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SUBJECT CODE NO:- B-2041
FACULTY OF SCIENCE & TECHNOLOGY
B.Sc. T.Y. (Sem-V)
Examination November/December- 2022
Botany Paper- XV
(Cell Biology & Molecular Biology)

[Time: 1:30 Hours] **[Max. Marks:50]**

Please check whether you have got the right question paper.

N.B   i) Attempt all questions-
                       ii) Draw neat and well-labelled diagrams wherever necessary.

Q.1   Describe in details structure and functions of nucleus.   20

OR

Describe in details double helical structure of DNA.

Q.2   What is Giant chromosome? Write in detail polytene and Lampbrush chromosome.   20

OR

Write short notes on (Any four)

     a)   Lysosomes

     b)   Prokaryotic cell

     c)   Cell cycle

     d)   Cytokinesis

     e)   Heterochromatin

     f)   Trisomy

Q.3   Multiple choice questions   10

     1)   Following is an example of prokaryotic organism

         a)   E. coli   b) Chara   c) China rose   d) Cycas

     2)   Golgie bodies are made up of

         a)   cisternae   b) thylakoids   c) quantasome   d) chromatin

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3) The space between nuclear membranes is known as

    a) Intercellular space   b) Nuclear pore   c) Perinuclear space   d) Lamella

4) _____ is a preparatory phase in cell division

    a) Prophase   b) Interphase   c) Anaphase   d) Pachytene

5) Subunit of 80 s ribosomes are

    a) 60 S + 40 S   b) 50 S + 30 S   c) 100 S   d) 80 S + 20 S

6) Anticodons are present on

    a) M-RNA   b) t-RNA   c) r-RNA   d) all the above

7) 2n+2 condition is known as _____

    a) Trisomy   b) Monosomy   c) Nullisomy   d) Tetrasomy

8) Centromere is located at end of chromosome in

    a) Metacentric   b) Submetacentric   c) Acrocentaic   d) Telocentric

9) If the cell has a 2n-2 genomic formula, then this condition is known as _____

    a) Monosomic   b) Nullisomic   c) Trisomy   d) Tetrasomy

10) In _____ two non-homologus chromosomes exchange their segments

    a) Duplication   b) Deletion   c) Translocation   d) Inversion