

B.Sc. Semester - 5 (CBCS) Examination**Oct/Nov. - 2018****BIOLOGY OF SEED PLANTS (CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Q-1(A) Answer any one question in detail (07)
- (1) Reproductive structure of *Ephedra*
 - (2) Reproductive structure of *Gnetum*
- Q-1(B) Shortly answer any one question (04)
- (1) Describe the leaf anatomy of *Ephedra*
 - (2) Describe the leaf anatomy of *Gnetum*
- Q-1(C) Answer the following question very shortly (any three) (03)
- (1) *Ephedra* belongs to which division?
 - (2) The morphological identification of *Gnetum* without flowering branch, can be placed under _____
 - (3) The fossil, *Pentaxylon* was discovered from which place of India?
 - (4) In which fossil plant stem was covered by persistent leaf base as we find in *Cycas*
 - (5) Which fossil group formed the basis of Anthostrobilus theory of origin of angiosperm?
- Q-2(A) Answer any one question in detail (07)
- (1) Write down detail note on concept of family.
 - (2) Describe the principles of taxonomy.
- Q-2(B) Shortly answer any one question (04)
- (1) Give the merits of Bentam and Hooker classification system.
 - (2) Give the demerits of Bentam and Hooker classification system.
- Q-2(C) Answer the following question very shortly (any three) (03)
- (1) What is taxonomy?
 - (2) Define genus
 - (3) Define species
 - (4) When neotype is designated in classification system?
 - (5) Binomial scientific names become trinomial when _____
- Q-3(A) Answer any one question in detail (07)
- (1) Give general characteristics of Capparidaceae family with floral formula and diagram also give the two examples of plants belonging to family.
 - (2) Give general characteristics of Rosaceae family with floral formula and diagram also give the two examples of plants belonging to family.
- Q-3(B) Shortly answer any one question (04)
- (1) Give floral formula and diagram of Lythraceae family with two scientific names of plants belonging to family.
 - (2) Give floral formula and diagram of Tiliaceae family with two scientific names of plants belonging to family.

- Q-3(C) Answer the following question very shortly (any three) (03)
- (1) Staminal corona enclosing the style and pentangular stigma are characteristic of family_____.
 - (2) Give the name of a parasitic twineer plant belonging to Convolvulaceae family.
 - (3) Give the family name belongs to calyciflorae series.
 - (4) *Spilanthes acmella* plant belongs to which family.
 - (5) Only one vertical section passing through its centre divides it into equal vertical halves than flower is said to be _____
- Q-4(A) Answer any one question in detail (07)
- (1) Give general characteristics of Cypraceae family with floral formula and diagram also give the two examples of plants belonging to family.
 - (2) Give general characteristics of Polygonaceae family with floral formula and diagram also give the two examples of plants belonging to family.
- Q-4(B) Shortly answer any one question (04)
- (1) Give floral formula and diagram of Bignoneaceae family with two scientific names of plants belonging to family.
 - (2) Give floral formula and diagram of Amaranthaceae family with two scientific names of plants belonging to family.
- Q-4(C) Answer the following question very shortly (any three) (03)
- (1) Fibrous root systems are found in _____ family?
 - (2) The cotyledon of monocot (grasses) is generally called?
 - (3) Give the scientific name of solanaceae plant **Bhoi Ringani**.
 - (4) Give the scientific name of the plant come under Canaceae.
 - (5) Give the scientific name of medicinal plants of Asclepdaceae family.
- Q-5(A) Answer any one question in detail (07)
- (1) Discuss the embryo development in dicotyledons.
 - (2) Discuss the embryo development in monocotyledons.
- Q-5(B) Shortly answer any one question (04)
- (1) Discuss types of endosperms.
 - (2) State the functions of endosperm.
- Q-5(C) Answer the following question very shortly (any three) (03)
- (1) The first division of zygote in angiospermic plant is always_____.
 - (2) Types of embryogenesis in *Capsella* is _____.
 - (3) In _____ type of embryogeny the apical cell of two celled proembryo divides transversily, the basal cell plays only a minor role and usually form a suspensor.
 - (4) State the wall layers of pollen
 - (5) Give any two factors affecting pollen grain germination.
