

Roll No.

DD-468

M. Sc. (Second Semester)
EXAMINATION, May/June, 2020

ZOOLOGY

Paper First

(Molecular Cell Biology and Biotechnology)

Time : Three Hours

Maximum Marks : 80

Note : Attempt all questions. All questions carry equal marks.
Question No. 1 is compulsory.

1. Write short notes on the following :
 - (a) F_1 particle
 - (b) DNA polymerase
 - (c) Heterochromatin
 - (d) Biotechnology and Human Welfare
2. Describe the ultrastructure of Ribosome and differentiate the 70s and 80s Ribosome.

Or

- (a) Biochemical components of 'Plasma membrane'.
 - (b) Lysosome—structure and functions.
3. Describe the process of 'gene regulation in prokaryotes'.

(B-10) P. T. O.

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Or

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

- (a) Structure of RNA polymerase in prokaryotes
 - (b) Wobble Hypothesis
 - (c) Transcription in 'Eukaryotes'
4. Describe the process of 'genetic mapping' and its importance.

Or

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

- (a) Non-coding DNA
 - (b) Southern blotting
 - (c) Nucleosome
5. Write a description of 'methods of 'production of transgenic animals'.

Or

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

- (a) Uses of biotechnology in agriculture
- (b) Applications of stem cell technology
- (c) Medicine biotechnology