



Department of Genetic Engineering and Biotechnology
Faculty of Health and Life Sciences
B. Sc. (Hons.) in Genetic Engineering and Biotechnology
Final Examination Spring 2026

Course Code: 0611-1209

Course Title: Computer Fundamentals and
Computational Biology

Level and Term: L-1, T-2

Section: 253 (A+B)

Course Teacher Initials: MAR

Time: 2 Hours

Total Marks: 40

- 1 (a) Define MS Word, Excel and PowerPoint with application. [CLO1, PLO1, C1] 3
(b) Briefly describe how to type a text in MS Word. [CLO1, PLO4, C3] 5
- 2 (a) Explain the types of biological databases. [CLO1, PLO2, C1] 3
(b) Analyze the scope of bioinformatics in the biological sciences. [CLO1, PLO4, C4] 5
- 3 (a) How can 3D structure of a protein be predicted. Distinguish [CLO1, PLO2, C4] 4
between PyMol and NumPy.
(b) What is Python? State the applications of Python in [CLO1, PLO9, C1] 4
bioinformatics.
- 4 (a) Explain the role of bioinformatics in biotechnology. [CLO1, PLO2, C2] 3
(b) Briefly describe the role bioinformatics in molecular medicine and [CLO1, PLO4, C5] 5
personalized medicine.
- 5 (a) Name shortcut keys used in MS word with their function. [CLO3, PLO10, C1] 3
(b) How can you construct a PowerPoint slide using Microsoft [CLO3, PLO10, C6] 5
PowerPoint.