4. Write notes on the following: [2x7=14]
   (a) Plant systems biology
   (b) Proteomics

5. Write notes on the following. [4x3.5=14]
   (a) KEGG
   (b) COG
   (c) GO
   (d) mi RNA

OR

6. Explain first and second generation sequencing with suitable example and models. [14]

7. Write notes on the following. [2x7=14]
   (a) Cytological data in solving taxonomic problems
   (b) Cladestic analysis

OR

8. What do mean phylogenetic analysis? Write elaborate note on application of AFLP marker in Angiosperm taxonomy. [14]

9. Write notes on the significance of ADMETox screening in drug discovery. [14]

OR

10. Write a short note regarding how medicinal and aromatic plants play significance in drug discovery. [14]

★★★





**PG (CBCS) EVEN SEMESTER EXAMINATION, 2023**

**LIFE SCIENCE & BIOINFORMATICS**

4th Semester

Course No. : LSCC - 403(B)

**( Advanced Plant Biology )**

Full Marks : 70

Pass Marks : 28

Time : 3 hours

*The figures in the margin indicate full marks for the questions*

(Answer all questions)

1. Write the principles and applications of ribosomal DNA seruencing and PCR ribotyping in microbial identification. [7+7=14]

OR

2. Discuss the following citing examples in relation to patenting of microbes. [2x7=14]
   (a) Indian patent laws
   (b) Types of patent applications

3. define the term metabolomics. What are various approaches to study plant metaboloms? Explain the role of mass spectrometry and NMR in plant metabolomics. [2+4+8=14]

OR