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Roll No:

6th SEMESTER

B.Tech. (Biotechnology]

MID SEMESTER EXAMINATION

March 2019

BT 306 :Genomics and Proteomics

Time: 1:30 Hours

Total Marks: 20

Note: Answer any four of the following Questions. Each questions carry equal marks of 5 . Answer should be brief and to the point.

1. What do you understand by a Genome? What way genomes can be studied (different areas of genomics study) and why genome study is important. Write in brief.
2. What are artificial chromosomes and what are the main components of artificial chromosomes? How it helps in Genomics study?
3. What is comparative genomics? How comparative genomics study can be done and what way/level we can compare genomes of two or more species?
4. What is a genetic map? In what way genetic maps help in genome study? Write in very brief about the genetic maps.
5. What are molecular markers? Mention different types of molecular markers and describe in brief about one marker of your choice including its advantages and disadvantages.
6. What do you mean by genome sequencing? List the different methods of DNA/ genome sequencing starting from Sanger sequencing to current day technology and write in brief about a technique of your choice.
7. What are the different types of mapping populations? Why we need mapping population? Write in brief about homozygous and heterozygous mapping population.

8. Write in brief the differences between Fluorescence *In situ* hybridization(FISH) and Genomic *In situ* hybridization(GISH). Mention the importance of these two techniques in genomics study.

END