

Sl. No.

No. of Printed Pages : 1

**76462**



**M.Sc. II Semester Degree Examination, September/October - 2022**

**BOTANY**

**DSC-6-21 BOT 2C5L : Cell Biology**

Time : 3 Hours

Maximum Marks : 70

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**Instructions :** (i) Answer **any 5** questions.  
(ii) Question no. **1** is **compulsory**.

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1. (a) Explain the nucleosome solenoid model of Eukaryotic chromosomes. **10**  
(b) Write a note on Chromatin material. **4**
2. Explain structural chromosomal abnormalities and discuss the significance of each type of abnormalities. **14**
3. (a) Write a note on karyotyping and its significance. **7**  
(b) Enumerate the importance of in-situ hybridization techniques. **7**
4. Define cytoskeleton and discuss its types with structures. **14**
5. Define cell cycle with its various phases and explain checkpoints and their regulation. **14**
6. What are cell adhesion molecules ? Discuss the significance of each types of cell adhesion molecules. **14**
7. (a) Give reasons for the origin and formation of breaks, gaps and ring chromosomes. **10**  
(b) Write a short note on apoptosis. **4**
8. Discuss the structure and function of lysosomes, vacuoles and peroxisomes. **14**

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