



Combined Class Test (CCT) - 06

NOVEMBER 09, 2017

Test Code : 06

Time allowed : 45 minutes.





Maximum marks : 180.

Instructions

- There will be negative marking.
- For each correct answer 4 marks will be given.
- For each wrong answer 1 mark shall be deducted.
- Name, Batch and NTB I.D. must be written in the answer sheet.

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- Among Lupin, guava, *Tulip*, china rose, plum, brinjal, rose, peach, *Aloe*, petunia and *Trifolium* how many of these plants belong to family liliaceae
(A) Two (B) Three
(C) Four (D) Six.
- In an inflorescence where flowers are borne laterally in an acropetal succession, the position of the oldest floral bud shall be
(A) Proximal
(B) Distal
(C) Anywhere
(D) Intercalary.
- Which is correctly matched with three characteristics?
(A) Makoi-Endospermic seed, valvate aestivation, legume fruit
(B) *Tulip*-Axile placentation, epitepalous condition, endospermic seed
(C) *Indigofera*-Papilionaceous corolla, berry fruit, diadelphous condition
(D) Mustard-Brassicaceae family, four stamens, actinomorphic symmetry.
- Aestivation of petals in the flower of lady's finger are correctly shown in
(A)  (B) 
(C)  (D) 
- Find out the incorrect match about organism and its locomotory organ
(A) *Pleurobrachia* - Comb plates
(B) *Clarias* - Fins
(C) Devil fish - Tentacles
(D) *Ichthyophis* - Limbs.
- Which of the following sets of animals belongs to a single taxonomic group
(A) Rat fish, cat fish, dog fish
(B) Cuttle fish, silver fish, hag fish

- (C) Tapeworm, silkworm, roundworm
(D) All of the above.
- Read the assertion and reason carefully to mark the correct option in question.
(A) If both assertion and reason are true and the reason is the correct explanation of the assertion
(B) If both assertion and reason are true but reason is not the correct explanation of the assertion
(C) If assertion is true but reason is false.
(D) If both assertion and reason are false.
Assertion : Epiphyllous condition is found in the flowers of lily
Reason : In lily, stamens are attached to the perianth.
- If a fruit is formed without fertilisation of ovary, it is called a/ an
(A) Parthenocarpic fruit
(B) Apomictic fruit
(C) Parthenogenetic fruit
(D) False fruit.
- Indigofera*, which is a member of dicot family, is
(A) A source of pulses
(B) Used to extract the blue dye
(C) A source of vegetable
(D) Used as fodder.
- The following figure represents the root system of



- (A) *Triticum* (B) Mango
(C) Banyan (D) *Brassica*.
- Match the Column and select the correct combination

Column I	Column II
(a) Under ground stem	(p) <i>Euphorbia</i>
(b) Stem tendrils	(q) <i>Opuntia</i>
(c) Stem thorn	(r) Potato

- (d) Flattened stem (s) *Citrus*
 (e) Fleshy cylindrical stem (t) *Cucumber*
 (A) a - r, b - t, c - s, d - p, e - q
 (B) a - q, b - r, c - s, d - t, e - p
 (C) a - r, b - s, c - t, d - p, e - q
 (D) a - r, b - t, c - s, d - q, e - p.

12. Which of the following sets of animals shows vivipary

- (A) *Delphinus*, *Columba*, *Testudo*
 (B) *Aptenodytes*, *Calotes*, *Bufo*
 (C) *Macaca*, *Pteropus*, *Balaenoptera*
 (D) *Chelone*, *Pristis*, *Betta*.

13. Which of the following modifications is/are required in reptiles for terrestrial mode of life

- (A) Dry and cornified skin
 (B) Epidermal scales and scutes
 (C) Cleidoic eggs
 (D) All of the above.

14. Read the assertion and reason carefully to mark the correct option in question.

- (A) If both assertion and reason are true and the reason is the correct explanation of the assertion
 (B) If both assertion and reason are true but reason is not the correct explanation of the assertion
 (C) If assertion is true but reason is false.
 (D) If both assertion and reason are false.

Assertion : Orchid is monocotyledonous non-endospermic seed while castor is dicotyledonous endospermic seed.

Reason : In monocotyledonous (wheat and maize) cotyledon is one while in dicotyledonous (gram and pea) there are two cotyledons

15. When the sepals or petals in a whorl just touch one another at the margin without overlapping, the condition is termed as

- (A) Valvate (B) Twisted
 (C) Imbricate (D) Vexillary.

16. Match the columns I, II and III and choose the

correct combination from the options given

Column I Column II Column III



a. 1. *Ornithorynchus* P. Platypus



b. 2. *Macropus* Q. Kangaroo



c. 3. *Pteropus* R. Flying fox



d. 4. *Balaenoptera* S. Blue whale

(A) a-1-P, b-2-Q, c-3-R, d-4-S

(B) a-2-R, b-3-S, c-4-P, d-1-Q

(C) a-1-P, b-2-R, c-3-Q, d-4-S

(D) a-1-P, b-2-Q, c-3-S, d-4-R.

17. In swampy areas like the Sunderbans in West Bengal, plants bear special kind of roots called

- (A) Prop or pillar roots
 (B) Assimilatory roots
 (C) Pneumatophores
 (D) Stilt roots.

18. Vegetative propagation in mint and jasmine occurs by

- (A) Runner (B) Sucker
 (C) Stolon (D) Offset.

19. This fruit is developed by



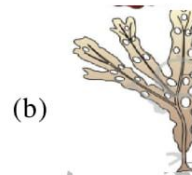
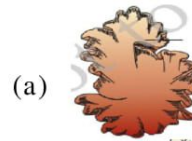
- (A) Monocarpellary inferior ovary
 (B) Monocarpellary superior ovary
 (C) Polycarpellary syncarpous ovary

- (D) Polycarpellary apocarpous ovary.
20. Valvate aestivation is found in the family
(A) Fabaceae (B) Solanaceae
(C) Liliaceae (D) Both B and C.
21. Read the assertion and reason carefully to mark the correct option in question.
(A) If both assertion and reason are true and the reason is the correct explanation of the assertion
(B) If both assertion and reason are true but reason is not the correct explanation of the assertion
(C) If assertion is true but reason is false.
(D) If both assertion and reason are false.
Assertion : Chondrichthyes swim constantly in water body to avoid sinking.
Reason : In chondrichthyes, air bladder is not found.
22. Which of the following processes was discovered by Lederberg and Tatum (1946)
(A) Transduction
(B) Transformation
(C) Asexual reproduction
(D) Conjugation.
23. Which of the following is a xerophytic plant in which the stem is modified into a cylindrical, green and succulent structure
(A) *Acacia* (B) *Opuntia*
(C) *Ruscus* (D) *Euphorbia*.
24. In mustard, the flowers are
(A) Actinomorphic, hypogynous with axile placentation
(B) Actinomorphic, epigynous with parietal placentation
(C) Zygomorphic, hypogynous with marginal placentation
(D) Actinomorphic, hypogynous with parietal placentation.
25. The essential functions of roots are anchorage and absorption of water and minerals in the terrestrial plant. The roots of aquatic plants are associated

with

- (A) Anchorage
(B) Balancing
(C) Both A and B
(D) None of the above.

26. Which of following can be used as food



- (A) a, b (B) b, c
(C) a, b, c (D) a only.

27. The correct floral formula of muliathi is

- (A) $\% \begin{array}{c} \uparrow \\ \text{♀} \end{array} K_{(5)} C_{1+2+(2)} A_{(9)+1} \underline{G}_1$
(B) $\oplus \begin{array}{c} \uparrow \\ \text{♀} \end{array} K_{(5)} C_{(5)} \overline{A}_5 \underline{G}_{(2)}$
(C) $\text{Br} \oplus \begin{array}{c} \uparrow \\ \text{♀} \end{array} P_{(3+3)} \overline{A}_{3+3} \underline{G}_{(3)}$
(D) $\% \begin{array}{c} \uparrow \\ \text{♀} \end{array} K_{2+2} C_4 A_{2+4} \underline{G}_{(2)}$

28. Read the assertion and reason carefully to mark the correct option in question.

- (A) If both assertion and reason are true and the reason is the correct explanation of the assertion
(B) If both assertion and reason are true but reason is not the correct explanation of the assertion
(C) If assertion is true but reason is false.
(D) If both assertion and reason are false.

Assertion : Generally, dicotyledonous plants have tap roots and reticulate venation while monocoty-

ledonous plants have fibrous roots and parallel venation

Reason : The morphological feature of stem like the presence of nodes and internodes, multicellular hair and positively phototropic nature help to differentiate the stems from roots

29. Match the columns

Column I	Column II
a Planula	p Annelida
b Tornaria	q Mollusca
c Trochophore	r Arthropoda
d Bipinnaria	s Hemichordata
e Glochidium	t Echinodermata
	u Coelenterata

(A) a - u, b - s, c - p, d - t, e - q

(B) a - q, b - t, c - p, d - s, e - u

(C) a - t, b - s, c - r, d - q, e - p

(D) a - s, b - r, c - q, d - p, e - t.

30. Consider the following four statements a, b, c and d and select the right option for two correct statements

- (a) In gram, keel encloses the sex organs-stamens and pistil.
- (b) In tobacco gynoecium, placenta is swollen with single ovule
- (c) In *Asparagus* gynoecium is tricarpellary and trilocular
- (d) Leaf is a lateral outgrowth of stem developed endogeneously at the node

The correct statements are

- (A) b and d
- (B) a and c
- (C) c and d
- (D) a and b.

31. Among mustard, muliathi, watermelon, soyabean, pumpkin, ashwagandha, *Asparagus*, brinjal, *Allium*, *Trifolium*, Rose, *Indigofera*, bitter gourd, plum, cucumber, arhar and peach how many plants have hypogynous flowers

- (A) Three
- (B) Ten
- (C) Four
- (D) Eleven.

32. Maize/ wheat grain is actually a

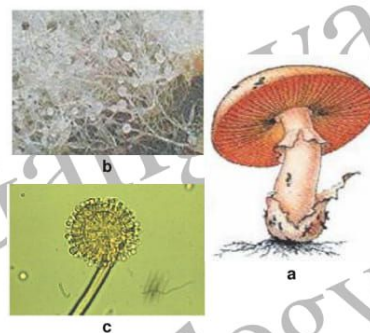
- A (A) Fruit
- (B) Seed
- (C) Embryo
- (D) Cotyledon.

33. Which of the following is / are osteichthyes

- a. *Pterophyllum*
- b. *Carcharodon*
- c. *Balaenoptera*
- d. Sting ray
- e. Dog fish
- f. Magur
- g. *Exocoetus*
- h. Fighting fish

- D (A) a, b, g, h
- (B) e, c, f, h
- (C) a, f, g, d
- (D) g, a, f, h.

34. Recognise the figure and find suitable option



- (1) 'b' and 'c' belongs to same clas of kingdom fungi
- (2) All three 'a', 'b' and 'c' belongs to different classes of fungi
- (3) 'a' is parasitic while 'b' and 'c' are symbiotic fungi
- (4) Mycelium of 'b' is aspetate and coenocytic while 'a' and 'c' have septate and branched mycelium.

Of these how many statements are correct

- B (A) One
- (B) Two
- (C) Three
- (D) Four.

35. Read the assertion and reason carefully to mark the correct option in question.

- (A) If both assertion and reason are true and the reason is the correct explanation of the assertion
- (B) If both assertion and reason are true but reason is not the correct explanation of the assertion
- (C) If assertion is true but reason is false.

(D) If both assertion and reason are false.

Assertion : The position of mother axis with respect to the flower is represented by a dot on the top of the floral formula

Reason : The fabaceae family was earlier called Leguminosae, a subfamily of family papilionoidae.

36. Which of the following statements in correct?

- (A) Placentation in *Primrose* is basal
- (B) Flower of pea is a modified shoot
- (C) *Petunia* is a medicinal plant
- (D) Orchid seed are endospermic.

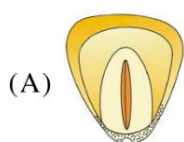
37. Racemose inflorescence is present in

- (A) *Solanum* (B) *Sesbania*
- (C) *Allium* (D) All of the above.

38. Select the incorrect statement

- (A) Tendrils of pumpkins are homologous to the tendril of grapevines
- (B) Tendrils of cucumber are analogous to tendril of pea.
- (C) Thorn of citrus and tendrils of watermelon are homologous
- (D) Rhizome of ginger and phylloclade of *Opuntia* are analogous.

39. Which is/are endospermic in nature



(A)



(B)



(C)

(D) Both A and C.

40. Which of the following is commonly called 'pinworm', 'seatworm' or chunna

- (A) *Dracunculus medinensis*
- (B) *Enterobius vermicularis*
- (C) *Ancylostoma duodenale*
- (D) *Wuchereria bancrofti*.

41. Pinnate, compound leaves with reticulate venation are present in

- (A) Neem (B) Mango
- (C) *Alstonia* (D) Silk cotton.

42. Apocarpous condition is seen in

- (A) Lotus (B) Mustard
- (C) Tomato (D) Both B and C.

43. Botanical gardens and zoological parks have

- (A) Collection of only local plants and animals
- (B) Collection of only exotic living species
- (C) Collection of only endemic living species
- (D) Collection of endemic & exotic living species.

44. Fill in the blanks

- a. In birds, air sacs connected to ...1... supplement respiration
- b. The class name reptilia refers to their creeping or ...2... mode of locomotion
- c. In amphibians, the eyes ...3... eyelids
- d. Cyclostomes are ...4... but migrate for spawning to ...5... water
- (A) 1-lungs, b-crawling, 3-do not have, 4-marine, 5-fresh
- (B) 1-pneumatic bones, b-swimming, 3-do not have, 4-marine, 5-fresh
- (C) 1-lungs, b-crawling, 3-have, 4-fresh water, 5-marine
- (D) 1-lungs, b-crawling, 3-have, 4-marine, 5-fresh.

45. How many have axile placentation: Mustard, Tomato, Onion, *Tulip*, lupin, *Petunia*, Lemon, China Rose, *Gloriosa*, *Aloe*, Pea, Moong, Tobacco, *Colchicum*

- (A) Three (B) Five
- (C) Six (D) Ten.

Your Next CCT will held **November 29, 2017**

Topic

Chapter-1 to Chapter-8