

Dr. Garlapati

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- ~~DEC~~ 2017

B.Tech 7<sup>th</sup> Sem/BTDD 9<sup>th</sup> Sem

COURSE CODE: 15M11BT431

MAX. MARKS:35

COURSE NAME: Traditional Bioprocesses and their upscaling

COURSE CREDITS: 3

MAX. TIME: 2 h

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

1. Write in detail about the "Protein A Chromatography" used in DSP of Mab's? Discuss about the bioaffinity ligands used as alternatives to "Protein A chromatography? (5 M)
2. Discuss about the extraction and distillation techniques used in flavour production? (5 M)
3. Mention any five common flavours produced during fermentation along with the responsible microorganism? Write the "Flavour" features in case of "Wine" production? (5 M)
4. Mention the health benefits provided by phytopharmaceuticals? Mention any five phytopharmaceuticals along with the source and their role toward health benefits? (5 M)
5. What are the desirable properties and benefits of probiotics? What are "Prebiotics and mention the characteristics of "prebiotics" (5 M)
6. What are the advantages of using inorganic carriers instead of organic ones for sol-gel immobilization? Name any two network modifying & network forming precursors use in case of sol-gel immobilization? (5 M)
7. Write about the importance of "CD spectroscopy" and "Microcalorimetry" in case of immobilized enzyme analysis? (5 M)

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