

(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2021 ONLY)

21PBY414

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : MAY-2023

COURSE NAME: M.Sc.-BOTANY

MAXIMUM MARKS: 70

SEMESTER: IV

TIME : 3 HOURS

**BIOINFORMATICS AND CYBER SECURITY**

**SECTION - A**

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**(K1)**

1. Bio-informatics is also known as \_\_\_\_\_.  
a. Computational biology   b. Computer biology   c. Computational base   d. Computational code
2. BLOSUM is used for \_\_\_\_\_.  
a. Sequence alignment of amino acids                      b. Sequence alignment of DNA  
c. Sequence alignment of Proteins                              d. Sequence alignment of RNA
3. It is a tool to predict the secondary structure of a protein \_\_\_\_\_.  
a. SWISS PORT      b. EMB      c. CLUSTAL      d. SOPMA
4. Cyber security is a subset of \_\_\_\_\_.  
a. Biology      b. Computer science      c. Maths      d. Economics
5. WPA, WEP and WAP2 are the types of \_\_\_\_\_.  
a. Model security   b. Cyber security   c. Drug      d. Net security

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES. (K2)**

6. Who was coined the term bioinformatics?
7. What is the full form of PHYLIP?
8. What does SWISS-PORT stand for?
9. Who invented Cryptography?
10. What does Cyber crime mean?

**SECTION – B**

**(5 X 4 = 20 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Explain Gen bank.

**(OR)**

- b) Describe the DDBJ.

12. a) Differentiate PAM with BLOSUM.

**(OR)**

- b) Examine the Gene prediction methods.

**(CONTD.....2)**

- 13.a) Enumerate the RASMOL .  
(OR)  
b) Outline the computer aided drug designing.
- 14.a) List the Malicious software and explain it.  
(OR)  
b) Find out the Windows security.
- 15.a) Interpret the supply chain security in software.  
(OR)  
b) Compare the copy right and patent .

**SECTION - C****(4 X 10 = 40 MARKS)****ANSWER ANY FOUR OUT OF SIX QUESTIONS****(16<sup>th</sup> QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS  
(FROM Qn. No : 17 to 21) (K4 (Or) K5)**

16. Summarize the Intellectual Property Rights.
17. Discuss the BLAST tools available with NCBI.
18. Enumerate the Molecular phylogeny.
19. Justify the systems biology concepts and its application.
20. Write your opinion about the Cryptography.
21. Interpret the Network security.

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**ETHICAL PAPER**