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**GIET UNIVERSITY, GUNUPUR – 765022**

M. Sc. (Second Semester) Examinations, September - 2021

20BTPC207 – Microbial Technology

(Biotechnology)

Time: 2 hrs

Maximum: 50 Marks

(The figures in the right hand margin indicate marks.)**PART – A**Q.1. Answer **ALL** questions**(2 x 10 = 20 Marks)**

- Write two characteristics of biosensor?
- What is biohydro metallurgy?
- Name two microbes involved in bioleaching?
- What is the difference between aerobic biodegradation and anaerobic biodegradation?
- Name two enzymes used in detergent?
- What are TALEs and TALENs?
- What is genome editing?
- What is the role of zinc finger protein?
- What is the importance of strain improvement?
- What is primary screening? Give one example.

PART – B (6 x 5 = 30 Marks)Answer ANY FIVE the questions

Marks

- Write about the isolation and screening process of microbes important for industry with its application? (6)
- Discuss about the role of microorganisms in human welfare? (6)
- Discuss in about bioremediation mechanism for the removal of toxic waste? (6)
- Discuss about the downstream approaches used in industrial production process? (6)
- Explain about the role of biosensor in environmental monitoring with its importance? (6)
- Discuss about the role of microbes and microbial processes in food and healthcare industries? (6)
- Write notes on international and national guidelines used regarding use of genetically modified organisms in environment, food and pharmaceuticals? (6)

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