



### **BIOLOGY**

### **NEET & AIIMS**

### Mock test 28



**1.** Which of the following plants prevent autogamy but not geitonogamy?

### A. Vallisneria

- B. papaya
- C. castor
- D. cannabis

#### Answer: C



### 2. Read the following statements w.r.t.

outbreeding devices.

Discourage self pollination.

Prevent loss in genetic variation. Different placement of anther and stigma which prevents autogamy is referred as dichogamy. Failure of pollen grain's germinatioin in bisexual or monoecious plants is a genetically controlled mechanism.

select the correct option.

A. a, b & c

B. a, b, c & d

C. b, c & d

D. a, b & d

#### Answer: D



3. Which of the following are protandrous and protogynons flowers, respectively?

A. Sunflower & cotton

**B. Ficus & Aristolochia** 

C. Cotton and Ficus

D. Ficus ?& sunflower





## 4. Which of the following is observed in casuarina?

A. Mesogamy

B. Chalazogamy

C. Porogamy

D. More than one option is correct





### 5. Who observed pollen tube in portulaca for the first time

- A. S.G. Nawaschim
- B. Guignard
- C. Strasburger
- D. G.B. Amici

#### Answer: D



### 6. in which of the following plants, triple fusion and double fertillization was discovered?

- A. Portulaca & Cucurbit
- **B. Lillium & Fritillaria**
- C. Triticum & Lily
- D. Fritillaria & Colocasia

#### Answer: B



7. Fusion of male gamete and definitive nucleus results in the formation of

A. Primary endosperm cell

B. Primary endosperm nucleus

C. Zygote

D. Secondary nuclei





# 8. Select the correct option w.r.t. plant with cellular mode of endosperm development.

A. Cotton

B. Maize

C. Groundnut

D. Petunia





### 9. Select the odd one out w.r.t. ex-albuminous

seed.

A. Groundnut

**B. Beans** 

C. Barley

D. Pea





# 10. Which of the following plants have stony endosperm?

- A. Castor and groundnut
- B. Areca nut and phoenix dactyiifera
- C. Wheat and coconut
- D. Barley and date palm





11. Select the odd one out w.r.t. ruminate endosperm.

A. Maize

**B.** Passiflora

C. Annona

D. Myristica





### 12. Who discovered effect of foreign pollen on

somatic tissue present outside the

endosperm?

- A. Strasburger
- B. Focke
- C. Swingle
- D. Guignard





### 13. Xenia effect was first observed in

A. Wheat

- **B. Groundnut**
- C. Pea
- D. Maize

**Answer: D** 



# 14. Which among the following plant has diploid endosperm?

A. Betal nut

B. Oenothera

C. Date palm

D. Phoenix

Answer: B





# 15. The structure of flower which forms pericarp in true fruit is

A. Thalamus

- **B.** Outer integument of ovule
- C. Stalk
- D. Wall of ovary

### Answer: D

16. In dicotyledonous embryo, the cylindrical portion below the level of cotyledons which terminates into root tip is

A. Hypocotyle

**B. Epicotyle** 

C. Plumule

D. Redicle

Answer: A

### 17. In grass family, the cotyledon is called:

A. Scutellum

B. Proembryo

C. Procambium

D. Dermatogen

Answer: A

18. one of the examples of seeds in which the endosperm is completely consumed during embryo development is

A. Pea

B. Maize

C. Wheat

D. Sunflower

Answer: A

19. Which of the following conditions show that the embryo of a seed is entering the state of dormancy? Dry weight of seed is increasing

Watercontent is reducing.

The general metabolic activity of embryo is slowing down.

oxygen consumption of seed is increasing.

A. A and b only

B. A,B and D

C. B and D only

D. B and C only

Answer: D

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20. Plants developed from apomictic embryos of a plant are

A. Genetically different to each other

B. Morphologically similar to each other

but genetically different from parent

plant

### C. Different to each other w.r.t. their ploidy

D. Genetically identical to each other as

well as to their parent

Answer: D

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21. After double fertilization, most zygotes

divide only after certain amount of endosperm

is formed. One of the importance of this adaptation is A. To push the developing embryo out of

the micropyle

B. To prevent the developing zygote from

being divided into many embryos

C. To provide assured nutrition to the

developing embryo

D. To provide sufficient space for developing embryo by dissolving outer

### and inner integuments of ovule

Answer: C

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# 22. The first cell of suspensor towards micropyle is called

A. Vesicular cell

**B. Hausrorial cell** 

C. Hypophysis

D. Both (1) & (2)

Answer: D

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### 23. The remains of second cotyledon occur in some grasses it is called

A. Scutellum

**B. Epiblast** 

C. Coleoptile

D. Hypocotyle

Answer: B

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24. In some plants, megaspore mother cell does not divide by meiotic division, instead from an unreduced embryosac, containing diploid egg cell. This condition is referred as

A. Sporophytic budding

### B. Polyembryony

#### C. Recurrent agamospermy

D. Parthenocarpy

Answer: C

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### 25. Which one of the following plants have

many seeds in their fruits?

A. Orchid and striga

### B. Orobanche and orchid

### C. Mango and banana

D. both (1) & (2)

Answer: D

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26. Which one is mismatched?

A. true fruit -Mango

B. False fruit -cashewnut

### C. Parthenocarpic fruit -Banana

### D. Fleshy fruit -Mustard

Answer: D

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27. The oldest seed of Lupinus arcticus excavated from arctic Tundra was germinated and flowered after an estimated record of —— — of domancy. A. 2,000 years

B. 10,000 years

C. 20,000 years

D. 1,00,000 years

**Answer: B** 

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28. Sporophytic budding is found in

### A. Citrus

**B.** Pear

### C. Apple

D. Both (2) & (3)

Answer: A

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### 29. Which of the following cell undergoes first

meiotic division during spermalogenesis?

A. Spermatogonium

- B. Primary spermatocyte
- C. Secondary spermatocyte
- D. Spermatid

Answer: B

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30. Milk secreted by the alveoli of mammary

lobes travels through the following structures

to the exterior.

Lactiferous duct

**Mammary ducts** 

Mammary ampulla

**Mmmary tubule** 

identify the correct sequence.

A. 1 - 2 - 3 - 4 B. 2 - 4 - 3 - 1 C. 4 - 3 - 2 - 1 D. 4 - 2 - 3 - 1

Answer: D



31. Spermatidus are transformed into spermatozoa by the process of

A. Spermiogenesis

**B. Spermiation** 

C. Spermatogenesis

D. Spermatolysis

Answer: A

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32. Which of the following represents the correct number of chromosomes in various cell that are mentioned below?

A. 23 - 23 - 23 - 23

B. 46 - 23 - 23 - 23

C. 46 - 23 - 23 pairs - 23

D. 23 pairs - 23 pairs - 23 - 23

Answer: D

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33. Which of the following provides energy for

the movement of sperm in mammals?

A. Tail only

**B. Middle priece only** 

C. Head only

D. Tail and middle piece

Answer: B

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34. Which of the following structures in sperm

helps in the first cleavage of a fertillised egg?

A. Proximal centriole

**B. Distal centriole** 

C. Acrosome

D. Both (1) & (2)

Answer: A

35. At puberty total number of primary follicles

in each ovary of human female is about

A. 80000

**B. 600000** 

**C. 160000** 

D. 1600000

**Answer: A** 

36. Which of the following is a component of

secondary follicle?

A. Theca interna

B. Secondary oocyte

C. Cumulus oophorus

D. Primary oocyte

Answer: D

37. Zona pellucida is secreted by

A. Primary oocyte

B. Secondary ooctye

C. Corona radiata

D. Ootid

Answer: B



38. First meiotic division of oocyte is completed in

A. Primary follicle

B. Secondary follicle

C. Tertiary follicle

D. Graafian follicle

Answer: C

39. Choose the correct math w.r.t. nenstrual cycle.

A. Follicular phase - Low concentration of

estrogen

B. Secretory phase - Low concentration of

progesterone

C. Luteal phase - Shedding of endometrial

lining

D. Proliferative phase \_ Increase in

thickness of endometrium lining





## 40. Second meiotic division during oogenesis is completed in

- A. Ovary
- B. Graafian
- C. Fallopian tube
- D. Tertiary follicle





## 41. Secondary oocyte formation occurs in

- A. Secondary follicle
- **B. Graafian follicle**
- C. Fallopaians tube
- D. Uterus

Answer: B



## 42. Which of the following is an example of

## monoestrous animal?

A. Mouse

**B. Squirrel** 

C. Horse

D. Bat

Answer: D





43. Which of the following is diploid?

A. Primary oocyte

B. oogonium

C. Secondary oocyte

D. Both (1) & (2)

Answer: D

44. Which of the following is secreted by follicular cells during proliferative phase?

A. Estrogen

B. Inhibin

C. FSH

D. Both (1) & (2)

Answer: D

45. Choose the correct match.

A. LH - Corpus luteum

- B. Estrogen Ovarian follicle
- C. Progesterone Zona pellucida
- D. FSH Ovary

Answer: B

