



RAN-2503000505048001

T.Y. B.Sc. (NEP) (Sem.V) Examination October - 2025
Bioscience (Microbiology) NEW- Minor
(Paper -BM-ME-4) Fundamental of Cell Biology & Genetics

Time: 1 Hours]

[Total Marks: 25

સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
- (2) Draw neat and labelled diagrams wherever necessary.
- (3) Figures to the right indicate full marks of the question.

Seat No.:

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Student's Signature

Q.1. Multiple choice questions. (Any Five)

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1. Ribosomes are the site of:
 - a. Lipid synthesis
 - b. Protein synthesis
 - c. ATP synthesis
 - d. DNA replication
2. Which cell organelle is called the “powerhouse of the cell”?
 - a. Chloroplast
 - b. Golgi body
 - c. Mitochondria
 - d. Ribosome
3. DNA filaments that develop inside the nucleus during cell division?
 - a. Spindle fibres
 - b. Chromosomes
 - c. Centrioles
 - d. Asters
4. Which of the following is a recessive trait in pea plants?
 - a. Dwarf stem height
 - b. Violet flowers
 - c. Axial flowers
 - d. Inflated pods
5. The smallest unit of genetic recombination is called:
 - a. Recon
 - b. Muton
 - c. Cistron
 - d. Operon
6. Haemophilia is an example of:
 - a. Autosomal dominant inheritance
 - b. Autosomal recessive inheritance
 - c. X-linked recessive inheritance
 - d. Y-linked inheritance

Q.2. Answer Any Two of the following.

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1. Draw a neat & labelled diagram of cell membrane.
2. Write a note on - ER
3. Explain in brief ribosome.

Q.3. Write an essay on - Mono & Di hybrid experiment.

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OR

Q.3. Answer the following questions.

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1. Describe in brief classical gene concept.
2. Write a note on - Multiple allele