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**GIET UNIVERSITY, GUNUPUR – 765022**  
M. Sc. (First Semester) Examinations, March – 2023  
**22LSPC102 – Cell Biology and Genetics**  
(Life Science)

Time: 3 hrs

Maximum: 70 Marks

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

**PART – A****(2 x 10 = 20 Marks)****Q.1. Answer all questions**

	CO#	Blooms Level
a. Define endospore.	1	K1
b. Differentiate between animal cell and plant cell.	1	K3
c. What is law of segregation?	4	K3
d. How many gametes will be formed in case of genotype AABbCc.	4	K5
e. Why G1 phase is known as quiescent phase?	2	K4
f. What do you mean by secondary messenger?	3	K4
g. Name few enzymes present in lysosome.	3	K3
h. What is the role of LPS in bcacteria?	1	K3
i. What are the various ways by which mutation can occur?	4	K2
j. Describe about chloroplast DNA.	3	K3

**PART – B****(10 x 5 = 50 Marks)**Answer ANY FIVE questions

	Marks	CO#	Blooms Level
2. a. Discuss about hardy Weinberg law.	5	4	K4
b. What do you understand by chromosomal aberration? Describe with suitable example.	5	4	K3
3.a. Discuss the about the structure and function of nucleus.	5	2	K3
b. Write a note on desmosome.	5	1	K3
4. Discuss the events in meiosis.	10	3	K3
5.a. Describe RTK pathway.	5	3	K3
b. Describe with suitable example of synaptic signalling	5	2	K4
6. Describe about motility of cell. Discuss various cell motility organelles.	2+8	1	K4
7.a. Mention role of checkpoints in cell cycle.	5	2	K4
b. Write a note on composition of cell membrane.	5	1	K3
8. Discuss about the laws of father of genetics with suitable examples.	10	4	K4

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