

M.Sc. - Semester – III Microbiology Examination
November - 2014
Microbial Genetics– Paper X
Subject code: 3691

Time: 2:30 Hours]

[Total Marks:-70

Instructions: All Questions carry equal marks.

Q 1. Write notes on: (a) Fluctuation test (b) Intercalating agents

OR

Q 1. Write notes on: (a) Alkylating agents (b) Isolation of mutants

Q 2. Name the components of *tra* genes. Discuss Mpf system in detail.

OR

Q 2. What are the general steps that occur in natural transformation? Explain transformation in Gram positive bacteria.

Q 3. Discuss regulation of arabinose operon in bacteria.

OR

Q 3. Write notes on: (a) the characteristic features of tumorigenic cells (b) Oncogenes

Q 4. Discuss in detail regulation of copy number in plasmids.

OR

Q 4. Write notes on: (a) Composite transposons (b) Retroposons

Q 5. What are vectors? State their essential features. Discuss plasmids as vectors.

OR

Q 5. Write notes on: (a) Applications of genetic engineering (b) Gene library
