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**MBS 407**

**First Semester M.Sc. Degree Examination, December 2018**  
**MICROBIOLOGY (CBCS-PG-CGPA)**  
**Microbial Genetics**

Time : 3 Hours

Max. Marks : 70

I. Answer **any three** of the following :

**(3×10=30)**

- 1) Discuss the effect of histone modifications on structure and functions of Chromatin.
- 2) Describe F-factors and their uses in genetic analysis.
- 3) Give an account on molecular basis of mutations.
- 4) Discuss detailed genetic recombination in bacteriophages and *E.coli*.
- 5) Explain lytic and lysogenic cycle in bacteriophages.

II. Write a note on **any five** of the following :

**(5×5=25)**

- 6) DNA methylation.
- 7) C value paradox.
- 8) Bacterial transformation.
- 9) Contribution of Griffith.
- 10) Restriction mapping.
- 11) Chemical mutagens.
- 12) Overlapping genes.
- 13) Complementation analysis.

P.T.O.



III. Write a notes on **any five** of the following :

**(5×3=15)**

- 14) Histones.
  - 15) Split gene.
  - 16) R plasmids.
  - 17) Karyotype.
  - 18) Alkylating agents.
  - 19) Homologous duplexes.
  - 20) Transposons.
  - 21) Deletion mapping.
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