

Total No. of Printed Pages: 02

**SUBJECT CODE NO: - Y-2046**  
**FACULTY OF SCIENCE AND TECHNOLOGY**  
**B.Sc. (PATTERN-2013) S.Y. (SEM III)**  
**Examination April / May - 2024**  
**Zoology Paper-VIII Genetics- II**

[Time: 1:30 Hours]

[Max. Marks: 50]

Please check whether you have got the right question paper.

N. B

- 1) All questions are compulsory.
- 2) All questions carry equal marks.

**Q.1** Define gene. Explain transcription of gene.

20

OR

Define population genetics. Explain gene pool and gene frequency.

**Q.2** Define genetic engineering. Explain concept and types of restriction enzymes.

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OR

**Write short notes on any four of the following:**

- [A] Hardy-Weinberg law
- [B] Monozygotic Twin
- [C] Down's syndrome
- [D] DNA fingerprinting
- [E] Conjugation
- [F] Application of r-DNA

**Q.3 Multiple choice questions:**

10

1. Which of the following are non-sense codon?
  - a) AUG    b) UAA    c) GDG    d) UCU
2. Restriction enzyme are also called
  - a) Restriction endonuclease
  - b) Restriction sites
  - c) Restriction polymerase
  - d) Both a & b



