

M. Sc. (Medical Biotechnology) Sem-III (Choice Based Credit System)

: WINTER - 2018

SUBJECT: GENOMICS & PROTEOMICS

Day: Tuesday
Date: 30/10/2018

W-2018-1301

Time: 02.00 PM TO 05.00 PM
Max marks: 60

N.B:

- 1) Q. No. 1 & Q. No 5 are **COMPULSORY**. Answer any **TWO** questions from section- I and any **TWO** questions from section- II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** Answer book.

SECTION- I

- Q.1** Answer any **FIVE** of the following questions in brief: (10)
- a) What is Genomics?
 - b) What are map repositories? Give two examples.
 - c) What do you mean by compositional analysis?
 - d) What is a protein fold?
 - e) What is a proteome?
 - f) Explain the meaning of term "Transcriptomics".
- Q.2** Answer any **TWO** of the following question in brief: (10)
- a) What is a genome map? Describe various types of genome maps.
 - b) Describe single chromosome and regional maps.
 - c) Explain STS content maps.
- Q.3** Explain in brief: (10)
- a) Transposable elements.
 - b) Clustering of genes.
- Q.4** Write short note on any **TWO** of the following: (10)
- a) PSSM
 - b) MMDB
 - c) FSSP

SECTION- II

- Q.5** Answer the following questions: (10)
- a) What is Microarray? Explain the steps to perform microarray.
 - b) Explain Gene order.
- Q.6** Answer any **TWO** of the following question in brief: (10)
- a) Describe OMIM.
 - b) Explain Cytogenetic map.
 - c) Explain genome database.
- Q.7** Write short note on the following: (10)
- a) CATH
 - b) SCOP
- Q.8** Explain followings in brief: (10)
- a) High throughput analysis for proteomics.
 - b) Applications of proteomics.

* * * *