

This question paper contains 3 printed pages]

BF—72—2016

FACULTY OF SCIENCE

B.Sc. (First Year) (Second Semester) EXAMINATION

OCTOBER/NOVEMBER, 2016

BOTANY

Paper IV

(Genetics and Plant Breeding)

(MCQ + Theory)

(Thursday, 20-10-2016)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—10+30=40

N.B. :—(i) Attempt All questions.

(ii) All questions carry equal marks.

(iii) Draw well labelled diagrams wherever necessary.

MCQ

1. Multiple Choice Questions (1-10) :

(1) rediscovered work of Mendel.

(a) Hugo de Vries (b) Carl Correns

(c) Eric Von Tschermak (d) All of these

(2) The characters of parents expressed in F1 generation is called

(a) Dominant (b) Recessive

(c) Cohesive (d) Adhesive

(3) The cross between F1 hybrid and recessive parent is cross.

(a) Monohybrid (b) Dihybrid

(c) Test (d) All of these

(4) Haemophilia is chromosome linked character.

(a) X (b) Y

(c) XY (d) All of these

P.T.O.

- (5) Raphanobrassica is
(a) Triploid (b) Allopolyploid
(c) Haploid (d) Monoploid
- (6) Trisomy is
(a) $2n + 2$ (b) $2n + 2n$
(c) $2n + 1$ (d) $2n + 4$
- (7) selection is practised in vegetatively propagated plants.
(a) Mass (b) Pureline
(c) Clonal (d) None of these
- (8) The removal of stamens from female parent is
(a) emasculation (b) hybridization
(c) crossing (d) none of these
- (9) Naturally occurring mutations are called as mutation.
(a) Induced (b) Spontaneous
(c) Artificial (d) None of these
- (10) are used to induce mutations.
(a) Oncogens (b) Mutagens
(c) Teratogens (d) None of these

Theory

2. Describe duplicate gene action with suitable example.

Or

Write notes on :

- (i) Sex determination in insects
(ii) Klinefelter's syndrome.

3. Describe sex-linked inheritance in drosophila with reference to eye colour.

Or

Write notes on :

- (i) Clonal selection
- (ii) Heterosis.

4. Describe male sterility in plants.

Or

Write notes on :

- (i) Pureline selection
- (ii) Acclimatization.