

25/5/2023 (mommy)

Exam.Code:0442  
Sub. Code: 3514

2053  
M.Sc. (Bio-Informatics) Fourth Semester  
MBIN-8020: Expression Bio-Informatics

Time allowed: 3 Hours

Max. Marks: 45

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Answer the following:-

- a) Differentiate between siRNA & shRNA.
- b) What are hybridization & its significance?
- c) Explain Differential display.
- d) Define cDNA.
- e) Define microarray.
- f) Discuss RNAi.
- g) What is protein chip?
- h) What is cluster analysis?
- i) What is k mean clustering?

(9x1)

UNIT - I

II. a) Discuss microarray experimentation.

b) Discuss cluster analysis.

(5,4)

III. a) Discuss normalization in array analysis.

b) What is self organizing maps & its significance?

(5,4)

IV. a) What is CHIP on chip arrays?

b) Write a note on image analysis for microarray analysis.

(5,4)

UNIT - II

V. a) What is the importance of piRNA & SnoRNA?

b) Discuss experimental strategy for making protein library?

(3,6)

VI. Discuss Protein chips & its application.

(9)

P.T.O.

(2)

- VII. a) What functional microarray and its applications?  
b) Write a short note on EST database.

(6,3)

- VIII. a) Define differential display & its significance?  
b) Write a note on piRNA and SnoRNA.

(3,6)

x-x-x