

This question paper contains 2 printed pages]

**PA—69—2024**

**FACULTY OF SCIENCE AND TECHNOLOGY**

**B.Sc. (Second Year) (Fourth Sem.) EXAMINATION**

**MARCH/APRIL, 2024**

**(New Pattern)**

**ZOOLOGY**

**Paper VIII**

**(Cell Biology and Genetics)**

**(Saturday, 20-04-2024)**

**Time : 2.00 p.m. to 4.00 p.m.**

*Time—2 Hours*

*Maximum Marks—40*

*Note :—* (i) Attempt *all* questions.

(ii) Illustrate your answers with suitable and labelled diagrams wherever necessary.

1. Describe the structure of Prokaryotic cell. 15

*Or*

(a) Explain the Mendel's law of independent Assortment. 8

(b) Give an account on complementary factor. 7

P.T.O.

2. What is linkage ? Describe the types and significance of linkage. 15

*Or*

(a) Give an account of sex linked inheritance in man with suitable example. 8

(b) Give an account on human pedigree analysis with symbols. 7

3. Write short notes on any *two* of the following : 10

(a) Endoplasmic reticulum

(b) Duplicate gene

(c) Significance of crossing over

(d) Klinefelter syndrome.