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GIET UNIVERSITY, GUNUPUR – 765022
M. Sc (First Semester) Examinations, May – 2021
20BTPC101 – CELL AND MOLECULAR BIOLOGY
(BIOTECHNOLOGY)

Time: 2 hrs

Maximum: 50 Marks

(The figures in the right hand margin indicate marks.)

PART – AQ.1. Answer ***ALL*** questions

(2 x 10 = 20 Marks)

Write short notes on the following:

- a. Telomeres
- b. Okazaki fragments
- c. Nucleolar organizer
- d. Open Reading frame
- e. Anaphase-promoting complex (APC)
- f. Wobble hypothesis
- g. Zygonema
- h. Mutant
- i. DNA gyrase
- j. Oncogene

PART – B

(6 x 5 = 30 Marks)

Answer ***ANY FIVE*** questions

Marks

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|---|-----|
| 2. Write an essay on molecular mechanisms of membrane transport. | (6) |
| 3. Elaborate different modes of cell death and their regulation. | (6) |
| 4. With a labelled diagram, elaborate on the findings when a cell is observed under a microscope. | (6) |
| 5. What are mutagens? Elaborate on physical, chemical, and biological mutagens. | (6) |
| 6. Elaborate on structure and assembly of eukaryotic and prokaryotic RNA polymerase. | (6) |
| 7. Elaborate on the peculiarities of lysosomes and peroxisomes. | (6) |
| 8. Elaborate on Universal Genetic Code. | (6) |

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