

1. During development of male gametophyte from pollen mother cell, there occurs
  - (a) Two meiotic divisions and one mitotic division
  - (b) Two mitotic divisions
  - (c) One meiotic and two mitotic division
  - (d) One meiotic cell division and one mitotic cell division
2. Male gametes are formed by
  - (a) Pollen cell
  - (b) Generative cell
  - (c) Pollen tube cell
  - (d) Pollen mother cell
3. Largest pollen grain is found in-
  - (a) *Halophila*
  - (b) *Myosotis*
  - (c) *Mirabilis*
  - (d) *Lodoicea*
4. Number of prothallial cells in male gametophyte of Angiospermic plant is
  - (a) 0
  - (b) 2
  - (c) 3
  - (d) 1
5. Which of the following is diploid
  - (a) Egg
  - (b) Synergids
  - (c) Antipodal cells
  - (d) Secondary nucleus
6. An orthotropous ovule is one, in which micropyle and chalaza are
  - (a) At right angles to funicle
  - (b) Parallel to the funicle
  - (c) In straight line of funicle
  - (d) Parallel along with ovule
7. The normal or polygonum type of embryo sac is
  - (a) Monosporic and eight nucleate
  - (b) Tetrasporic and six nucleate
  - (c) Monosporic and four nucleate
  - (d) Bisporic and eight nucleate
8. The function of endothelium is
  - (a) It protects ovule from toxic substances
  - (b) It helps in fertilization
  - (c) It provides nutrition to embryosac
  - (d) It takes part in desiccation of Anther
9. Placental or funicular outgrowth present at the micropylar end that directs the passage of pollen tube in to the ovule is
  - (a) Aril
  - (b) Caruncle
  - (c) Obturator
  - (d) Raphe
10. A root cell of an angiospermic plant has  $2n = 24$  chromosomes. What will no of chromosomes in nucellus cell
  - (a) 12
  - (b) 36
  - (c) 24
  - (d) 18
11. Ovule turns at more than  $360^\circ$  angle is due to excessive growth of funicle in

- (a) Campylotropous ovule
- (b) Anatropous ovule
- (c) Orthotropous ovule
- (d) Circinotropous ovule

12. In which of the following plant, the number of ovules in an ovary may be more than one in

- (a) Wheat
- (b) Paddy
- (c) Papaya
- (d) Mango

13. Polar nuclei are located in-

- (a) Pollen tube
- (b) Embryo sac
- (c) Ovule
- (d) Thalamus

14. The ovule of *capsella* is-

- (a) Bitegmic
- (b) Unitegmic
- (c) Ategmic
- (d) Polytegmic

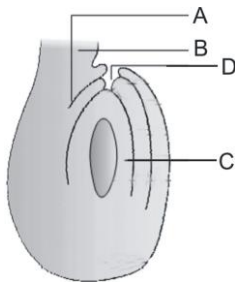
15. In the embryo sac of *Oenothera* no. of antipodal cells are-

- (a) Three
- (b) One
- (c) Two
- (d) None

16. Caruncle is derived from-

- (a) Peduncle
- (b) Cotyledon
- (c) Integument
- (d) none of these

17. The given figure shows a typical anatropous ovule. What do A, B, C & D represents.



- (a) A →Hilum, B →Funicle, C →Nucellus, D →Micropyle
- (b) A →Hilum, B →Outer integument, C →Nucellus, D →Micropyle
- (c) A →Hilum, B →Outer integument, C →Embryosac, D →Micropyle
- (d) None of these

18. In Angiosperms, the functional megaspore of a linear tetrad is the -

- (a) First nearest to the micropyle
- (b) Second from the micropyle
- (c) Third from the micropyle
- (d) Fourth from the micropyle

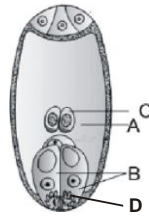
19. The megasporangium of the angiosperms on maturation gives rise to-

- (a) Fruit
- (b) Seed
- (c) Embryo
- (d) Cotyledon

20. Bisporic type of embryo sac is found in-

- (a) *Polygonum*                      (b) *Oenothera*  
 (c) *Adoxa*                              (d) *Allium*

21. The given figure shows a mature embryo sac. What do A, B, C & D represents.



- (a) A →Embryosac, B →Synergids, C →Central cell, D →Micropylar end  
 (b) A →Central cell, B →Synergids, C→Polar nuclei, D→Micropylar end  
 (c) A →Synergids, B →Polar nuclei, C →Central cell, D →Filiform apparatus  
 (d) A →Central cell, B →Synergids, C→Polar nuclei, D →Filiform apparatus

22. The site of meiotic division in higher plants is

- (a) Vegetative buds              (b) Root tip cells  
 (c) Stomatal cells                (d) Spore mother cells

23. How many cells are present in the female gametophyte of *Capsella* before fertilization

- (a) 3                                      (b) 6  
 (c) 7                                      (d) Many

24. What will be the ploidy of nucellus, endosperm, female gametophyte and antipodal cells.

- (a) 2n, 3n, n, n                      (b) n, 3n, 2n, n  
 (c) 2n, 3n, 2n, n                      (d) 3n, 2n, n, n

25. Pollen grain represents

- (a) Female gametophyte  
 (b) Male gametophyte  
 (c) Sporophyte  
 (d) Anther

26. Most reduced sized gametophyte is of

- (a) Bryophyte  
 (b) Pteridophyte  
 (c) Gymnosperm  
 (d) Angiosperm

27. Main function of endothecium (in anther) is :-

- (a) Mechanical  
 (b) Nutritive  
 (c) Dehiscence  
 (d) Storage

28. What type of ovule is found in Capsella-

- (a) Orthotropous
- (b) Campylotropous
- (c) Anatropous
- (d) Hemitropous

29. Perisperm is

- (a) Persistent nucellus in seed
- (b) Ovule wall
- (c) Ovule coat
- (d) Fossil of haustoria

30. The special features of the endothecium of anther of Capsella :-

- (a) Radially elongated cells
- (b) Thickening of  $\alpha$ -cellulose
- (c) Hygroscopic
- (d) All of the above

1. (c)
2. (b)
3. (c)
4. (a)
5. (d)
6. (c)
7. (a)
8. (c)
9. (c)
10. (c)
11. (d)
12. (c)
13. (b)
14. (a)
15. (d)
16. (c)
17. (a)
18. (d)
19. (b)
20. (d)
21. (d)
22. (d)
23. (c)
24. (a)
25. (b)
26. (d)
27. (c)
28. (b)
29. (a)
30. (d)