

This question paper contains 2 printed pages]

**NA—72—2023**

**FACULTY OF SCIENCE**

**B.Sc. (Third Year) (Sixth Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2023**

**(New/CBCS Pattern)**

**MICROBIOLOGY**

**Paper—XIV**

**(Molecular Biology)**

**(Friday, 15-12-2023)**

**Time : 10.00 a.m. to 12.00 noon**

*Time—2 Hours*

*Maximum Marks—40*

*N.B. :— (i) All questions are compulsory.*

*(ii) Draw a neat labelled diagram wherever necessary.*

*(iii) Answer to the point only.*

1. What is Genetic Code ? Discuss properties of genetic code. 15

*Or*

Write on :

(a) Base analogues and nitrus oxide as chemical mutagenic agents 8

(b) NER. 7

2. What is Operon ? Take a detailed account of inducible regulation in lac operon.

15

P.T.O.

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Or

Write on :

- |       |  |    |
|-------|--|----|
| (a)   | Restriction Endonucleases                | 8  |
| (b)   | PBR 322.                                 | 7  |
| 3.    | Write short notes on (any <i>two</i> ) : | 10 |
| (i)   | RNA polymerase                           |    |
| (ii)  | Frameshift mutation                      |    |
| (iii) | Attenuation                              |    |
| (iv)  | Phage as Vector.                         |    |

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