

D 50717

(Pages : 2)

Name.....

Reg. No.....

**FIFTH SEMESTER (CBCSS-UG) DEGREE EXAMINATION
NOVEMBER 2023**

Zoology

ZOL 5B 06T—CELL BIOLOGY AND GENETICS

(2019 Admission onwards)

Time : Two Hours and a Half

Maximum : 80 Marks

Section A

I. Short answer Questions: Each question carries 2 marks.

- 1 Write on extracellular matrix.
- 2 Comment on polygenic inheritance.
- 3 Give an account on bulk trans-membrane transport.
- 4 Write on the inheritance of Rh factor.
- 5 Explain the concept of Biogenesis of mitochondria.
- 6 Comment on co-dominance.
- 7 Write notes on phase contrast microscope.
- 8 Give account on linkage groups.
- 9 What are Tumor suppressor genes ?
- 10 What is mitotic recombination ?
- 11 Write note on Endomitosis.
- 12 Comment on SRY gene.
- 13 Write note on nucleosomes.
- 14 What are mutagenic agents ?
- 15 Write on polygenic traits.

(Ceiling : 25 marks)

Section B

II. Paragraph questions. Each question carries 5 marks.

- 16 Write notes on ultrastructure and functions of cytoskeleton.
- 17 What are duplicate genes? Comment on it with suitable examples.

Turn over

- 18 Briefly explain the mechanisms of apoptosis and add note on its significance.
- 19 Write note on different types of sex-linked characteristics.
- 20 Briefly elaborate the structure and functions of nucleolus.
- 21 Explain different types of gene mutations.
- 22 Write note on various stages of processing of fixed tissues.
- 23 Explain in detail the role of autosomal mutations in genetic disorders.

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Section C

III. Essay questions. Answer any *two* questions

- 24 Describe the event of meiosis with suitable illustrations. Comment on its signi
- 25 Give an account on multiple alleles with examples
- 26 Write an essay on structure and composition of plasma membrane. Add functions.
27. Elaborate the mechanisms of sex determination with suitable examples.

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