NEET : CHAPTER WISE TEST-1

SUBJECT :- BIOLOGY **DATE.....**
CLASS :- 12th **NAME.....**
CHAPTER :- SEXUAL REPRODUCTION IN FLOW. PLANTS **SECTION.....**

(SECTION-A)

1. A typical angiospermic flower consist of
(A) Four essential and fertile whorls
(B) Two essential and two accessory whorls
(C) There nonessential and one accessory whorl
(D) There nonessential and one essential whorl

2. A typical anther is bilobed and tetrasporangiate. It ischaracterized with all these features, except
(A) Surrounded by four wall layers
(B) Two microsporangia in each lobe
(C) Sporogenous tissues at the center of each microsporangia
(D) One pollen sac in each lobe

3. All are features related to tapetal cells, except
(A) Dense cytoplasm
(B) Multinucleate
(C) Polyploid
(D) Have little DNA content

4. The outer three layers of anther wall broadly perform the function of
(A) Protection only
(B) Dehiscence and nutrition
(C) Protection and dehiscence of anther
(D) Nutrition and protection

5. Role of tapetum in pollen development is all except
(A) Provides nutrition to developing pollen grains
(B) Secretes sporopollenin, pollen kit, and compatibility proteins
(C) Contribution of callase enzyme for separation of pollens from microspore tetrad
(D) Helps in release of pollen grains

6. In the fully developed male gametophyte, the number of nuclei is
(A) One (B) Two
(C) Three (D) Four

7. Which of the following wall layers of anther plays a predominant role in its dehiscence?
(A) Epidermis (B) Endothecium
(C) Middle layers (D) Tapetum

8. Viability of pollen grain depends on
(A) Genetic constitution of plants
(B) Thickening of sporopollenin in exine of pollen grain
(C) Temperature and humidity
(D) All of the above

9. Pollen grain loses its viability within half an hour of its release in
(A) Cereals such as wheat and rice
(B) Members of family Solanaceae
(C) Members of family Leguminosae
(D) Both (B) and (C)

10. An anther having four microspore mother cells produces the following number of male gametes:
(A) 64 (B) 32
(C) 16 (D) 256

11. Pre-pollination germination of pollen grain is
(A) In-vivo germination
(B) In-vitro germination
(C) Precocious germination
(D) Both (A) and (B)

12. Pistils of Hibiscus flower represent
(A) Multicarpellary apocorpous condition
(B) Multicarpellary syncarpous condition
(C) Monocarpellary condition
(D) Bicarpellary condition

13. Which one of the following is the most primitive type of ovule?
(A) Orthotropous
(B) Anatropous
(C) Circinotropous
(D) Campylotropous

14. Basal part of the ovule is represented by
(A) Hilum (B) Micropyle
(C) Chalaza (D) Nucellus

15. In a majority of angiosperm for the development of fe- male gametophyte, the functional megaspore undergoes how many meiotic and mitotic divisions?
(A) One meiotic and three mitotic divisions
(B) Zero meiotic and two mitotic divisions
(C) Zero meiotic and three mitotic divisions
(D) One meiotic and two mitotic divisions

16. Ovule is technically equivalent to
(A) Megasporangium
(B) Female gametophyte
(C) Megasporophyll
(D) Female gamete

17. Filiform apparatus
(A) Are finger-like projections
(B) Direct the pollen tube growth inside the embryo sac
(C) Are special cellular thickenings present at micropylar tip of synergids
(D) All of the above

18. How many in embryo sac of the angiosperm are surrounded by cell walls?
(A) 8 (B) 7 (C) 6 (D) 4

19. Which of the following structures is not associated with ovule in angiosperm?
(A) Integument (B) Funicle
(C) Micropyle (D) Tapetum

20. In a female gametophyte, ---------- is the mother cell of endosperm.
(A) Egg cell (B) Central cell
(C) Antipodals (D) Synergids

21. How many megaspore mother cells are required to produce 100 polygonum-type embryo sacs?
(A) 25 (B) 50 (C) 100 (D) 75

22. Term pollination signifies
(A) Dehiscence of anther
(B) The transfer of pollen grains from anther to stigma
(C) Formation of pollinia
(D) Opening of floral bud

23. Both chasmogamous and cleistogamous flowers are produced by
(A) Oxalis and Viola
(B) Arachis and Zea mays
(C) Bean and Vallisneria
(D) Commelina and bamboo

24. Identify the following statement as true (T) or false (F), and choose the correct option.
A. Bees are the most common insect pollinating agents.
B. The flower pollinated by flies and beetles secrets foul odors.
C. Plants provide no advantage to insect in terms of rewards.
D. Yucca and Pronuba moth cannot complete their life cycle without each other.
(A) A-T; B-T; C-F; D-T
(B) A-T; B-F; C-F; D-T
(C) A-T; B-F; C-T; D-F
(D) A-F; B-T; C-T; D-F

25. Identify the statements that are true for anemophilous flowers
(a) Pollen grains are light and sticky
(b) They possess large feathery stigma.
(c) They are not very colorful and do not produce nectar.
(d) They have many ovules in each ovary.
(A) (a), (b), and (c) (B) (a), (b), and (d)
(C) (b) and (e) (D) (b), (c), and (d)

26. Outbreeding device which prevents both autogamy and geitonogamy is
(A) Being monoecious as in date palm
(B) Self incompatibility as in tobacco
(C) Being dioecious as in papaya
(D) Being monocliny as in cucumber

27. Contrivance for self-pollination/autogamy is
(A) Homogamy
(B) Bisexuality
(C) Cleistogamy
(D) All of the above

28. Go through the following points:
I. Dicliny II. Dichogamy
III. Self-incompatibility IV. Heterostyly
The above contrivances prevent
(A) Autogamy (B) Xenogamy
(C) Cross-pollination (D) Geitonogamy

29. Even in the absence of pollinating agents, seed setting is assured in
(A) Papaya (B) Cucumber
(C) Salvia (D) Commellina

30. In Vallisneria
(A) Female flowers show long, coiled pedicel
(B) Male flowers are released on the surface of water
(C) Pollen grains are released on the surface of water
(D) All of the above

31. Which of the following is a marine hydrophilous flower?
(A) Vallisneria
(B) Hydrilla
(C) Zostera
(D) Water hyacinth

32. The part of gynoecium that determines the compatible nature of pollen is
(A) Stigma
(B) Style
(C) Ovary
(D) Secondary nucleus of embryo sac

33. Which of the following is a vestigial structure and soon degenerates?
(A) Pollen cytoplasm
(B) Generative cell
(C) Pollen tube
(D) Tube nucleus

34. Which of the following is required for pollen germina- tion?
(A) Malic acid
(B) B-Ca-inositol sugar complex
(C) K^+ and protein
(D) Citric acid

35. Angiosperms differ from other plants of plant kingdom in having
(A) Syngamy
(B) Triple fusion
(C) Double fertilization
(D) Both (B) and (C)

(SECTION-B)

36. Double fertilization was first discovered in 1898 in Lilium and Fritillaria by
(A) Nawaschin (B) Strasburger
(C) Amici (D) Focke

37. Pollen tube after reaching the ovary generally enters the ovule through the
(A) Nucleus (B) Integument
(C) Chalaza (D) Micropyle

38. When pollen tube enters by micropyle, then the process is called
(A) Mesogamy (B) Porogamy
(C) Chalazogamy (D) Pseudogamy

39. Pollen-pistil interaction includes all the events from pollen deposition on stigma until
(A) Pollen tubes are formed
(B) Pollen tube enters the ovary
(C) Pollen tube enters the ovule
(D) Male gametes are formed

40. Pollen tube wall is made up of
(A) Pectocellulose
(B) Hemicellulose and pectin
(C) Sporopollenin ald
(D) Cellulose and sporopollenin

41. By looking into the ploidy of given structures, find the ploidy of ♂ and ♀ plants, respectively. Nucellus: 4N; PEN: 6N
(A) 2N, 4N (B) 4N, 4N
(C) 6N, 2N (D) 4N, 2N

42. The pollen tube is guided to the micropyle end of ovule by
(A) Endothelium (B) Obturator
(C) Style (D) Strophiole

43. Formation of embryo from zygote includes all except
(A) Meiosis
(B) Cell differentiation
(C) Equational division
(D) Mitosis

44. Endosperm development in angiosperms
(A) Proceeds the development of embryo
(B) Is mostly of free nuclear type
(C) Can occur even before fertilization
(D) Both (A) and (B)

45. Dormancy of seed is
(A) State of inactivity
(B) State of activity
(C) Ability to germinate
(D) Viability of seeds

46. Development of endosperm precedes the development of embryo because
(A) Endosperm is haploid
(B) Endosperm is a product of triple fusion
(C) Endosperm is nutritive to developing embryo
(D) It is a pre-fertilization tissue

47. Which of the following is not the adaptive strategy for seed?
(A) Seed cannot be stored for longer duration
(B) Ensure the continuity of race from generation to generation
(C) Have sufficient food reserve for young seedling
(D) Being a product of sexual reproduction, they generate new genetic variations

48. Epiblast in monocot embryo is considered as
(A) Single-celled suspensor
(B) Covering of embryo
(C) Nutritive tissue
(D) Rudimentary cotyledon

49. The crucial feature (s) that help in storage of seeds that can be used as food throughout the year and to raise crops in next season is/are
(A) Dehydration
(B) Dormancy
(C) Dispersal to new habitat
(D) Both (A) and (B)

50. Production of apomictic embryo from cells of nucellus or integument is called
(A) Parthenocarpy
(B) Sporophytic budding
(C) Adventitive embryony
(D) All except (A)