

**M.Sc. IV SEMESTER [MAIN/ATKT] EXAMINATION  
JUNE - JULY 2024**

**BIOTECHNOLOGY**

**Paper - III  
[Cancer Genetics]**

*[Max. Marks : 75]*

*[Time : 3:00 Hrs.]*

*[Min. Marks : 26]*

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**Note :** Candidate should write his/her Roll Number at the prescribed space on the question paper.  
Student should not write anything on question paper.  
Attempt five questions. Each question carries an internal choice.  
Each question carries **15 marks**.

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**Q. 1** Explain the mechanism of chromosomal aberrations in Neoplasia.

**OR**

Write types and general characteristics of tumors in details.

**Q. 2** Discuss in detail Epigenetic modification and DNA repair genes.

**OR**

Write notes on -

- i) Tumor Suppressor genes.      ii) Clonal Evolution.

**Q. 3** Write about Wilms Tumor its symptoms causes and treatments in details.

**OR**

Write notes on -

- i) Colorectal Cancer.      ii) Breast Cancer.

**Q. 4** Explain in detail metastasis.

**OR**

Write in detail about Tumor specific markers.

**Q. 5** Explain the mechanism of chemical and biological carcinogenesis.

**OR**

Write notes on -

- i) Cancer Risk Assessment.      ii) Gene Therapy.