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COURSE CODE: 13M11BT114 MAX.MARKS: 35
COURSE NAME: HIGH THROUGHPUT TECHNOLOGY MAX. TIME: **2 Hrs**
COURSE CREDITS: 03

Note: All questions are compulsory. Carrying of mobile phone and calculator during examinations will be treated as case of unfair means. Marks are indicated in brackets.

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1. What are the different types oF protein modifications in the protein that can give functional properties to the proteins? (4)

2. Give different strategies to extract protein (soluble/insoluble) so that you can enrich the identities of proteins using proteomic approach? (4)

3. Write on the PMAGE as a high throughput technology to screen genome wide expression analysis? Where do you find its precise applications? (4)

4. . Write on protein array that provide high throughput functional assay to proteins? Give examples where protein –ligand interactions are applicable using protein array? (4)

5. What is single cell RNA sequencing and give its work flow? Where do you find its application in the biotechnology? (4)

6. Cell free expression system is the important tool in the biotechnology applicable to proteins that are difficult to express or to purify, describe detailed methodology of in-vitro protein translation for a prokaryotic protein? (5)

7. Give a high throughput approach to exclusively identify the glycosylated and phosphorylated proteins from the cancerous and non cancerous biological samples? (5)

8. What is Illumina solid phase sequencing? Describe the important steps involved in the sequencing? (5)