

**B.Sc. (Part I I) (Semester IV)(NEP) Examination Mar/Apr-2024**

**Balasaheb Desai College, Patan**

**Microbiology**

**Subject Code –78914**

**Microbial Genetics & Molecular biology (Paper –VII)**

**Day and Date –**  
**Time -**

**Marks- 40**  
**Period- 2 hours**  
**Pages- 2**

- Instruction -** 1) *All the questions are compulsory.*  
2) *Figures to the right indicate full marks.*  
3) *Draw neat labelled diagrams wherever necessary.*

**Q.1 Rewrite the following sentences choosing the correct alternatives given below.** 8

1. Frame shift mutations are caused by -----

- a) Acridine dyes    b) 5- bromouracil    c) Nitrous acid    d) Hydroxyl mine

2. The pili are encoded by -----

- a) F- Plasmid    b) R Plasmid    c) Metabolic plasmid    d) Virulence plasmid

3. ----- is initiation codon.

- a) AUG    b) UGA    c) UAA    d) UGA

4. ----- DNA repair system depends on visible light.

- a) Base Excision    b) Nucleotide excision    c) Photo reactivation    d) SOS

5. Split genes start and end with -----

- a) Introns    b) exons    c) recons    d) citrons

6. ----- truly brings induction of Lac operon.

- a) Glucose    b) Allocates    c) Lactose    d) Galactose

7. Intake of the naked DNA from the environment by the cell is called as -----

- a) Transformation    b) Transduction    c) Conjugation    d) Vertical gene transfer

8. ----- is the left handed helical DNA.

- a) A    b) B    c) C    d) Z

**Q.2. Attempt following question (Any Two)**

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1. What is Plasmid? Explain types and their properties.
2. Discuss various properties of genetic code.
3. Explain DNA repair by – Photo reactivation and Excision repair.

**Q.3. Write short notes on (Any Four)**

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1. A form of DNA
2. Structure of Lac operon.
3. Split gene.
4. pBR322.
5. Spontaneous mutation.
6. Competence.