinformatics, Life Sciences

Life Sciences/Biotechnology Biomolecules & Cellular Organization

Fundamental Processes, Basic Concepts in Genetics & Immunology, Developmental Processes, Genome Structure & Organization, Gene Expression and Regulation, Basic Techniques in Molecular Biology and Recombinant DNA Technology.

Bioinformatics

Sequence analysis and alignment algorithms, Phylogenetic Analysis, Databases, Sequencing Technologies, Structural Bioinformatics, Concepts in sequence analysis, Genomics and Transcriptomics, Sequencing methods, Sequence formats, Methods of gene expression profiling, Genetic/epigenetic variations.