Reg. No. | | | | | | | | | |

BTH 402

First Semester M.Sc. Degree Examination, December 2018
BIOTECHNOLOGY
(CBCS)
Molecular Genetics

Time : 3 Hours Max. Marks : 70

PART – A

Write short notes on **any ten** of the following (**not** exceeding **1** page **each**). **(10×2=20)**

1. a) Multiple alleles.
   b) Pleiotropy.
   c) Dosage compensation.
   d) Griffith experiment.
   e) Frame shift mutation.
   f) Dimer formation.
   g) C-value paradox.
   h) Split genes.
   i) Cri-du-chat syndrome.
   j) Epigenesis.
   k) P-elements.
   l) Epistasis.

PART – B

Write explanatory notes on **any five** of the following (**not** exceeding **3** pages **each**). **(5×6=30)**

2. Sex linkage.
3. Chromosome mapping.
4. Transition and transversion mutation with example.
5. Transformation in bacteria.
6. Gene families with suitable example.
7. Prenatal diagnosis.
8. Factors altering the allelic frequency.

P.T.O.

PART – C

Answer **any two** of the following (**not** exceeding **7** pages **each**). **(2×10=20)**

9. What are transposons ? Describe the mechanism of transposition in bacteria and their implications.
10. Describe the principles, procedure and applications of FISH technique.
11. Give an account of the mechanism of DNA repair.
12. Write an account on Mendelian principles of inheritance using suitable examples.

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