

**M. SC. (MEDICAL BIOTECHNOLOGY) SEM-III (CHOICE
BASED CREDIT SYSTEM) : SUMMER - 2018
SUBJECT: GENOMICS & PROTEOMICS**

Day: **Thursday**
Date: **05/04/2018**

Time: **02.00 PM TO 05.00 PM**
Max. Marks: 60

S-2018-1172

N.B.:

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of the remaining questions solve any **TWO** from each section.
- 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** Define: **(10)**
- | | |
|------------------------|----------|
| i) High resolution map | ii) Line |
| iii) ENTREZ | iv) GDB |
| v) OMIM | |
- Q.2** Differentiate between: (Any **TWO**) **(10)**
- a) Genetic mapping and physical mapping
 - b) Mouse genome and expression database
 - c) Linkage map and radiation hybrid map.
- Q.3** Write short notes on: (Any **FOUR**) **(10)**
- a) SNP
 - b) Polymorphic markers
 - c) HUGO
 - d) STS
 - e) UCSC Browser
- Q.4** Answer the following: (Any **TWO**) **(10)**
- a) Describe the silent features of HGP.
 - b) Explain with neat labeled diagram of Eukaryotic gene structure.
 - c) Explain the Pseudo genes Theory.

SECTION-II

- Q.5** Give two examples of : **(10)**
- a) Literature databases
 - b) Transposable elements
 - c) EST
 - d) Phylogenetic comparison tools
 - e) 3D structure visualization tools
- Q.6** Answer the following: (Any **TWO**) **(10)**
- a) What do you mean by Transcriptomics? Explain importance of this field with example.
 - b) Write a note on DNA Microarray technology.
 - c) Describe in detail RNA chips.
- Q.7** Write notes on: (Any **TWO**) **(10)**
- a) CATH
 - b) BLOCK
 - c) SCOP
- Q.8** Explain the protein Expression Analysis methods in detail. **(10)**

OR

Write Automation of proteomic analysis. Enlist its applications in clinical and biomedical field.

* * * *