

Biyani Girls College

Botany-I

Model test paper-A

Taxonomy and Embryology of Angiosperms

Time allowed: 3hrs

Max.Marks=33

Q1. a) Multiple choice questions:-

14 X 0.5 = 7

1) Indian botanical garden is situated at:

- a) Sibpur, Kolkata b) Lalbagh, Bangalore c) Kufri, Shimla d) None of the above

2.) Type of pollination in *Vallisneria* is

- a) Hydrophily b) Zoophily c) Anemophily d) None of the above

3) Types of ovules in *Opuntia*

- a) Circinotropus b) orthotropus c) anatropus d) none

4) Function of tapetum is

- a) Locomotion b) Respiration c) Nutrition d) Reproduction

5) The author of *Species Plantarum* is:

- a) Engler and Prantl b) Hutchinson c) John Ray d) Carlous Linnaeaus

6) Quinine is extracted from

- a) leaves b) root c) fruit d) bark

7) In which family is Caryopsis fruit found

- a) Poaceae b) Acanthaceae c) Solanaceae d) Apiaceae

8) An example of self pollination is

- a) Maize b) Salvia c) Vallisneria d) Sunflower

9) Fertilized egg is called

- a) Zygote b) Ovule c) Seed d) Embryo

10) Function of suspensor is

- a) Provide nutrition b) give oxygen c) absorb food d) push embryo towards endosperm & provide nutrition

11) Sweet potato is the member of family

- a) Convolvulaceae b) Acanthaceae c) Liliaceae d) Poaceae

12) Anatrochus ovule is found in

- a) Polygonum b) Lathyrus c) Chenopodium d) Brassica

13) Capitulum inflorescence is found in family

- a) Ranunculaceae b) Lamiaceae c) Asteraceae d) Apiaceae

14) Caruncle (aril) is present in the seed of

- a) Castor b) pea c) maize d) cotton

B) Answer the following in brief

(1x6=6)

- Define perianth.
- Write systematic position of family Ranunculaceae
- What is triple fusion
- What is antipodal cell
- Define megasporogenesis
- Write floral formula of Calotropis

UNIT-1

Q2. Write short notes on the following:

(5)

- (i) Primitive characters of Ranunculaceae.
- (ii) Inflorescence in Apiaceae
- (iii) Taxonomic Literature.

OR

Describe the main outline, merits and demerits of System proposed by Bentham & Hooker

UNIT-2

Q3. Write short notes on the following:

(5)

- (i) Cyathium.
- (ii) Botanical name and family of *Sarpgandha*
- (iii) Family and floral formula of *Helianthus*
- (iv) *Peppus*

OR

Explain the floral character of family Lamiaceae. Give its economic importance also.

UNIT-3

Q4. Write short notes on the following: **(5)**

- (i) Microsporogenesis
- (ii) Cross pollination
- (iii) Entry of pollen tube into ovule

OR

Describe various stages of development of female gametophyte in angiosperms.

UNIT-4

Q5. Write short notes on the following: **(5)**

- (i) Parthenocarpy
- (ii) Embryo development in monocots

OR

Explain different types of embryo sacs found in angiosperms with examples.

Biyani Girls College

Botany-I

Model test paper-B

Taxonomy and Embryology of Angiosperms

Time allowed: 3hrs

Max.Marks=33

Q1. a) Multiple choice questions:-

(8 X 0.5 = 4)

1) Taxonomy term was first time used by:

- a) AP de Candolle b) Carolus Linnaeus c) John Ray d) None of the above

2.) In Parthenocarpy fruit is developed from

- a) Pollen grain b) Synergid c) Ovary d) Antipodal

3) Trimerous flower is found in

- a) Hibiscus b) Asphodelus c) Ipomoea d) nigella

4) Stylopodium is present in which family

- a) Poaceae b) Acanthaceae c) Lamiaceae d) Apiaceae

5) What is the standard size of plant press:

- a) 12x18" b) 11.5x17.5" c) 15x25" d) 13x20"

6) When a specific epithet exactly repeats the generic name it is known as

- a) Priority b) Taxa c) Principle d) Tautonyms

7) Alternative name of family Umbelliferae is

- a) Poaceae b) Acanthaceae c) Lamiaceae d) Apiaceae

8) Fruit name found in family Poaceae

- a) Capsella b) Caryopsis c) Silicula d) Achene

B) Answer the following in brief

(1x9=9)

- Write international standard size of herbarium sheet

- Write floral formula of *Ocimum* plant
- What is egg apparatus
- Give botanical name of two oil yielding plants of family Asteraceae
- Define translator
- What do you understand by endosperm haustoria
- What is bi-labiate corolla
- Write economic importance of Poaceae.
- Define Embryogenesis

UNIT-1

Q2. Write short notes on the following: (5)

- (i) Rules of botanical nomenclature
- (ii) Placentation in Ranunculaceae

OR

Describe briefly the salient features of the system of classification proposed by Engler & Prantl. Add a brief note on its merits and demerits.

UNIT-2

Q3. Write family and floral formula of the following genera: (5)

- (i) *Triticum* (ii) *Helianthus* (iii) *Euphorbia* (iv) *Ocimum* (v) *Calotropis*

OR

Explain the floral character of family Poaceae. Give its economic importance also.

UNIT-3

Q4. Write short notes on the following: (5)

- (i) Pollination and its types
- (ii) Self incompatibility

OR

Q2. Write short notes on the following: (5)

(i) Megasporogenesis

(ii) Flower is a modified shoot

UNIT-4

Q5. Write short notes on the following: (5)

(i) Polyembryony

(ii) Embryo development in dicots

OR

Write short notes on the following: (5)

(i) Apomixis

(ii) Types of Endosperms