

S.No. 1770

12UBTS03

(For the candidates admitted from 2012-2013 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

Fifth Semester

Biotechnology

SBEC — BIOINFORMATICS, INTELLECTUAL
PROPERTY – RIGHTS AND BIOSAFETY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is bioinformatics?
2. Define biological databases.
3. Explain nucleotide sequences.
4. Expand CATH.
5. Expand BLAST.
6. Define BLOSUM.

7. Explain WIPO.
8. Define IPR.
9. Explain biosafety for human health.
10. Write any two biosafety guidelines.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write a note on PDB.
Or
(b) Give a short note on history of bioinformatics.
12. (a) Write about genome data base.
Or
(b) Give a brief note on EMBL.
13. (a) Explain BLOSUM matrices.
Or
(b) What are the types of BLAST? Explain in detail.

14. (a) Define WIPO and GATT.
Or
(b) Write a short note on patents, copy rights and trade marks.
15. (a) Write about the biosafety guidelines.
Or
(b) Explain about regulation and operation of biosafety.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions out of Five questions.

16. Explain in detail about the human genome project.
17. Write a detailed note on structural databases.
18. Write a note on Needleman Wunsch and Smith Waterman algorithm.
19. Give a detailed account on patents of biotechnology in India.
20. Explain in detail about the biosafety risk for human health, environment and agriculture.