



# BIOLOGY

## BOOKS - NEET PREVIOUS YEAR (YEARWISE + CHAPTERWISE)

### SEXUAL REPRODUCTION IN FLOWERING PLANTS

**Mcq**

1. Attractants and reward are required for

A. anemophily

B. entomophily

C. hydrophily

D. cleistogamy

**Answer: B**



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**2. A dioecious flowering plant prevents both**

A. autogamy and xenogamy

B. autogamy and geitonogamy

C. geitonogamy and xenogamy

D. cleistogamy and xenogamy

**Answer: B**



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**3. Functional megaspore in an angiosperm develops into**

A. ovule

B. endosperm

C. embryo sac

D. embryo

**Answer: C**



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**4. Double fertilisation is exhibited by**

A. gymnosperms

B. algae

C. fungi

D. angiosperms

**Answer: D**



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5. Which one of the following statements is not true ?

A. Exine of pollen grains is made up of sporopollenin

B. Pollen grains of many species cause severe allergies

C. Stored pollen in liquid nitrogen can be used in the crop breeding programmes

D. Tapetum helps in the dehiscence of anther

**Answer: D**



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6. Seed formation without fertilization in flowering plants involves the process of

A. budding

B. somatic hybridisation

C. apomixis

D. sporulation

**Answer: C**



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7. Proximal end of the filament of stamen is attached to the

A. connective

B. placenta

C. thalamus or petal

D. anther

**Answer: C**



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8. The coconut water from tender coconut represents

- A. fleshy mesocarp
- B. free-nuclear proembryo
- C. free-nuclear endosperm
- D. endocarp

**Answer: C**



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9. Cotyledon of maize grain is called

A. coleorhiza

B. coleoptile

C. scutellum

D. plumule

**Answer: C**



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**10.** Which of the following statements is not correct?

A. Insects that consume pollen or nectar without bringing about pollination are called pollen nectar robbers

B. Pollen germination and pollen tube growth are regulated by chemical components of pollen interacting with those of the pistil

C. Some reptiles have also been reported  
as pollinators in some plant species

D. Pollen grains of many species can  
germinate on the stigma of a flower, but  
only one pollen tube of the same species  
grows into the style

**Answer: D**



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11. In majority of angiosperms

A. egg has a filiform apparatus

B. there are numerous antipodal cells

C. reduction division occurs in the  
megaspore mother cells

D. a small central cell is present in the  
embryo sac

**Answer: C**



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**12.** Pollination in water by hyacinth and water lily is brought about by the agency of:

A. water

B. insects or wind

C. birds

D. bats

**Answer: B**



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**13.** the ovule of an angiosperm is technically equivalent to

- A. megasporangium
- B. megasporophyll
- C. megaspore mother cell
- D. megaspore

**Answer: A**



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**14.** Male gametophyte in angiosperms produces:

- A. two sperms and a vegetative cell
- B. single sperm and a vegetative cell
- C. single sperm and two vegetative cells
- D. three sperms

**Answer: A**



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15. The wheat grain/maize grain has an embryo with one, large, shield shaped cotyledon known as:

A. epiblast

B. coleorrhiza

C. scutellum

D. coleoptile

**Answer: C**



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**16.** Which one of the following fruits is parthenocarpic?

A. Brinjal

B. Apple

C. Jackfruit

D. Banana

**Answer: D**



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17. Filiform apparatus is characteristic feature of

- A. Generative cell
- B. Nuceller embryo
- C. Aleurone cell
- D. Synergids

**Answer: D**



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**18.** In angiosperms, microsporogenesis and megasporogenesis

A. occur in anther

B. form gametes without further divisions

C. involve meiosis

D. occur in ovule

**Answer: C**



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**19.** Coconut water from a tender coconut is:

- A. immature embryo
- B. free nuclear endosperm
- C. innermost layers of the seed coat
- D. degenerated nucellus

**Answer: B**



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**20.** Geitonogamy involves

A. fertilisation of a flower by the pollen  
from, another flower of the same plant

B. fertilisation of a flower by the pollen  
from the same flower

C. fertilisation of a flower by the pollen  
from a flower of another plant in the  
same population

D. fertilisation of a flower by the pollen  
from a flower of another plant belonging  
to a distant population

**Answer: A**



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**21. Pollen tablets available in market are for**

- A. in vitro fertilisation
- B. breeding programmes
- C. supplementing food
- D. ex situ conservation

**Answer: C**



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**22.** Function of filiform apparatus is to

- A. Recognize the suitable pollen at stigma
- B. Stimulate division of generative cell
- C. Produce nectar
- D. Guide the entry of pollen tube

**Answer: D**



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**23. Megasporangium is equivalent to**

A. embryo sac

B. fruit

C. nucellus

D. ovule

**Answer: D**



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24. Which one of the following statement is correct?

A. Hard outer layer of pollen is called intine

B. Sporogenous tissue is haploid

C. Endothecium produces the microspores

D. Tapetum nourishes the developing pollen.

**Answer: D**



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**25. Advantage of cleistogamy is**

- A. higher genetic variability
- B. more vigorous offspring
- C. no dependence on pollinators
- D. vivipary

**Answer: C**



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**26.** Both, autogamy and geitonogamy are prevented in

A. papaya

B. cucumber

C. castor

D. maize

**Answer: A**



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27. Most resistance biological material is

Or

An organic substance that can withstand environmental extremes and cannot be degraded by any enzyme is

A. cuticle

B. sporopollenin

C. lignin

D. cellulose

**Answer: B**





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**28.** Even in absence of pollinating agents seed-setting is assured in

A. Commelina

B. Zostera

C. Salvia

D. fig

**Answer: A**



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**29.** Filiform apparatus is a characteristic feature of

A. egg

B. synergid

C. zygote

D. suspensor

**Answer: B**



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**30.** Wind pollination is common in

A. lilies

B. grasses

C. orchids

D. legumes

**Answer: B**



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**31.** Nucellar polyembryony is reported in species of

A. Gossypium

B. Triticum

C. Brassica

D. Citrus

**Answer: D**



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**32.** In which one of the following pollination is autogamous or Pollination which occurs in closed flower is known as

A. Xenogamy

B. Chasmogamy

C. Cleistogamy

D. Geitonogamy

**Answer: C**



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**33.** Apomictic embryos in citrus arise from

A. synergids

B. maternal sporophytic tissue in ovule

C. antipodal cells

D. diploid egg

**Answer: B**



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**34.** The scutellum observed in a grain of wheat or maize is comparable to which part of the seed in other monocotyledons

- A. Cotyledon
- B. endosperm
- C. Aleurone layer
- D. plumule

**Answer: A**



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**35.** Wind pollinated flowers are

A. small, brightly coloured, producing large number of pollen grains

B. small, producing large number of dry pollen grains

C. large, producing abundant nectar and pollen

D. small, producing nectar and dry pollen

**Answer: B**

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**36.** Which one of the following is resistant to any action

A. Cork

B. Wood fibre

C. Pollen exine

D. Leaf cuticle

**Answer: C**



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37. Unisexuality of flowers prevents

- A. autogamy, but not geitonogamy
- B. both geitonogamy and xenogamy
- C. geitonogamy, but not xenogamy
- D. autogamy and geitonogamy

**Answer: A**



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**38.** Which one of the following pairs of plant structures has haploid number of chromosomes?

A. Megaspore mother cell and antipodal cells

B. Egg cell and antipodal cells

C. Nucellus and antipodal cells

D. Egg nucleus and secondary nucleus

**Answer: B**



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**39.** Endosperm is consumed by developing embryo in the seed of

A. coconut

B. castor

C. pea

D. maize

**Answer: C**



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**40.** Male gametes in angiosperms are formed by the division of

A. microspore

B. generative cell

C. vegetative cell

D. microspore mother cell

**Answer: B**



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**41.** Which one of the following is surrounded by a callose wall

A. Microspore mother cell

B. Male gamete

C. Egg

D. Pollen grain

**Answer: A**



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**42.** The arrangement of the nuclei in a normal embryo sac in the dicot plants is

A.  $3 + 2 + 3$

B.  $2 + 3 + 3$

C.  $3 + 3 + 2$

D.  $2 + 4 + 2$

**Answer: A**



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**43.** What would be the number of chromosomes in the cells of the aleuron layer in a plant species with 8 chromosomes in its synergids?

A. 24

B. 32

C. 8

D. 16

**Answer: A**



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**44.** Which one of the following represents an ovule, where the embryo sac becomes horse shoe-shaped and the funiculus and micropyle are close to each other?

- A. Amphitropous
- B. Circinotropous
- C. Atropous
- D. Anatropous

**Answer: A**



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**45.** In a type of apomixis known as adventitious embryony embryos develop directly from the

A. nucellus or integuments

B. zygote

C. synergids or antipodals in an embryo sac

D. accessory embryo sac in the ovule

**Answer: A**



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**46.** Through which cell of the embryo sac, does the pollen tube enter the embryo sac

- A. egg cell
- B. persistant synergid
- C. degenerated synergid
- D. central cell



**Answer: C**



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**47.** An ovule which becomes curved so that the nucellus and embryo sac lie at right angles to the funicle is

A. hemitropous

B. campylotropous

C. anatropous

D. orthotropous

**Answer: A**



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**48.** In flowering plants archesporium gives rise to

- A. only tapetum and sporogenous cells
- B. only the wall of the sporangium
- C. both wall and the sporogenous cells
- D. wall and the tapetum

**Answer: C**



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**49.** Which type of association is found in between entomophilous flower and pollinating agent ?

- A. Mutualism
- B. Commensalism
- C. Cooperation
- D. Co-evolution

**Answer: A**



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**50.** In angiosperms pollen tubes liberate their male gametes into the

- A. central cell
- B. antipodal cell
- C. egg cell
- D. synergid

**Answer: D**



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**51.** What is the direction of micropyle in anatropous ovule?

A. Upward

B. Downward

C. Right

D. Left

**Answer: B**



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**52.** In angiosperm, all 4 microspores of tetrad are covered by a layer which is formed by

A. pectocellulose

B. callose

C. cellulose

D. sporopollenin

**Answer: B**



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**53.** Adventive embryony in Citrus is due to

- A. nucellus
- B. integuments
- C. zygotic embryo
- D. fertilised egg

**Answer: A**



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**54.** Anemophily type of pollination is found in

A. Salvia

B. bottle brush

C. Vallisneria

D. coconut

**Answer: D**



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**55.** Eight nucleate embryo sacs are

A. always tetrasporic

B. always monosporic

C. always bisporic

D. sometimes monosporic, sometimes  
bisporic and sometimes tetrasporic

**Answer: D**



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**56.** Double fertilisation leading to initiation of endosperm in angiosperms require

A. fusion of one polar nucleus and the second male gamete only

B. fusion of two polar nuclei and the second male gamete

C. fusion of four or more polar nuclei and the second male gamete only

D.all of the above kinds of fusion in  
different angiosperms

**Answer: B**



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**57.** Flowers showing ornithophily show few  
characteristics like

A. blue flower with nectaries at base of  
corolla

B. red sweet scented flower with nectaries

C. bright red flower into thick inflorescence

D. white flowers with fragrance

**Answer: B**



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**58.** How many pollen grains will be formed after meiotic division in 10 microspores mother cells?

A. 10

B. 20

C. 40

D. 80

**Answer: C**



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**59.** In angiosperms, triple triple fusion is required for the formation of

A. embryo

B. endosperm

C. seed coat

D. fruit wall

**Answer: B**



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**60.** In an angiosperm, how many microspore mother cells are required to produce 100 pollen grains?

A. 25

B. 50

C. 75

D. 100

**Answer: A**



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**61.** Fertilization involving carrying of male gametes by pollen tube is

A. porogamy

B. siphonogamy

C. chalazogamy

D. syngonogamy

**Answer: B**



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**62.** Chief pollinators of agricultural crops are

A. butterflies



B. bees

C. moths

D. beetles

**Answer: B**



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**63.** Double fertilization and triple fusion were discovered by

A. Hofmeister

B. Nawaschin and Guignard

C. Leeuwenhoek

D. Strasburger

**Answer: B**



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**64.** Ovule is straight with funiculus, embryo sac, chalaza and micropyle lying on one straight line. It is

A. orthotropous

B. anatropous

C. campylotropous

D. amphitropous

**Answer: A**



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**65.** Number of meiotic divisions required to produce 200/400 seeds of Pea would be

A. 200 / 400

B. 400 / 800

C. 300 / 600

D. 250 / 500

**Answer: D**



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**66.** Study of formation, growth and development of new individual from an egg is

A. apomixis

B. embryology

C. embryogeny

D. cytology

**Answer: B**



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**67.** Meiosis is best observed in dividing

A. cells of apical meristem

B. cells of lateral meristem

C. microspores and anther wall

D. microsporocytes

**Answer: D**



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**68.** Double fertilisation is fusion of

A. two eggs

B. two eggs and polar nuclei with pollen nuclei

C. one male gamete with egg and other with synergid

D. one male gamete with egg and other with secondary nucleus

**Answer: D**



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**69.** Point out the odd one

A. nucellus

B. embryo sac

C. micropyle

D. pollen grain

**Answer: D**



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**70.** Embryo sac occurs in

- A. embryo
- B. axis part of embryo
- C. ovule
- D. endosperm

**Answer: C**



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**71. Pollination occurs in**

- A. bryophytes and angiosperms
- B. pteridophytes and angiosperms
- C. angiosperms and gymnosperms
- D. angiosperms and fungi

**Answer: C**



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72. Female gametophyte of angiosperms is represented by

A. ovule

B. megaspore mother cell

C. embryo sac

D. nucellus

**Answer: C**



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**73.** Entry of pollen tube through micropyle is

A. chalazogamy

B. mesogamy

C. porogamy

D. pseudogamy

**Answer: C**



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74. Male gametophyte of angiosperms/monocots is

A. microsporangium

B. nucellus

C. microspore

D. stamen

**Answer: C**



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75. Generative cell was destroyed by laser but a normal pollen tube was still formed because

A. vegetative cell is not damaged

B. contents of killed generative cell stimulate pollen growth

C. laser beam stimulates growth of pollen tube

D. the region of emergence of pollen tube is not harmed

**Answer: A**



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**76.** Development of an organism from female gamete/egg without involving fertilisation is

A. adventitive embryony

B. polyembryony

C. parthenocarpy

D. parthenogenesis

**Answer: D**



77. Nucellus embryo is

- A. amphimictic haploid
- B. amphimictic diploid
- C. apomictic haploid
- D. apomictic diploid

**Answer: C**





**78.** Formation of gametophyte directly from sporophyte without meiosis is.

A. apospory

B. apogamy

C. parthenogenesis

D. amphimixis

**Answer: A**



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**79.** Total number of meiotic division required for forming 100 zygotes/100 grains of wheat is

A. 100

B. 75

C. 125

D. 50

**Answer: C**



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**80.** Male gametophyte of angiosperms is shed as

- A. four-celled pollen grain
- B. three-celled pollen grain
- C. microspore mother cell
- D. anther

**Answer: B**



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