

T.Y.B.SC. SEM – VI (2014 Course) : SUMMER - 2019
SUBJECT: BOTANY: PALYNOLOGY AND PLANT BREEDING

Day: Monday
Date: 15/04/2019

Time: 03.00 PM To 05.00 PM
Max. Marks: 40

S-2019-1038

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagram **WHEREVER** necessary.

Q.1 Attempt **ANY TWO** of the following: **(10)**

- a) What is polyploidy? Give their character and types.
- b) Comment on pollen germination with their significance.
- c) Describe clonal selection and give their advantages and disadvantages in method of plant improvement.

Q.2 Attempt **ANY TWO** of the following: **(10)**

- a) Describe genetic variation in crop improvement.
- b) What is hybridization? Give various steps and its advantages.
- c) Comment on apomixes with their suitable examples.

Q.3 Attempt **ANY TWO** of the following: **(10)**

- a) Give morphological characters of pollen with reference to gymnosperms.
- b) Give principles of aeropalynology with reference to microfossils.
- c) What is multipalynology? Give its applications in crop productivity.

Q.4 Attempt **ANY FIVE** of the following: **(10)**

- a) Enlist improved varieties of Rice and Tobacco.
- b) Give significance of plant breeding.
- c) Comment on oil exploration.
- d) Give difference between agropalynology and paleopalynology.
- e) Give importance of palynology.
- f) Explain in brief double cross method.
- g) Comment on Soma cloning.

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