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AG—10—2013

FACULTY OF SCIENCE

B.Sc. (BT) (Second Semester) EXAMINATION

MARCH/APRIL, 2013

BIOTECHNOLOGY

Paper BTT-6

(Genetics)

(Saturday, 23-03-2013)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—80

N.B. :- (i) All questions are compulsory.

(ii) Draw chart diagrams wherever necessary.

1. (a) Explain Mendel's IIIrd law with an example. 10
- (b) What is mutation ? Explain with an example types of mutation. 10

P.T.O.

2. (a) Write a note on interaction of gene for dihybrid cross. 8
- (b) Explain Mendel's 2nd law with an example. 7

Or

- (a) What is linkage ? Explain types of linkage with an appropriate example. 8
- (b) Explain in detail conjugation. 7
3. (a) Explain sex determination in animals. 8
- (b) Write a note on induced mutation in plant for economic benefit of man. 7

Or

- (a) Explain Benzers work on rII locus in T_4 phage. 8
- (b) Discuss characters of sex linkage. 7
4. (a) Write a note on structural aberrations. 8
- (b) Explain Cri-du-chat syndrome. 7

Or

- (a) Explain Hardy-Weinberg's law of equilibrium. 8

- (b) Write a note on cytoplasm inheritance w.r.t. chloroplast genetic system. 7

5. Write short notes on (any *three*) : 3×5=15

- (a) Mendel's 1st law;
- (b) Mutational benefits to human;
- (c) Classical gene concept;
- (d) Multiple alleles;
- (e) Turner syndrome.