

V Semester B.Sc. Examination, Nov./Dec. 2018

(Semester Scheme) (NS)

(2013-14 and Onwards)

(Repeaters Prior to 2016-17)

BOTANY – VI

Cytology, Genetics and Evolution and Plant Breeding

Time : 3 Hours

Max. Marks : 70

Instructions : 1) Answer **all** Parts.

2) Draw diagrams **wherever** necessary.

PART – A

B.M.S.C.W

A. Answer **any seven** of the following :

(7×2=14)

- 1) What is centromere ?
- 2) Differentiate between monosomy and nullisomy.
- 3) What is seed bank ?
- 4) Define homozygote.
- 5) What are multiple alleles ?
- 6) What is recessive gene ?
- 7) Mention any two objectives of quarantine.
- 8) What is cryopreservation ?
- 9) What is mitochondria ? Mention its function.

PART – B

B. Answer **any six** of the following :

(6×4=24)

- 10) Significance of mitosis.
- 11) Karyotype and ideogram.
- 12) Cutting and Grafting.
- 13) Crossing over.
- 14) Euchromatin and heterochromatin.
- 15) Polyploidy.



- 16) Aims and objectives of plant breeding.
- 17) Incomplete dominance with an example.

PART - C

C. Answer **any four** of the following :

(4x8=32)

- 18) Darwinism.
- 19) Complementary factor inheritance.
- 20) Prophase - I of meiosis.
- 21) Aims and objectives of plant breeding.
- 22) Law of independent assortment with an example.
- 23) Inversion.

BMSCW