

COURSE NAME: High Throughput Technologies

MAX.MARKS:25

COURSE CODE: 13M11BT114

MAX.TIME: 1.5 HR.

Note: Attempts all questions. Carrying of mobile phones during examinations will be treated as a case of unfair means. Marks are indicated against each question in bracket.

1. Write on the differences between Pyrosequencing and solid-phase Illumina sequencing with respect to the technology and principle involved in it (3) COI
2. Write on following (5) COII
 - i. cDNA based Microarray
 - ii. oligo-nucleotide based microarray
 - iii. Define probe that used in the DNA microarray
3. What are different characteristics of DNA microarray and why often dUTP labelled with Cy3/Cy5 have been used frequently for labelling of cDNA (4) COII
4. What is SNP? How SNPs are introduced into the genome? Why screening of SNPs is important? Discuss the role SNP in tumor-suppressor gene its association in types of cancer and also non-association (if any) (4) COII
5. If you have been given the oligo-nucleotide based DNA microarray of mice genome, describe the strategies to identify the differentially expressed genes in cancerous and normal mice lung tissue? (5) COII