

(i) Printed Pages: 2

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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B.Sc. (Hons.) Biotechnology 6th Semester
(2054)

GENOMICS AND PROTEOMICS

Paper : BIOT-604-T

Time Allowed : Three Hours]

[Maximum Marks : 67

Note :—FIVE questions are to be attempted. Question No. 1 is compulsory. Attempt **ONE** question from each Unit.

1. Answer briefly :

(1) UCSC Genome Browser

(2) Hydrophobicity

(3) Sedimentation Analysis

(4) Resolution of 2D PAGE

(5) β -mercaptoethanol

(6) Automated sequencing

(7) Mass spectrometry

(8) SGD

(9) Old NTPs

(10) Clone Contig Method.

1.5×10=15

UNIT—I

2. (a) Write a note on Maxam and Gilbert method of sequencing. 7
- (b) Discuss the principle of pyrosequencing. 6
3. Write a note on the Genome sequence assembly softwares. 13

UNIT—II

4. Write notes on :
 - (a) ENSEMBL
 - (b) NCBI genome. 13
5. (a) Discuss any tool for genome analysis. 6
- (b) Explain the Mouse Genome Database. 7

UNIT—III

6. (a) Explain Edman degradation for protein sequencing. 6
- (b) Discuss any technique for determination of protein sizes. 7
7. Write a note on the physical interactions that determine the property of proteins. 13

UNIT—IV

8. (a) Discuss any method for analysis of proteome. 6
- (b) Explain de novo sequencing using mass spectrometric data. 7
9. Write notes on :
 - (i) Sample preparation of 2D PAGE
 - (ii) Reproducibility of 2D PAGE. 13