R A N - 1 0 2 6

RAN-1026

B. Sc. Microbiology SEM-V Examination

March / April - 2019

MB 11: Microbial Genetics

Time: 2 Hours] **[Total Marks: 50**

સૂચના : / Instructions

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of ☛ signs on your answer book

Name of the Examination:

☛ **B. Sc. Microbiology SEM-V**

Name of the Subject :

☛ **MB 11: Microbial Genetics**

Subject Code No.: 1 0 2 6

Seat No.:

Student's Signature

Instructions:

1. Figures to the right indicate full marks of the question.
2. Draw neat and labelled diagrams whenever necessary.

Q.1 Give Specific answers **12**

a. What is leading strand & lagging strand?

b. Define: i) Replisome and ii) Primosome.

c. Mention the products of Replication, Transcription & Translation.

d. Define: i) Plasmid and ii) Episome.

e. Define: i) Transformation and ii) Competence.

f. Define: i) Spontaneous mutation and ii) Induced mutation.

Q.2 Explain/comment on any two of the following **12**

a. Enzymes and proteins involved in DNA replication.

b. Genetic code are responsible for protein synthesis.

c. Mutation caused by Base analogues.

Q3. Discuss any two of the following. **16**

a. Describe the events taking place at the Replication fork.

b. Describe in detail the process of RNA synthesis in bacteria.

c. What are LFT & HFT lysates? Explain the process of Generalized and Specialized transduction.

Q.4 Write short notes on any two of the following **10**

a. F^+ X F^- conjugation.

b. Reverse mutation v/s Suppressor mutation.

c. AMES Test for checking mutagenicity.

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