

D 110261

(Pages : 2)

Name.....

Reg. No.....

FIFTH SEMESTER (CBCSS-UG) DEGREE EXAMINATION, NOVEMBER 2024

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 What is refraction ?
- 2 What is refractive index ?
- 3 List the organelles present in the nucleus.
- 4 List any four functions of golgi complex.
- 5 What are the types of chromosomes ?
- 6 List the different phases of an eukaryotic cell cycle.
- 7 Define proto oncogene. Give an example.
- 8 What are the four types of epistasis ?
- 9 What are the supplementary genes ?
- 10 What Is A Universal Blood Donor ?
- 11 List any 2 examples of multiple allele traits.
- 12 What does a Barr body presence in a person signify ?
- 13 What is a haplodiploidy type of sex-determination system ?
- 14 Define mutation.
- 15 Give the significance of sickle cell anaemia.

(Ceiling 25 marks)

Section B

II. Paragraph questions. Each question carries 5 marks.

- 16 List the characters of a cancer cell.
- 17 List the applications of STEM.

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- 18 Give the salient features of unit membrane concept.
- 19 What are the functions of polytene chromosomes?
- 20 Illustrate the inheritance of comb pattern in the poultry in a diagram.
- 21 Give the salient features of autosomal recessive inheritance.
- 22 Explain incomplete linkage with an example.
- 23 What causes erythroblastosis fetalis?

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Section C

III. Essay questions. Answer any *two* questions.

24. Give a detailed account on the different types of light microscope.
25. Explain in detail about the structure and function of lysosomes.
26. Explain the concept of complementary gene interaction with an example.
27. Explain in detail about environmental sex determination in crocodile.

(2 × 1)