

12. Select the option with either incorrect identification or incorrect feature / function.

- 1) 1 - Node, it gives rise to branches or leaves
- 2) 2 - Internode, it is part of stem between two nodes.
- 3) 3 - Petiole, it may be terminal or axillary in position.
- 4) 4 - Root, it is responsible for absorption of water and minerals.

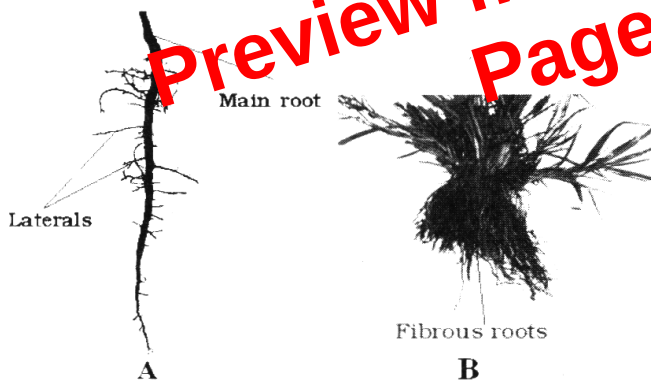
13. In sweet potato which roots are modified for storage?

- 1) Tap roots
- 2) Adventitious roots
- 3) Stilt roots
- 4) Prop roots.

14. Adventitious roots are found in all of the following except:

- 1) Grass
- 2) Banyan
- 3) Monstera
- 4) Mustard.

15. A and B are two types of root systems. Select the option with correct information



- 1) A - Tap root system, found in Maize
- 2) A - Adventitious root system, found in Mustard
- 3) B - Fibrous root system, found in cereals
- 4) B - Adventitious root system, found in grass.

16. Tap root originate from :

- 1) Radicle
- 2) Stem
- 3) Leaves
- 4) Adventitious roots.

17. In aquatic plants, root cap is :

- 1) Well developed and single in number
- 2) Poorly developed or absent
- 3) Well developed and multiple in number
- 4) Lignified.

18. Match the column A (type of root) with column B [example of plants) :

Column A	Column B
I. Tap roots	1. Maize
II. Fibrous roots	2. Mustard
	3. Wheat
	4. Sugarcane
	5. Neem

- 1) I - 2, 4, II - 1, 3, 5
- 2) I - 2, 5, II - 1, 3, 4
- 3) I - 3, 5, II - 1, 3
- 4) I - 5, II - 1, 2, 3, 4

19. Stilt roots originate from-

- 1) Primary roots
- 2) Secondary roots
- 3) Lower node of stem
- 4) Axillary bud of leaf.

20. Out of the following plants, how many possess stilt roots? [Banyan, Neem, Carrot, Maize, Mustard, Monstera, Sugarcane]

- 1) 2
- 2) 3
- 3) 4
- 4) 5

21. What is common between stilt roots and prop roots?

- 1) Both are meant for storage
- 2) Both originate from lower node of stem
- 3) Both are found in members of same genus
- 4) Both provide mechanical support.

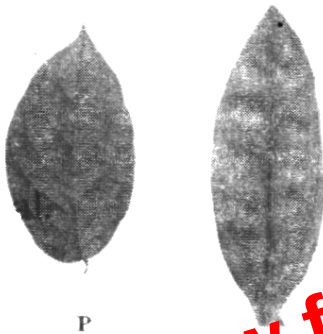
49. If leaflets are attached to a common point, leaf is said to be -

- 1) Whorled 2) Alternate
- 3) Opposite 4) Palmately compound

50. Select the option in which the plants are incorrectly matched with the type of leaf:

- 1) Neem - compound leaf
- 2) Peepal - palmately compound leaf
- 3) Cyccis - pinnately compound leaf
- 4) Silk cotton - palmately compound leaf.

51. Two types of venation are shown in leaves - P and Q. Which of the following statement is correct regarding given diagram?



- 1) Leaf P shows reticulate venation, which can be observed in neem and maize.
- 2) Leaf P shows parallel venation, which can be observed in wheat and maize.
- 3) Leaf Q shows reticulate venation, which can be observed in sugarcane and peepal.
- 4) Leaf Q shows parallel venation, which can be observed in sugarcane and maize.

52. In which of the following plant, tendrils are modification of leaf?

- 1) Pea 2) Grapevines
- 3) Pumpkins 4) Cucumber.

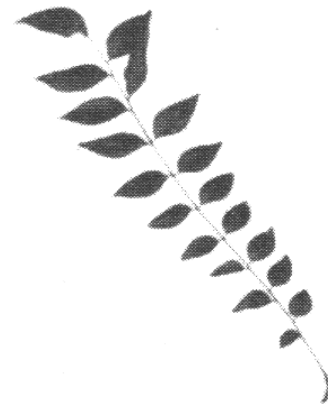
53. Leaves become fleshy to store food in -

- 1) Calotropis, Guava
- 2) Onion, Garlic
- 3) Turnip, Carrot
- 4) Colocasia, Zaminkand.

54. Arrangement of leaves on stem is known as-

- 1) Inflorescence 2) Aestivation
- 3) Venation 4) None.

55. A compound leaf is shown in diagram :



Select the option with correct identification of type of leaf and one of its example in which it is found.

- 1) Pinnately compound, Peepal
- 2) Pinnately compound, Neem
- 3) Palmately compound, Banana
- 4) Palmately compound, Silk cotton.

56. Leaf base if becomes swollen, is termed as.....and is found in.....

- 1) Peduncle, cereals 2) Peduncle, legumes
- 3) Pulvinus, cereals 4) Pulvinus, legumes.

57. Which of the following is not commonly applicable to dicots?

- 1) Venation - Reticulate mostly
- 2) Roots - Tap roots usually
- 3) Number of cotyledons in seed - Two
- 4) Seeds - Endospermic only.

58. Multiple leaves originating from each node of stem can be observed in

- 1) Alstonia 2) Calotropis
- 3) China rose 4) Neem

122. Which placentation is correctly matched with an example?

- | | |
|-----------------|----------|
| 1) Axile | Lemon |
| 2) Basal | Mustard |
| 3) Free central | Pea |
| 4) Parietal | Primrose |

123. Placentation in Primrose and Dianthus is respectively :

- 1) Marginal, axile
- 2) Free central, axile
- 3) Basal, marginal
- 4) Free central, Free central.

124. Identify the placentation in which ovules are located on central axis and no septa are found in ovary.

- | | |
|-----------------|-----------|
| 1) Marginal | 2) Axile |
| 3) Free central | 4) Basal. |

125. Identify the aestivation given in diagram with suitable example :

- 1) Imbricate, Bean
- 2) Imbricate, Cassia
- 3) Vexillary, Gulmohar
- 4) Vexillary, Pea.

126. **Assertion :** In mango and coconut, the fruit is known as drupe.

Reason : The fruit develop in above plant are monocarpellary superior ovary and are one seeded.

- 1) Both the assertion and reason are true and the reason is a correct explanation of the assertion
- 2) Both the assertion and reason are true but the reason is not a correct explanation of the assertion
- 3) The assertion is true but reason is false
- 4) The assertion and reason are false

127. Identify the angiosperm in which ovary is monolocular initially but because of development of a false septum it becomes bilocular later on. Also the ovules are attached to the inner wall of ovary.

- | | |
|-------------|-------------|
| 1) Dianthus | 2) Argemone |
| 3) Pea | 4) Tomato. |

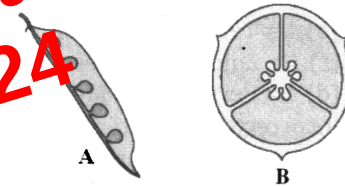
128. Placentation in tomato :

- | | |
|----------|------------------|
| 1) Axile | 2) Marginal |
| 3) Basal | 4) Free central. |

129. Select the option in which placentation in ovary is correctly matched with examples :

- 1) Basal - Marigold, Sunflower
- 2) Marginal - China rose, Pea
- 3) Free central - Mustard, Argemone
- 4) Parietal - Lemon, Primrose

130. A and B are two types of placentations shown in diagram.



Select the option with correct identification of them

- | A | B |
|-------------|--------------|
| 1) Parietal | Axile |
| 2) Axile | Free central |
| 3) Parietal | Free central |
| 4) Marginal | Axile |

131. Single ovule attached to the basal part of ovary is found in :

- | | |
|-------------|--------------|
| 1) Tomato | 2) Pea |
| 3) Marigold | 4) Dianthus. |

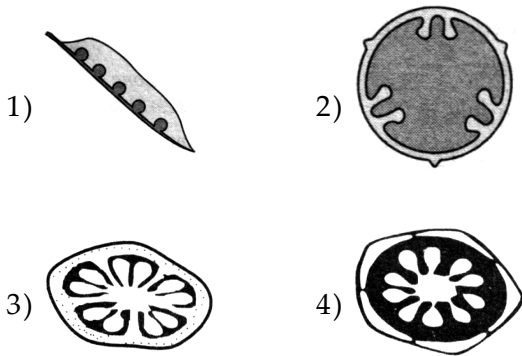
132. In mango, mesocarp is :

- 1) Thin, edible
- 2) Fleshy, edible
- 3) Thick, non-edible
- 4) Stony hard, non-edible.

202. Sweet potato is homologous to
[AIPMT (Mains)-2011]

- | | |
|-----------|--------------|
| 1) Ginger | 2) Turnip |
| 3) Potato | 4) Colocasia |

203. Which one of the following diagrams represent the placentation in *Dianthus*?
[AIPMT (Mains)-2011]



204. Cymose inflorescence is found in
[AIPMT (Prelims)-2012]

- | | |
|---------------------|--------------------|
| 1) <i>Solanum</i> | 2) <i>Sesbania</i> |
| 3) <i>Trifolium</i> | 4) None of these |

205. How many plants in the list given have composite fruits that develop from an inflorescence?

[Walnut, Poppy, Radish, Fig, Pineapple, Apple, Tomato; Mulberry] [AIPMT (Prelims)-2012]

- | | |
|---------|----------|
| 1) Four | 2) Five |
| 3) Two | 4) Three |

206. Vexillary aestivation is characteristic of the family [AIPMT (Prelims)-2012]

- | | |
|---------------|-----------------|
| 1) Fabaceae | 2) Asteraceae |
| 3) Solanaceae | 4) Brassicaceae |

207. Placentation in tomato and lemon is
[AIPMT (Prelims)-2012]

- | | |
|-------------|-----------------|
| 1) Marginal | 2) Axile |
| 3) Parietal | 4) Free central |

208. Phyllode is present in
[AIPMT (Prelims)-2012]

- | | |
|-----------------------------|---------------------|
| 1) <i>Australian Acacia</i> | 2) <i>Opuntia</i> |
| 3) <i>Asparagus</i> | 4) <i>Euphorbia</i> |

209. Which one of the following organisms is correctly matched with its three characteristics? [AIPMT (Mains)-2012]

- 1) Pea : C_3 pathway, Endospermic seed, Vexillary aestivation
- 2) Tomato : Twisted aestivation, Axile placentation, Berry
- 3) Onion : Bulb, Imbricate aestivation, Axile placentation
- 4) Maize : C_3 pathway, Closed vascular bundles, Scutellum

210. How many plants in the list given below have marginal placentation?

Mustard, Gram, Tulip, *Asparagus*, Arhar, Sun hemp, *Chitli*, Colchicine, Onion, Moong, Pea, Tobacco, Lupin [AIPMT (Mains)-2012]

- | | |
|---------|----------|
| 1) Four | 2) Five |
| 3) Six | 4) Three |

211. Seed coat is not thin, membranous in [NEET-2013]

- | | |
|------------|--------------|
| 1) Coconut | 2) Groundnut |
| 3) Gram | 4) Maize |

212. Among bitter gourd, mustard, brinjal, pumpkin, china rose, lupin, cucumber, sunnhemp, gram, guava, bean, chilli, plum, *Petunia*, tomato, rose, *Withania*, potato, onion, Aloe and Tulip, how many plants have hypogynous flower? [NEET-2013]

- | | |
|-------------|------------|
| 1) Ten | 2) Fifteen |
| 3) Eighteen | 4) Six |

213. In china rose, the flower are [NEET-2013]

- 1) Actinomorphic, epigynous with valvate aestivation
- 2) Zygomorphic, hypogynous with imbricate aestivation
- 3) Zygomorphic, epigynous with twisted aestivation
- 4) Actinomorphic, hypogynous twisted aestivation