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SUBJECT CODE NO: -BB-2327
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. (CBCGS) (Pattern 2022) T.Y. SEM V
Examination November / December 2025
Botany-XVII Cell Biology and Molecular Biology

[Time: 1:30 Hours]**[Max. Marks: 40]**

Please check whether you have got the right question paper.

N. B

- i) Attempt all questions.
- ii) All questions carry equal marks.
- iii) Draw neat and well-labelled diagrams wherever necessary.

Q1 Describe in details structure of eukaryotic cell.**10****OR**

Describe in brief.

- a) Nucleolus.
- b) Lysosomes.

Q2 Describe the phases of cell cycle.**10****OR**

Describe in brief.

- a) Significance of Meiosis
- b) Zygotene

Q3 Explain the structure and function of chromosomes.**10****OR**

Describe in brief.

- a) Lampbrush chromosomes
- b) Z-DNA

Q4 Multiple Choice Questions.**10**

1. Which cell type does not have a true nucleus?
 - a) Plant Cell
 - b) Animal Cell
 - c) Bacterial Cell
 - d) None of these
2. In Prokaryotic cell DNA is
 - a) Enclosed by nuclear envelope
 - b) Lacking
 - c) Not a genetic material
 - d) Without a membrane
3. Middle lamella cell wall is made up of _____.
 - a) Lignin
 - b) Suberin
 - c) Cellulose
 - d) None of these

4. The term cell is coined by _____.
a) Tatum
b) Schwann
c) Robert Hook
d) De bary
5. Balbiaki rings occurs in _____.
a) Autosome
b) Heterosome
c) Lampbrush chromosome
d) Polytene chromosome
6. Which molecule is known as genetic material?
a) Protein
b) Carbohydrate
c) DNA
d) Lipid
7. Which type of RNA carries the code from DNA to the ribosomes?
a) t RNA
b) r RNA
c) d RNA
d) m RNA
8. What is the shape of DNA molecule according to Watson and Crick?
a) Single strand
b) Circular
c) Double helix
d) Random coil
9. Chromosomes are condensed in _____.
a) Interphase
b) Metaphase
c) Prophase
d) Telophase
10. In Transcription genetic information transfer from _____.
a) DNA to RNA
b) m RNA to t RNA
c) DNA to m RNA
d) None of these

