D 32489 **(Pages : 2)** **Name.....**

Reg. No.....

FIRST SEMESTER B.Sc. DEGREE EXAMINATION, JANUARY 2013

(CCSS)

Biotechnology—Core Course

BT 1B 01—INFORMATICS AND BIOINFORMATICS

Time : Three Hours **Maximum : 30** Weightage

I. Objective type questions. Answer all *twelve* questions :

A. Name the following :

1. **Internet access method.**
2. **Protein structure database.**
3. **Data mining tool.**
4. **Nucleotide database.**
5. **Algorithm for local alignment.**
6. **Central dogma of molecular biology.**

B. Expand the following :

7. EMBJ.
8. NCBI.
9. PHI-BLAS.
10. HTTP.
11. ORF.
12. BRNET.

(12 x $\frac{1}{4}$ = 3 weightage)

II. Short answer type questions (Answer all *nine* questions) :

Write short notes on :

13. **Copy rights.**
14. Phylip.
15. Unicode.
16. **Wireless technology.**
17. **Algorithm.**
18. **Biological database.**
19. www. **(world wide web).**
20. BLOSUM **matrices.**
21. **Identity and similarity.**

(9 x = 9 weightage)

Turn over

III. Short essay or paragraph questions. (Answer any *five* from seven) :

22. EST analysis.
23. Virtual Reality.
24. Green computing.
25. Artificial intelligence.
26. Cyber security.
27. PDB.
28. Genbank.

(5 x 2 = **10** weightage)

IV. Essay questions. (Answer any *two* from three) :

29. What is homology search ? Mention the steps involved in **homology search. Explain** ıe procedure with the help of an **appropriate example.**

30. What is Bioinformatics ? **Elaborate on the concept of** Bioinformatics. **Mention the tools of** Bioinformatics **and enlist its applications.**

31. How biological databases are classified ? What are the most used databases for molecı **biology** ?

(2 x 4 = 8 weight