

--	--	--	--	--	--	--	--	--	--



GIET UNIVERSITY, GUNUPUR – 765022

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

20BTPC205 – Molecular Diagnostics

(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)**
- a. What is Central dogma?
 - b. Write down the name of three cell organelles where you can find DNA?
 - c. What do you mean by SNPs in a DNA?
 - d. What do you mean by ISH?
 - e. Mention the name of 2 methods for Nucleic acid sequencing?
 - f. What do you mean by EST?
 - g. What do you mean by inherited diseases?
 - h. What is Cancer?
 - i. How biomarkers are helpful for personalized onco-therapy?
 - j. What is Quality oversight?

PART – B (6 x 5 = 30 Marks)

- | <u>Answer ANY FIVE question?</u> | Marks |
|---|-------|
| 2.. Describe different structure of chromosome and explain how mutations affect chromosomal structure? | (6) |
| 3. What do you mean by DNA polymorphism? Mention the significance of DNA polymorphism with respect to human identity. | (6) |
| 4. Explain RFLP? Describe two applications of RFLP. | (6) |
| 5. Explain DHPLC. Describe two applications of DHPLC. | (6) |
| 6. Describe the principle and operation of NMR. Explain one applications of NMR. | (6) |
| 7. What do you mean by <i>in vitro</i> cultivation of microorganisms? How can we detect and identify culturable aerobic bacteria in a Laboratory? | (6) |
| 8. What are different genetic aberrations? How can you detect genetic aberrations in clinical samples from cancer patients? | (6) |

--- End of Paper ---