

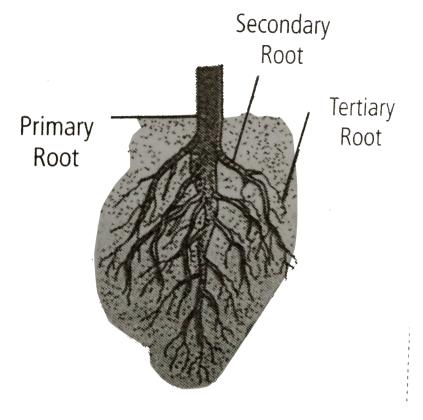
BIOLOGY

BOOKS - MTG BIOLOGY (ENGLISH)

MORPHOLOGY OF FLOWERING PLANTS



1. Refer to the given figure and select the incorrect statements regarding this.



- A. this type of root system develops from radicle of embryo.
- B. Lateral roots arising from the main root are exogenous in origin.
- C. Rootlets are the ultimate root branches that bear root hair for absorption.
- D. Secondary and tertiary roots are borne in acropetal succession.

Answer: B

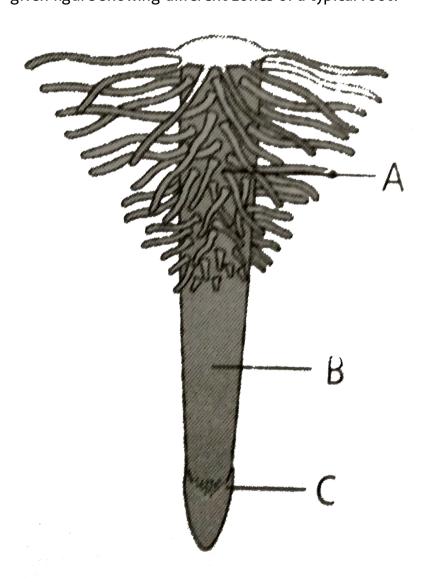


- 2. Read the given statements and select the correct option. Statement-1: Root cap protects the root meristem from the frition of the soil and its outer cells are continously replaced by newer ones.

 Statement 2: The effect of the coil-friction damages the outer cells of root cap which are peeled off and replaced by new cells produced by root meristem.
 - A. Both statements 1 and 2 are correct.
 - B. Statement 1 is correct but statement 2 is incorrect.
 - C. Statement 1 is incorrect but statement 2 is correct.
 - D. Both statement 1 and 2 are incorrect.

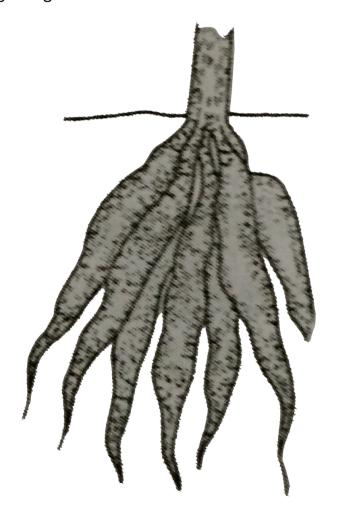
Answer: A

3. Which of the following statements is correct with respect to the given figure showing different zones of a typical root?



A. Part B mainly helps in absorption of water. B. Quiescent centre is present in part B C. Part A is most suitable for anatomical studies of root. D. Differentialtion of cells can be observed in part C **Answer: C Watch Video Solution** 4. Edible roots are found in A. rice B. wheat C. potato D. sweet potato Answer: D

5. Identify the type of modified root and select the correct statements regarding it



- A. it is the tuberous root of Dahlia that stores inulin as reserve food
- B. It is modified taproot that occurs in Dahlia.
- C. It is a modified adventitious root that stores reserve fooed material.
- D. These roots are modified to provide mechanical support to the plant.

Answer: C



- **6.** Select the group of plants that posess stilt roots.
 - A. Zea mays, Rhizophora mangal
 - B. Pandanus odoratissimus, Ficus benghalensis

- C. Rhizophora mangal, Hedera helix
- D. Ficus benghalensis, Pisum sativum

Answer: A



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- 7. Select the mismatched pair
 - A. Tap root system Dicots
 - B. Fibrous root sustem monocots
 - C. Fasciculated roots Curcuma
 - D. Stilt roots Sugarcane

Answer: C



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A. Momordica		
B. Curcuma		
C. Dahlia		
D. Asparagus		
Answer: A		
Watch Video Solution		
9. Match column I with coluthe given codes.	mn II and select the correct option from	
Column I	Column II	
(Type of fleshy taproot)	(Example)	
(A). Conical	(i) Brassica rapa	
(B). Fusiform	(ii) Dauscus carota	
(C). Napiform	(iii) Raphanus Sativus	
(D). Tuberous	(iv) Mirabilis jalapa	

8. Which of the following plants bears moniliform roots?

- A. A-(ii),B-(iii),C-(i),D-(iv)
- B. A-(iii),B-(ii),C-(i),D-(iv)
- C. A-(ii),B-(i),C-(iii),D-(iv)
- D. A-(ii),B-(iii),C-(iv),D-(i)

Answer: A



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- 10. Select the incorrect statement out of the following.
 - A. Assimilatory roots capable of photosynthesis are present in

Tinospora and Trapa.

B. Haustoria of Cuscuta make connections with both xylem and

phoem tissues of host.

C. Reproductive roots of Ipmoea batata help in vegetative propagation

D. Epiphytic roots of Vanda possess well developed root caps and root hair.

Answer: D



11. Given are some difference between an underground stem and a root. Select the option that identifies the incorrect pair of differences.

	Underground stem	Root
(i)	It is differentiated into nodes and internodes.	It is not differentiated into nodes and internodes.
(ii)	Scale leaves are present at the nodes.	Scale leaves are absent in roots.
(iii)	Axillary buds are present in the axil of scale leaves.	Axillary buds are present at root tips.
(iv)	Branches arise exogeno- usly.	Branches arise endogenously.
(v)	Flowers and fruits are usually present.	Flowers and fruits are absent.
(vi)	These usually perform the function of food storage.	These always perform the function of food storage.

- A. (i),(ii) and (vi)
- B. (i),(ii) and (iii)
- C. (iii),(v) and (vi)
- D. (ii),(iii),(v) and (vi)

Answer: C



12. Unbranched, erect, cylindrical stouta axis with distinct nodes and internodes and with joined appearance is called as
A. runner
B. sucker
C. culm
D. caudex.
Answer: C
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13. Which of the following plants possesses culm
13. Which of the following plants possesses culm A. Cuscuta

C. Bamboo

D. Cocos

Answer: C



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14. Match column I with column II and select the correct option from

the given codes.

Column II

(A) Vegetative bonds (i) buds develop in axils of leaves

(B) Floral buds (ii) Buds produce leafy shoots

(C) Axillary buds (iii) Reproductive buds that produce flowers
(D) Accessory buds (iv) Additional buds borne at leaf bases

A. (A)-(ii), (B)-(iii),(C)-(i),(D)-(iv)

B. (A) -(iii),(B)-(ii),(C)-(i), (D)-(iv)

C. (A)-(iv),(B)-(iii),(C)-(i),(D)-(iv)

D. (A)-(i),(B)-(ii),(C)-(iv),(D)-(ii)

Answer: A



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- 15. Read the given statements and select the correct ones.
- (i) Root caps are present in prop roots.
- (ii) Pneumatophores helf to get oxygen for respiration.
- (iii) Edible part of ginger is underground stem.
- (iv) Hydrophytes usually possess a well developed root system.
 - A. (i) and (ii) only
 - B. (ii) and (iii) only
 - C. (i),(ii) and (iii)
 - D. (i),(ii),(iii) and (iv)

Answer: C



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16. Read the following statements and select the correct option.

Statement -1: the stem tubers are the swollen ends of spcialised underground stem branches, which help in vegetative propagation of the plant.

Statement-2 : Solanum tuberosum is an example of a stem tuber which stores inulin as the main reserve food material.

A. Both statements 1 and 2 are correct.

B. Statement 1 is correct but statement 2 is incorrect.

C. Statement 1 is incorrect but statement 2 is correct.

D. Both statement 1 and 2 are incorrect.

Answer: B



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17. Which of the following is not an example of corm
A. Colocasia
B. Freesia
C. Crocus
D. Zingiber
Answer: D
Watch Video Solution
Watch Video Solution
Watch Video Solution 18. The 'eyes' of the potato tuber represent
18. The 'eyes' of the potato tuber represent
18. The 'eyes' of the potato tuber represent A. nodes

Answer: A



19. In Bougainvillea, weak stems rise up a support by clinging to it with the help of curverd thorns, such plants are called as

- A. tendrils
- B. hooks
- C. offsets
- D. scramblers.

Answer: D



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20. In Opuntia, the function of photosynthesis is carried out by

A. cladode
B. phyllode
C. phylloclade
D. stipules.
Answer: C
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21are the green stems of limited growth which have taken over
the function of photosynthesis form leaves.
A. Phylloclades
B. Cladodes
C. Phyllodes
D. Stem thorns

Answer: B



22. Following table summerises the comparisions between phylloclades and cladodes (cladophylls).

	Phylloclade	Cladode
(i)	Both main stem and branches are modified to function like leaves.	Only the branches are modified to take over the function of leaves.

(v)	Examples: Ruscus aculeatus, Asparagus, etc.	Examples: Opuntia, Euphorbia royleana, etc.
(iv)	True leaves are commonly caducous.	True leaves are either reduced to scales or modified to spines.
(iii)	It consists of several nodes and internodes.	It is usually one internode long.
(ii)	Phylloclade has limited or definite growth.	Cladode has unlimited or indefinite growth.

Pick up the wrong differences and select the correct option

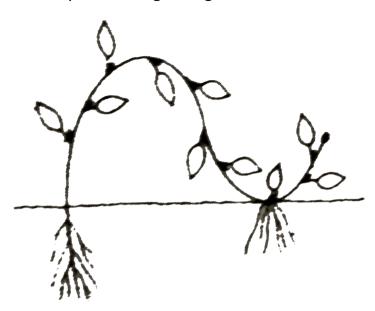
- A. (i) and (ii)
- B. (ii) and (v)
- C. (iii) and (v)
- D. (ii) and (iv)

Answer: B



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23. With respect to the given figure, select the correct option



A. It possesses one or more nodes

B. It grows aerially for some distance and finally touches the ground

C. It is present in Fragaria, Jasminium, etc.

D. All of these

Answer: D



24. Match column I with column II and select the correct option from

the given codes.

Column I Column II

A. Thorns (i) Vegetative propagation

B. Phylloclades (ii) Defensive mechanism

C. Runners (iii) absorption of nutrients

D. Haustoria (v) Photosynthesis

A. a) A-(v),B-(iv),C-(iii) ,D-(ii) ,E-(i)

B. b) A-(ii),B-(v),C-(iii),D-(i),E-(v)

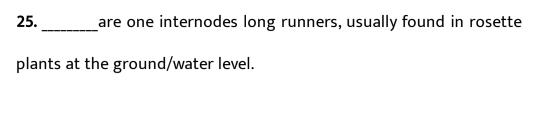
C. c) A-(ii),B-(v),C-(i),D-(iii),E-(iv)

D. d) A-(iii),B-(v),C-(iv),D-(i),E-(ii)

Answer: C



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- A. Trailers
- B. Offsets
- C. Stolons
- D. Rhizomes

Answer: B

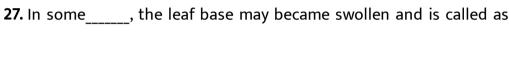


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26. Select the mismatched pair out of the following

- A. a) Rhizome -Druopteris, Nelumbo nucifera
- B. b) Corm -Crocus sativus, Amorphophallus
- C. c) Sucker-Curcuma domestica, Zingiber offcinale

D. d) Tuber-Helianthus tuberosus,Solanum tuberosum
Answer: C
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27. In some, the leaf base may became swollen and is called as



- A. a) monocots, sheathing leaf base
- B. b) legumes, pulvinus
- C. c) legumes, sheathing leaf base
- D. d) monocots, pulvinus

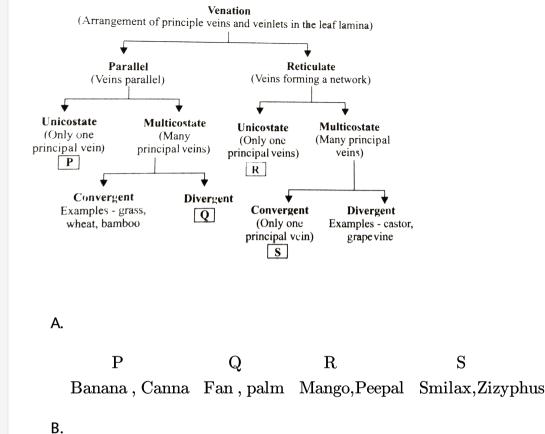
Answer: B



28. Which of the following represents the functions of veins in the	
leaves ?	
A. a) Transport of water and mineral	
B. b) Mechanical support	
C. c) Transport of organic food material	
D. d) All of these	
Answer: D	
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29. Reticulate venation is a characteristic of dicots. An exception to this generalisation is	
this generalisation is	

D. Zizyphus.
Answer: A Watch Video Solution
30. Parallel venation is a characteristic of monocots. Which of the
following is an exception to this generalisation?
A. Smilax
B. Colocasia
C. Alocasia
D. All of these
Answer: D
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31. Which of the following kinds of venation is present in banana?
A. Reticulate unicostate
B. Reticulate multicostate
C. Parallel unicostate
D. Parallel multicostate
Answer: C
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32. Study the following flow chart and select the correct option for P, Q, R and S.



P Q R S
Banana , Canna Smilax, Zizyphus Mango, Peepal Fan , palm

C.

P Q R S

Mango,Peepal Banana , Canna Fan , palm Smilax,Zizyphus

D.

P Q R S
Mango,Peepal Fan, palm Smilax,Zizyphus Banana, Canna

Answer: A

33. A simple leaf can be differentiated from the pinnae of a compound leaf on the basis of presence or absence of

A. number of pinnae

B. shape of lamina

C. axillary bud

D. lateral buds.

Answer: C



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34. Finely dissected leaf may be an adaptation of

A. xerophytes

- B. psssammophytes
- C. halophytes
- D. hydrogphytes.

Answer: D



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35. Study the given figures and identify the kind of phyllotaxy



- A. (i) (ii) (iii)
 Whorled Opposite Alternate

 B. (i) (ii) (iii)
 Alternate Opposite Whorled
 (i) (ii) (iii)
- Opposite Alternate Whorled

(iii)(i) (ii) Opposite Whorled Alternate **Answer: B Watch Video Solution**

36. In spiral phyllotaxy, the number of leaves at each node is

A. one

B. two

C. three

D. many

Answer: A



37. In_____ phyllotaxy, a pair of leaves arise at each node and lie opposite to each other as in____plants

A. alternate, Hibiscus

B. opposite,Hibiscus

C. opposite, Calotropis

D. Whorled, Calotropis

Answer: C



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38. Identify the group of plants possessing leaf tendrils

A. Pea,Glory lily

B. Cucumber,Pumpkin

C. Water melon, Grapevine

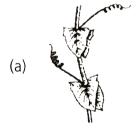
D. All of these

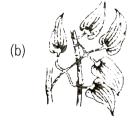
Answer: A



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39. Different parts of a leaf are modified into tendrils which helps the plant in climbing up. Identify the type of tendril that is seen in Clematis





В.





D.

Answer: B



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40. Leaf tip tendrils are present in

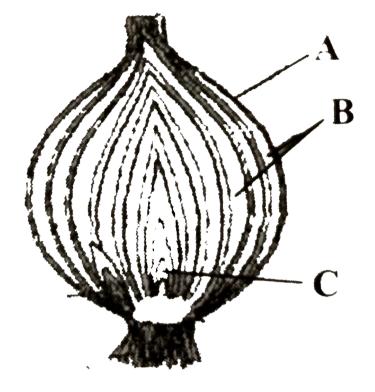
A. Smilax

B. Lathyrus

C. Pisum

D. Gloriosa.

Answer: D **Watch Video Solution** 41. Spines present on the areoles of Opuntia represent A. stem B. leaves C. buds D. phyllodes Answer: B **Watch Video Solution** 42. The given figure represent the V.S. of bulbs of Allium cepa identify the different parts and select the correct options



Answer: C



43. Which of the following represents the edible swollen portion of
Allium cepa ?

- A. Aerial stem
- B. Underground stem
- C. Internodes
- D. Leaf bases

Answer: D



?

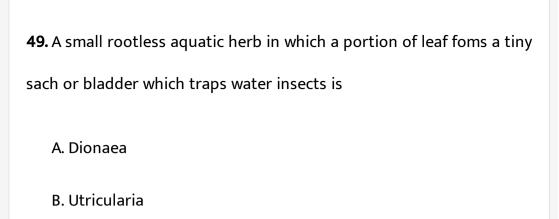
- **44.** Which of the following plants parts in garlic and onion are edible
- A. Underground stem
 - B. Fleshy scale leaves

D. Adventitious roots
Answer: B
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15. Which of the following is an incorrect pair?
A. Phylloclades -Opuntia
B. Cladode- Ruscus
C. Phyllode - Asparagus
D. Stem tendrils = Grapevine
Answer: C
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C. Tunic

46. Parkinsonia is a good example of	
A. phylloclade	
B. parachute mechanism	
C. phyllode	
D. winged fruits.	
Answer: C	
Watch Video Solution	
47. Select the incorrect match with respect to the plant and the	
relative plants part modified for food storage.	
A. Lathyrus odoratus (Sweet potato) - Root	
B. Solanum tuberosum (Potato) - Stem	
C. Allium cepa (Onion) - Leaves	

D. Dahlia (Dahlia) - Leaves
Answer: D
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48. Which plants part is modified into pitcher in pitcher plants ?
A. Root
B. Stem
C. Leaf
D. Flower
Answer: C
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C. Sarracenia

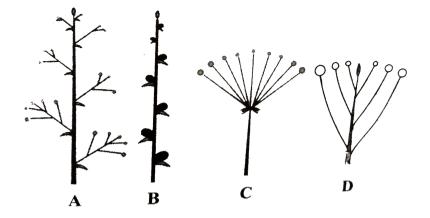
D. Drosera.

Answer: B



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50. The given figure shows some types fo inflorescences. Select the option that correctly identifies them.



- $(A) \quad (B) \quad (C) \quad (D)$
- Panicle Spike Corymb Catkin
- (A) (B) (C) (D)
- Spike Panicle Corymb Catkin
- (A) (B) (C) (D) Panicle Catkin Umbel Spike
- (A) (B) (C) (D) Panicle Spike Umbel Corymb

Answer: D



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51. inflorescence is a compact spike-like inflorescence with small unisextual flowers.

A. Spike B. Corymb C. Catkin D. Umbel **Answer: C Watch Video Solution** (i) type of inflorescence, main axis terminates in a **52.** In flower, hence is limited in growth and flowers are borne in (ii) Succession. (i) (ii) acropetal racemose (ii) (i) В. basipetal racemose (ii) (i) acropetalcymose (ii) (i) basipetal cymose

Answer: D



53. Identify the types of inflorescence shown in the figure and select the correct option for A and B .



- (A) (B)
- A. Cumose Racemose
- $\mathbf{g} \quad (\mathbf{A}) \tag{B}$
- Racemose Cymose
- $(A) \qquad (B)$
- Racemose Racemose
- $\mathbf{S} \quad (\mathbf{A}) \qquad (\mathbf{B})$
- Cymose Cymose

54. Match column I with column II and select the correct option from

the given codes.

Column I Column II

A. Pedicel (i) Reduced leaf

 $B.\ Peduncle \qquad (ii)\ Stalk\ of\ the\ flower$

C. Bract (iii) Stalk of the leaf

D. Petiole (iv) Infloresences axis

A. a) A-(ii),B-(iv),C-(i),D-(iii)

B. b) A-(iii),B-(iv),C-(i),D-(ii)

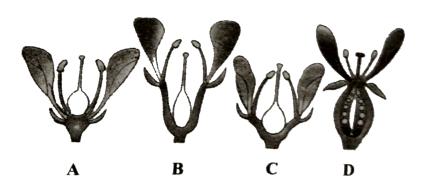
C. c) A-(iii),B-(ii),C-(i),D-(iv)

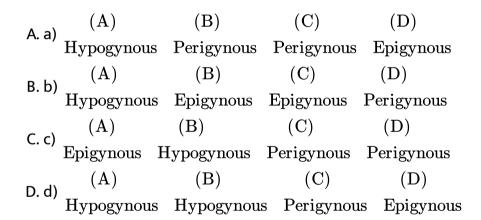
D. d) A-(ii),B-(iii),C-(i),D-(iv)

Answer: A



55. Refer to the given figures, showing relative position of different floral parts on the thalamus and select the correct option .





Answer: A



56. If the gynoecium is present in the topmost position of the thalamus, then the flower is referred to as

- A. hypogynous
- B. perigynous
- C. epigynous
- D. none of these

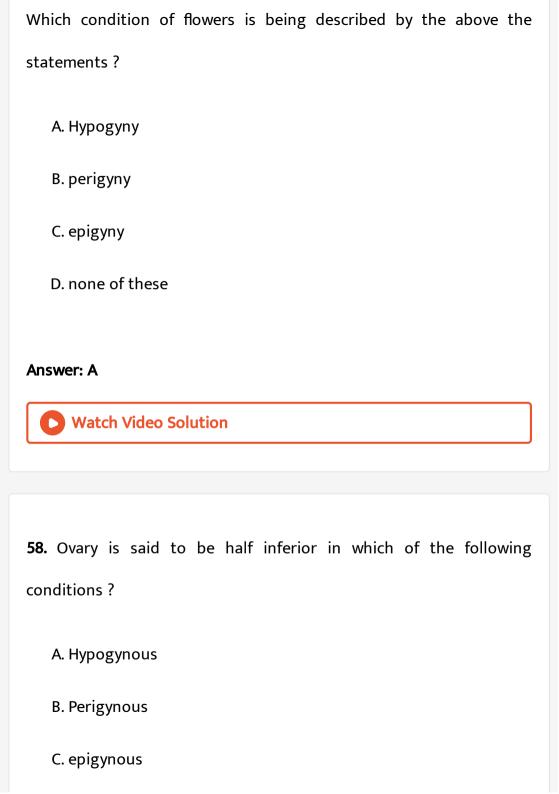
Answer: A



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57. Read the given statements

- (i) Gynoecium occupies the highest position while the other floral parts are situated below it.
- (ii) Overy is superior.
- (iii) Examples are Brassica, Hibiscus, brinjal, etc.



D. Both (b) and (c)

Answer: B



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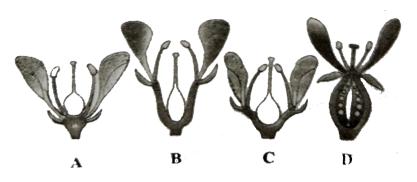
59. In _____flowers, margin of thalamus grows upward enclosing the ovary completely and getting fused with it.

- A. hypogynous
- B. perigynous
- C. epigynous
- D. Both (b) and (c)

Answer: C



60. Based on the position of floral parts on thalamus, the flowers, are described as hypogynous, perigynous and epigynous. Which of the following floral forms (A-D) represents the flowers of Rosa and Prunus respectively?



A. A and B

B. B and C

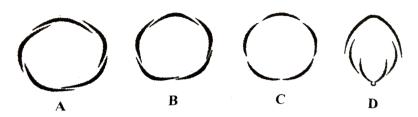
C. C and D

D. B and D

Answer: B



61. Identify the different types of aestivation (A,B ,C and D) and select the correct option.



A. (A) (B) (C) (D)

Valvate Twisted Imbricate Vexillary

B. (A) (B) (C) (D)

Imbricate Twisted Valvate Vexillary

C. (A) (B) (C) (D)

Twisted Imbricate Vexillary Valvate

(A) (B) (C) (D)

Twisted Imbricate Valvate Vexillary

Answer: D



62. In_____aestivation, sepals or petals in a whorl just touch one another at the margins, without overlaping, as is found in____

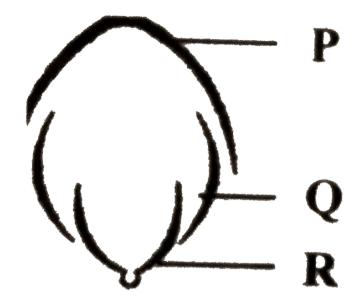
- A. a) valavate, Calotropis
- B. b) Valvate, Hibiscus
- C. c) twisted, Calotropis
- D. d) twisted, Hibiscus

Answer: A



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63. The given figure represents vexillary aestivation. Select the suitable labels for P,Q and R



- $(P) \qquad (Q) \qquad (R)$
- A. Standard Wing Ala
- $(P) \qquad (Q) \quad (R)$

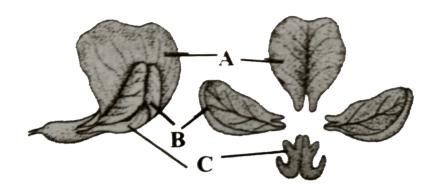
B. Standard keel Wing

- (P) (Q) (R)
- C. Wing keel Carina
- $(P) \qquad (Q) \quad (R)$
- D. Standard Ala Carina

Answer: D



64. Select the correct option for A,B and C in the given diagram of papilionaceous corolla.



- (A) (B) (C)
- Keel Wings Vexillum
- (A) (B) (C)
- B. Vexillum Keel Wings
- C. (A) (B) (C) Vexillum Wings Keel
- (A) (B) (C) D. Wings Keel Vexillum

Answer: C



- 65. Find out the incorrect match
 - A. Sterile stamen-Staminode
 - B. Stamens attached to petals Epipetalous
 - C. Stamens attached to perianth -Episepalous
 - D. Free stamens Polyandrous

Answer: C



- **66.** Select the incorrect pair out of the following
 - A. Monadelphous Hibiscus
 - B. Diadelphous Cucurbita
 - C. Polyadelphous -Citrus
 - D. Syngenesious Helianthus

Answer: B Watch Video Solution

67. Syngernesious condition of stamens is found in family

- A. Asteraceae
- B. Liliaceae
- C. Cruciferae
- D. Malvaceae.

Answer: A



68. Monothecous condtion of stamens, i.e., Presence of a signle anther lobe is characterstic of family

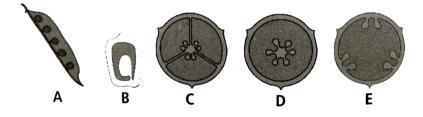
- A. Cucurbitaceae
- B. Malvaceae
- C. Asterceae
- D. Brassicaceae

Answer: B



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69. Indentify the different types of placentation shown in figure and select the correct option .



- A. A B C D E

 Axile Marginal Free central Parietal Basal

 B. A B C D E

 B. A B C D E
- Marginal Basal Axile Free central Parietal

C.A
MarginalB
AxileC
ParietalD
Free centralE
BasalD.A
MarginalB
ParietalC
AxileD
BasalE

Answer: B



70. In_____placentation, a monocarpellary overy bears a sigle longitudinal ovule along the junction of two fused margins.

A. axile

B. parietal

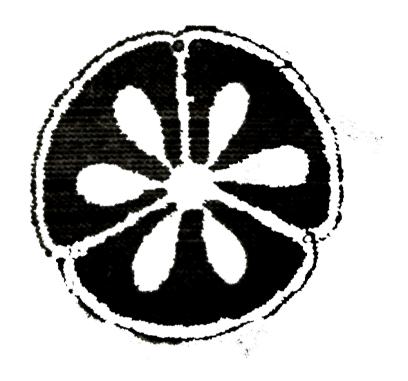
C. free central

D. marginal

Answer: D



71. Which kind of placentation is represented by the given figure ?

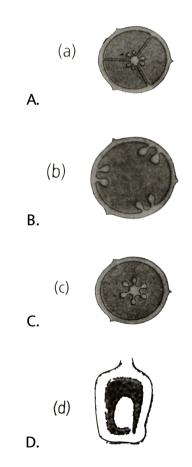


A. Marginal

- B. Axile
- C. Parietal
- D. Basal

Answer: B

72. Which of the following figures represents a typical placentation as seen in Hibiscus rosa sinensis (China rose)?



Answer: A

73. Ovary is one-chambered but it becomes two-chambered due to the formation of false septum in

- A. Brassica
- B. Pisum
- C. Hibiscus
- D. Dianthus

Answer: A



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74. Match column I with column II and select the correct option from given codes.

D. Free central	(iv) Hibiscus, Argemone		
E. Basal	(v) Dianthus, Primorse		
A. A-(ii),B-(iii),C-(iv),D-(v),E-(i)			
B. A-(i),B-(iii),C-(ii),D-(v),E-(iv)			
C. A-(i),B-(ii),C-(iii),D-(iv),E-(v)			
D. A-(iii),B-(ii),C-(iv),D-(v),E-(i)			
Answer: A			
Answer: A			
Answer: A			
	Solution		
Answer: A Watch Video	Solution		
	Solution		
	Solution		
	Solution		
Watch Video	presents a drupe of mango. Select the option that		
75. Given figure re	presents a drupe of mango. Select the option that		
Watch Video	presents a drupe of mango. Select the option that		
75. Given figure re	presents a drupe of mango. Select the option that		

Column I

A. Marginal

B. parietal

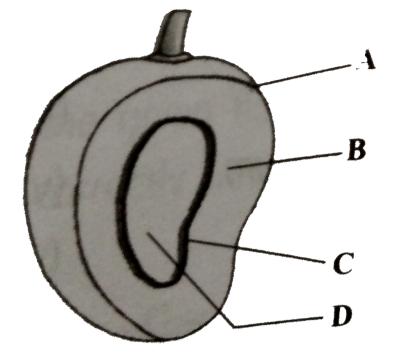
C Axile

Column II

(ii) Pea

(i) Sunflower, marigold

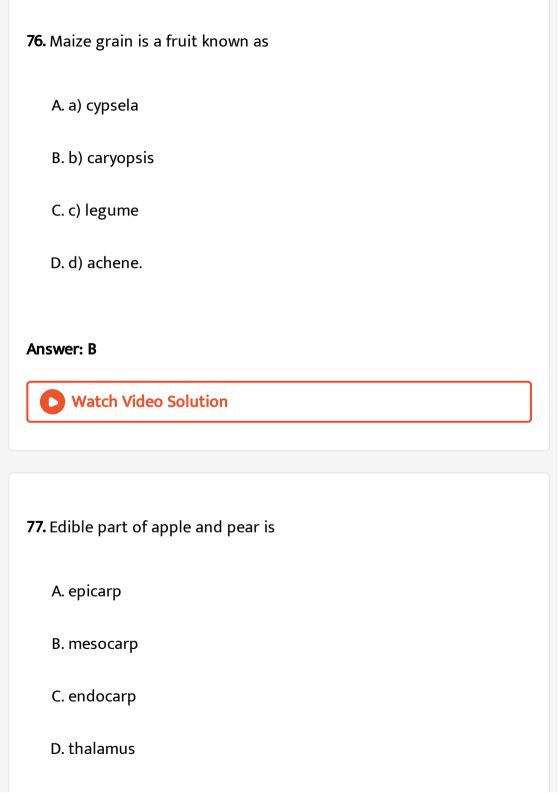
(iii) Mustard, Argemone



 $\begin{array}{c} A. & (A) & (B) & (C) & (D) \\ \hline Pericarp & Epicarp & Mesocarp & Endocarp \\ B. & (A) & (B) & (C) & (D) \\ \hline Epicarp & Mesocarp & Endocarp & Seed \\ \hline C. & (A) & (B) & (C) & (D) & (E) \\ \hline Mesocarp & Epicarp & Endocarp & Seed \\ \hline D. & (A) & (B) & (C) & (D) & (E) \\ \hline Epicarp & Mesocarp & Seed & Endocarp \\ \hline \end{array}$

Answer: B





Answer: D





78.

Select the incorrect the statements the given figure .

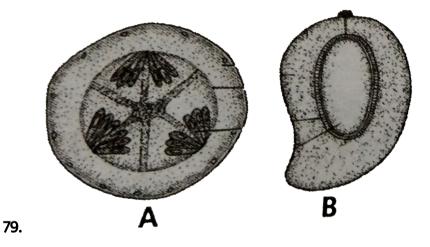
- A. it represents the baccate fruit of Lycopersicum esculentum.
- B. It is derived from a monocarpellary appearpous gynoecium.
- C. It represents the true berry of tomato.

D. Both (b) and (c)

Answer: B



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Identify the given types of fruit select the correct option.

- A. A=pepo, B=Nut
- B. A=Pepo, B =Drupe
- C. A=Balausta,B=Drupe
- D. A=Drupe,B=Pepo

Answer: B



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80. Select the mismatched pair out of the following

- A. Syconus Ficus carica
- B. Sorosis Ananas camosus
- C. Pome Mangifera indica
- D. Cremocarp Coriandrum sativum

Answer: C



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81. X is scar on the seed coat through which the following seeds were attached to the fuit, above the X is a small pore called Y.

Indetify X and Y and select the correct option .

A. $\begin{array}{ccc} X & Y \\ \text{Micropyle} & \text{Hilum} \\ X & Y \end{array}$

B. Hilum Micropyle

 $\mathsf{C.} \ \frac{\mathsf{X}}{\mathsf{Testa}} \quad \frac{\mathsf{Y}}{\mathsf{Tegmen}}$

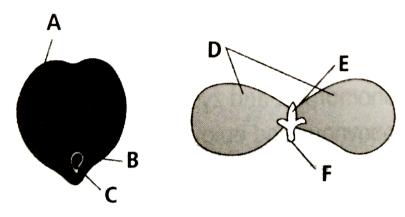
D. $\frac{X}{Chalaza}$ $\frac{Y}{Micropyle}$

Answer: B



82. Refer to the given figures showing structure of dicotyledonous seed and select the option that correctly identifies any of the labelled

parts



- A. A-Seed coat, B-Cotyledon, C-Plumule
- B. D-Micropyle, E-Hilu, F-Rdicle
- C. B-Hilum, E-Plumule, F-Radicle
- D. C-Cotyledon, D-Micropyle, E-Radicle

Answer: C



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83. Endospermic seeds are found in

A. barley	
B. castor	
C. pea	
D. both (a) and (b)	
Answer: D	
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84. In albuminous seeds, food is stored inand in exalbuminous	
seeds, food is stored in	
A. endosperm,cotylendons	
B. cotyledons,cotylendons	
C. cotyledons,endosperm	
D. endosperm, endosperm	

Answer: A



85. Cereals, castor and coconut possess seeds.

- A. endospermic
- B. zoospermic
- C. non-albuminous
- D. none of these

Answer: A



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86. Monocotylendonous seeds possess a single cotyledon which is represented by

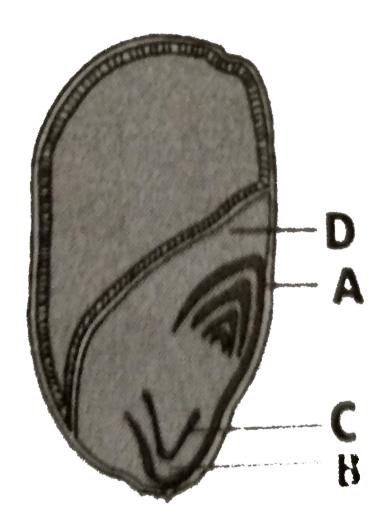
A. tegmen
B. endosperm
C. scutellum
D. aleurone.
Answer: C
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87. Coleorhiza and coleoptile are the protective sheaths
coveringandrespectively.
A. radicle,plumule
B. plumule,radicle
C. plumule,hypocotyl
D. epicotyl,radicle

Answer: A



88. Given figure represents longitudinal section of a monocotyledonous embryo.

Identify the parts labelled as A,B, C and D from the list (i-vii) and select the correct option



- (i) Scutellum
- (ii) Coleoptile
- (iii) Shoot apex
- (iv) Epiblast
- (v) Radicle

Answer: B

(vi) Root Cap

(vii) Colerhiza



respectively?

89. Which floral conditions are represented by the symbols \oplus and %

A. a) Zygomorphic and actinomorphic flowers

B. b) Actinomorphic and zygomorphic flowers

C. c) Hypogynous and epigynous flowers

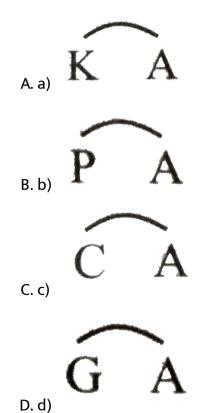
D. d) Bisexual and unisexual flowers

Answer: B



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90. Which of the following symbols denotes presence of tepals and epitepalous stamens in a flower ?



Answer: B Watch Video Solution

- 91. Marginal placentation is generally found in family
 - A. Leguminosea
 - B. Cucurbitaceae
 - C. Malvaceae
 - D. Brassicaceae

Answer: A



92. Identify the correct feature of the family to which given floral formula belongs.

$$\% \nsubseteq K_{(5)} C_{1+2+(2)} A_{(9)+1} \underline{G}_1$$

- A. Presence of actinomorphic flowers and cruciform corolla
- B. Androecium is commonly diadelphous or monadelphous
- C. Presence of cymose inflorescence
- D. fuit is a berry or capsule

Answer: B



93. Add the missing floral organs in the given floral formula of Family Fabaceae.

$$\% \ \del{eq:K(5)} K_{(5)} - A_{(9)+1} \underline{G}_{1}$$

A.
$$C_{1+2+2}$$

B.
$$C_{1+2+(2)}$$

C.
$$C_{1+2+3}$$

 $\operatorname{D.} C_5$

Answer: B



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94. Which floral family has (9)+1 arragements of anthers in the androecium?

- A. Malvaceae
- B. Rutaceae
- C. Fabaceae
- D. Caesalpinaceae



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95. Match column I with column II and select the correct option from

the given codes

Column II Column II

(Members of Fabaceae) (Economic importance)

A. Gram, sem, moong, soybean (i) Timber

B. Soybean, groundnut (ii) Medicine

C. Indigofera (iii) Fodder

D. Sunhemp (iv) Fiberes

E. Sesbania, Triforlium (v) Dye

F. GDalbergia sissoo (vi) Edible oil

G. Glycyrrhiza glabra (vii) Pulses

A. A-(i),B-(ii),C-(iii),D-(iv),E-(v),F-(vi),G-(vii)

B. A-(vii),B-(vi),C-(v),D-(iv),E-(iii),F-(i),G-(ii)

C. A-(ii),B-(iv),C-(vi),D-(i),E-(iii),F-(v),G-(vii)

D. A-(i),B-(iii),C-(v),D-(vii),E-(ii),F-(iv),G-(vi)

Answer: B



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96. A plant has a butterfly shaped flower with one standerd, two wing like and two keel petals. The plants belongs to the family

- A. Papilionaceae
- B. Asteraceae
- C. Malvaceae
- D. Rubiaceae

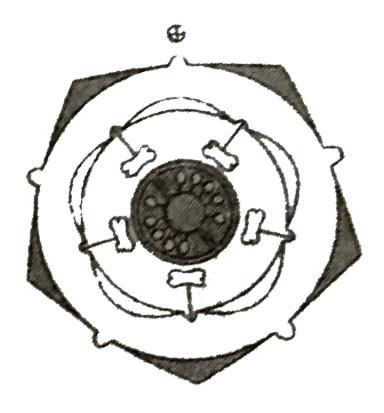
Answer: A



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97. Presistent calyx is the character of plants belonging to Family

A. Solanaceae B. Malvaceae C. Cruciferae (Brassicaceae) D. Compositae. Answer: A **Watch Video Solution** 98. Study carefully the given floral diagram and select the option which correctly represents the reltated floral fomula.



$$\text{A.} \ ^{^{0}} \ ^{_{0}} \ ^{\cancel{0}} \ ^{\cancel{0}$$

$$\operatorname{B.} \, \oplus \overset{\circ}{\not \circ} K_{(5)} \overset{\circ}{C_5} \quad A_5 \, \underline{G}_{(2)}$$

c.
$$\oplus \not \circ P_{5+5}A_{(5)}\underline{G}_{(2)}$$

D.
$$\bigoplus_{i=1}^{n} \overbrace{K_{(5)}C_{(5)}}^{i} A_{5} \underline{G}_{(2)}$$

Answer: D



99. The floral fomula belongs to the family

A. Fabaceae

B. Asteraceae

C. Solanaceae

D. Liliaceae

Answer: C



Flowers

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100. Identify the family which shows the following diagnostic features.

pentamerous, gynoecium-bicarpellary,syncarpous,

ovary

placed obliquely, placentation axile, placenta swollen.

A. Solanaceae

- B. Leguminosae
- C. Papilionaceae
- D. Liliaceae

Answer: A



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101. which of the following floral formulae corresponds to Family Liliaceae ?

A. Br
$$\oplus$$
 Q^{7} $P_{3+3}A_{3+3}\overline{G_{(3)}}$

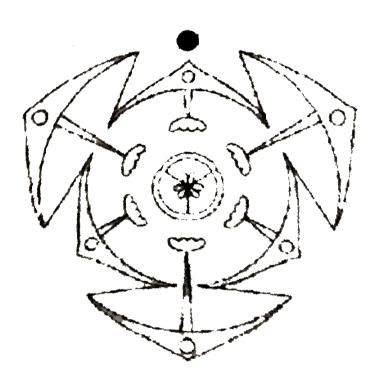
Br
$$\oplus$$
 \bigcirc $P_{3+3}A_0 \underbrace{G_{(3)}}$

Br
$$\oplus \not = P_3 A_3 G_{(3)}$$

D. Br
$$\oplus Q P_{(3+3)} A_{3+3} G_{(3)}$$

Answer: D

102. Study carefully the given floral diagram and select the option which correctly represents the related floral formula.



A.
$$\bigoplus Q' P_{(3+3)} A_{3+3} \underline{G}_{(3)}$$

A.
$$\bigoplus \stackrel{\frown}{P_{(3+3)}A_{3+3}} \stackrel{\underline{G}_{(3)}}{\underline{G}_{(3)}}$$
B. $\bigoplus \stackrel{\frown}{P_6} \stackrel{\frown}{A_6} \stackrel{\underline{G}_{(3)}}{\underline{G}_{(3)}}$

C.
$$\bigoplus_{f} P_{5+5} A_{(5)} \underline{G}_{(2)}$$
D. $\bigoplus_{f} K_{(5)} C_{(5)} A_{(5)} \underline{G}_{(2)}$

D.
$$\bigoplus \oint K_{(5)}C_{(5)} \stackrel{\lambda}{A}_{(5)}\underline{G}_{(2)}$$

Answer: A



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103. Identify the missing words (A,B,C and D) and select the correct option.

Family	Inflores- cence	Flower	Stamens /tepals	Gynoecium
Fabaceae	A	В	10	D
Solanaceae	Solitary, axillary or cymose	Actino- morphic	5	Bicarpellary
Lilliaceae	Solitary, cymose or racemose	Actino- morphic	C beliboon to	Tricarpellary

DBRacemose Zygomorphic 3+3 Monocarpellary

- B. $\frac{A}{\text{Racemose}}$ $\frac{B}{\text{Actinomorphic}}$ $\frac{C}{5}$ $\frac{D}{\text{Bicarpellary}}$
- A B C D
- C. Cymose Zygomorphic 3+3 Tricarpellary $A \qquad B \qquad C \qquad D$
- D. Cymose Actinomorphic 5 Multicarpellary

Answer: A



104. Which of the following is a correct combination of family and its respective members ?

- A. Fabaceae-Colchicum autumnale, Trifolium alexandrinum
- B. Solanaceae-Withania somnifera, Petunia
- C. Liliaceae-Sesbania, Asparagus
- D. Asteraceae-Sonchus asper, Nicotiana tabacum

Answer: B

105. Select the pair which contains monocotyledonous families.

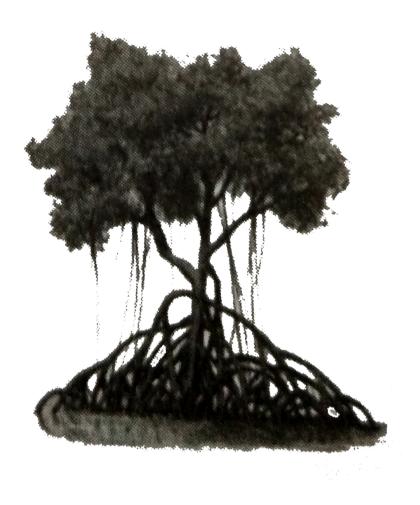
- A. Solanaceae and Brassicaceae
- B. Fabaceae and Asteraceae
- C. Liliaceae and Poaceae
- D. None of these

Answer: C



106. Roots are modified to perform specific functions other than their normal functions. The given figure shows modification of the roots of

mangrove plant. Select the incorrect option regarding it.



A. The stilt roots of red mangrove help in breathing

B. The root system is highly entangled, huge and extensive under the water.

- C. A large number of animals such as small fishes, crustaceans, seahorses, etc. find shelter in this root system
- D. Besides providing mechanical support, these roots also perform photosynthetic functions in the plant.

Answer: D



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- 107. Read the following statements.
- (i)In Limnophila heterophylla, the lamina of submerged leaves is very much dissected while the lamina of aerial leaves is entire. This variation in the form of lamina is referred to as _____.
- (ii)Potato tubers, when exposed to light, turn green due to the increased production of a glycoalkaloid named_____.
- (iii)In _____,ovary arises from the bottom of the cup-shaped thalamus and androperianth arises from the rim of the cup-shaped thalamus.

(iv)Underground stems can be differentiated from roots by ____ of axillary buds on the nodes.

Select the correct fill-ups out of the following for the above statements

A. ⁽ⁱ⁾ (ii) (iii) (iv) developmental heterophylly solanine Rosa presence (ii) (iii) (iv) (i) B. environmental heterophylly solanine Prunus presence C. (i) (ii) (iii) (iv)

environmental heterophylly chlorophyll Prunus absence

D. (i) (ii) (iii) (iv) adaptive heterophylly lycopene Cucurbita absence

Answer: B



108. Consider the following statements.

(i)In Gynandropsis, Passiflora, etc., thalamus is elongated and shows well developed nodes and internodes.

(ii)The floral buds in Agave, Allium, etc., may sometimes get modified into vegetative buds or bulbils.

(iii)Sepals are concerned with protection of flowers in bud condition and petals help to attract insects for pollination.

(iv)Stamens and carpels serve as the male and female reproductive organs respectively.

Which of the following combinations of above statements provides an evidence that flower is a modified shoot ?

A. (i) and (ii)

B. (ii) and (iii)

C. (iii) and (iv)

D. (i) and (iv)

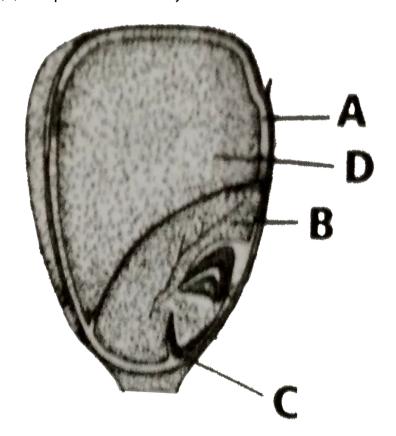
Answer: A



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109. In the given figure of maize grain certain regions are labelled as A,B,C and D.Match them with the codes (1,2,3 and 4) given below and select the correct option

- (1) The main nutritive tissue ltbr (2) Shield shaped cotyledon
- (3)Protection sheath of radicle
- (4) The proteinaceous layer



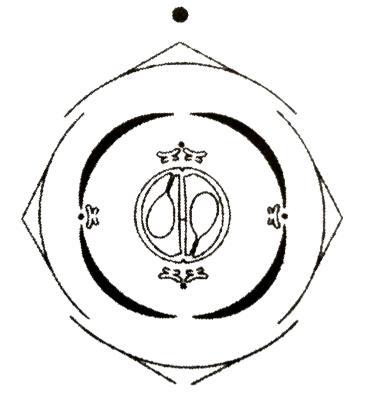
- A. A-(1), B-(3), C-(4), D-(2)
- B. A-(2), B-(3), C-(1), D-(4)
- C. A-(1), B-(2), C-(3), D-(4)
- D. A-(4), B-(2), C-(3), D-(1)

Answer: D



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110. Which of the following features characterise the family represented by the given floral diagram?



- A. Cruciform corolla with quincuncial aestivation
- B. Stamens with didynamous condition
- C. Bicarpellary, syncarpous ovary with parietal placentation
- D. Inflorescence usually cymose

Answer: C



111. Rearrange the following zones as seen in the root in vertical section and choose the correct option.

A.Root hair zone, B.Zone of meristems

C.Root cap zone, D.Zone of maturation

E.Zone of elongation

A. C,B,E,A,D

B. A,B,C,D,E

C. D,E,A,C,B

D. E,D,C,B,A

Answer: A



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112. In an inflorescence where flowers are borne laterally in an acropetal succession, the position of the youngest floral bud shall be

- A. proximal
- B. distal
- C. intercalary
- D. anywhere

Answer: B



113. The mature seeds of plants such as gram and peas, possess no endosperm, because

- A. these plants are not angiosperms
- B. there is no double fertilisation in them

C. endosperm is not formed in them

D. endosperm gets used up by the developing embryo during seed development.

Answer: D



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114. Roots developed from parts of the plant other than radicle are called

A. tap roots

B. fibrous roots

C. adventitious roots

D. nodular roots

Answer: C



115. Venation is a term used to describe the pattern of arrangement of

- A. floral organs
- B. flower in inflorescence
- C. veins and veinlets in a lamina
- D. all of them

Answer: C



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116. Endosperm, a product of double fertilisation in angiosperm is absent in the seeds of

A. coconut

C. maize D. castor **Answer: B Watch Video Solution** 117. Many pulses of daily use belong to one of the families below (tick the correct answer) A. Solanaceae B. Fabaceae C. Liliaceae D. Poceae

B. orchids

Answer: B



118. The placenta is attached to the developing seed near the

A. testa

B. hilum

C. micropyle

D. chalaza

Answer: B



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119. Which of the following plants is used to extract the blue dye?

A. Trifolium

B. Indigofera

C. Lupin

D. Cassia

Answer: B



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120. Match the followings and choose correct option.

Group A Group B

A. Aleurone layer (ii) Without fertilisation

B. Parthenocarpic fruit (ii) Nutrition

C. Ovule (iii)Double fertilisation

D. Endosperm (iv)Seed

A. A-(i),B-(ii),C-(iii),D-(iv)

B. A-(ii),B-(i),C-(iv),D-(iii)

C. A-(iv),B-(ii),C-(i),D-(iii)

D. A-(ii),B-(iv),C-(i),D-(iii)

Answer: B

121. Assertion:Fibrous root system consists of large number of fine, fibrous roots developing form the base of the stem.

Reason:Fibrous root system is found in dicots only.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: C



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122. Assertion: Avicennia has pneumatophores.

Reason:Pneumatophores help the plant to get oxygen for respiration.

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

Answer: A



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123. Assertion:Stems of some plants protect them from browsing animals.

Reason:Axillary buds of stems of these plants are modified into thorns.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: A



124. Assertion:In some leguminous plant, the leaf base is swollen.

Reason: The swollen leaf base is called pulvinus.

A. a)If both assertion and reason are true and reason is the correct explanation of assertion.

B. b) If both assertion and reason are true but reason is not the correct explanation of assertion.

C. c) If assertion is true but reason is false.

D. d) If assertion and reason are false.

Answer: B



125. Assertion:Leaves of monocot plants generally possess reticulate venation.

Reason:Leaves of dicot plants generally, possess parallel venation.

A. a)If both assertion and reason are true and reason is the correct explanation of assertion.

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

Answer: D



- **126.** Assertion:The alternate type of phyllotaxy is the arrangement of leaves in which a single leaf arises at each node in alternate manner.

 Reason:The alternate type of phyllotaxy is seen in China rose and mustard plant.
 - A. a) If both assertion and reason are true and reason is the correct explanation of assertion.

B.b) If both assertion and reason are true but reason is not the correct explanation of assertion.

C. c) If assertion is true but reason is false.

D. d)If assertion and reason are false.

Answer: B



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127. Assertion: Thy cymose type of inflorescence has limited growth.

Reason:In cymose inflorescence the main axis terminates in a flower.

A. If both assertion and reason are true and reason is the correct

explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: A



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128. Assertion:In some flowers like lily, perianth is a term used when calyx and corolla are not distinct.

Reason:Calyx and corolla are the reproductive organs.

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

Answer: C



129. Assertion: In imbricate aestivation, out of five petals, one is completely internal, one is completely external and in each of the remaining three petals, one margin is internal and the other is external

Reason:Ascending imbricate aestivation is found in Cassia and gulmohur.

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

Answer: B



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130. Assertion: Monoadelphous stamens are found in pea.

Reason:In pea, stamens are united into one bunch or one bundle.

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

Answer: D



131. Assertion: The placentation in which the placenta forms a ridge along the ventral suture of ovary and ovules are borne on this ridge forming two rows is called parietal placentation.

Reason:The marginal placentation has ovules developed on the inner wall of the ovary or on peripheral part.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: D



132. Assertion:Fruit is the mature or ripened ovary developed after fertilisation.

Reason:Fruit formed without fertilisation of the ovary is called parthenocarpic fruit.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: B



133. Assertion:The outermost covering of a dicotyledonous seed in the seed coat.

Reason: The seed coat has two layers-outer testa and inner helium.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: C



134. Assertion: \underline{G} is the symbol for inferior ovary.

Reason: Adhesion is indicated by enclosing the figure within bracket.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: D



135. Assertion: The floral formula of Family Solanaceae is

$$\bigoplus Q' K_{(5)} \widehat{C_{(5)}} A_5 \underline{G}_{(2)}$$

Reason: This floral formula of Solanaceae tells that flower is bisexual, sepals five, petals five, stamens five and gynoecium tricarpellary, trilocular with many ovules.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

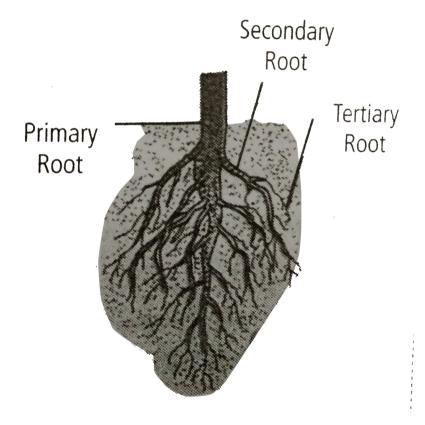
D. If assertion and reason are false.

Answer: C



Morphology Of Flowering Plants

1. Refer to the given figure and select the incorrect statements regarding this.



A. this type of root system develops from radicle of embryo.

- B. Lateral roots arising from the main root are exogenous in origin.
- C. Rootlets are the ultimate root branches that bear root hair for absorption.
- D. Secondary and tertiary roots are borne in acropetal succession.

Answer: B



2. Read the given statements and select the correct option.

Statement-1: Root cap protects the root meristem from the frition of the soil and its outer cells are continously replaced by newer ones.

Statement 2: The effect of the coil-friction damages the outer cells of root cap which are peeled off and replaced by new cells produced by root meristem.

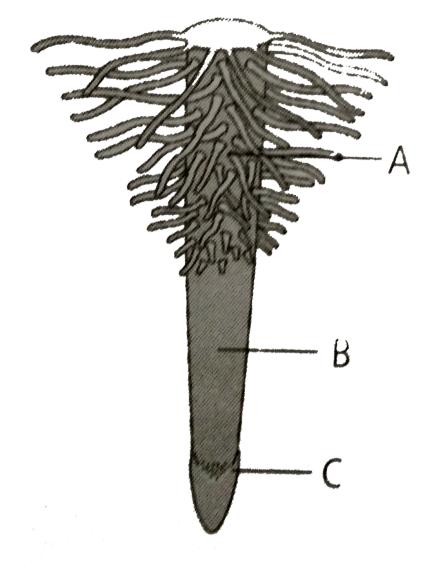
- A. Both statements 1 and 2 are correct.
- B. Statement 1 is correct but statement 2 is incorrect.
- C. Statement 1 is incorrect but statement 2 is correct.
- D. Both statement 1 and 2 are incorrect.

Answer: A



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3. Which of the following statements is correct with respect to the given figure showing different zones of a typical root?



A. Part B mainly helps in absorption of water.

B. Quiescent centre is present in part B

C. Part A is most suitable for anatomical studies of root.

D. Differentialtion of cells can be observed in part C

Answer: C

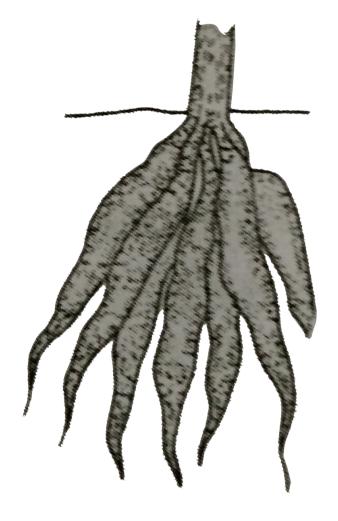


- 4. Edible roots are found in
 - A. rice
 - B. wheat
 - C. potato
 - D. sweet potato

Answer: D



5. Identify the type of modified root and select the correct statements regarding it



A. it is the tuberous root of Dahlia that stores inulin as reserve

food

- B. It is modified taproot that occurs in Dahlia.
- C. It is a modified adventitious root that stores reserve fooed material.
- D. These roots are modified to provide mechanical support to the plant.

Answer: C



- A. Zea mays, Rhizophora mangal
 - B. Pandanus odoratissimus, Ficus benghalensis

6. Select the group of plants that posess stilt roots.

- C. Rhizophora mangal, Hedera helix
- D. Ficus benghalensis, Pisum sativum

Answer: A Watch Video Solution

- 7. Select the mismatched pair
 - A. Tap root system Dicots
 - B. Fibrous root sustem monocots
 - C. Fasciculated roots Curcuma
 - D. Stilt roots Sugarcane

Answer: C



8. Which of the following plants bears moniliform roots?

- A. Momordica
- B. Curcuma
- C. Dahlia
- D. Asparagus

Answer: A



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9. Match column I with column II and select the correct option from the given codes.

Column II

(Type of fleshy taproot) (Example)

- (A). Conical (i) Brassica rapa
- (B). Fusiform (ii) Dauscus carota
- (C). Napiform (iii) Raphanus Sativus
- (D). Tuberous (iv) Mirabilis jalapa
 - A. A-(ii),B-(iii),C-(i),D-(iv)
 - B. A-(iii),B-(ii),C-(i),D-(iv)

- C. A-(ii),B-(i),C-(iii),D-(iv)
- D. A-(ii),B-(iii),C-(iv),D-(i)

Answer: A



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10. Select the incorrect statement out of the following.

- A. Assimilatory roots capable of photosynthesis are present in
 - Tinospora and Trapa.
- B. Haustoria of Cuscuta make connections with both xylem and phoem tissues of host.
- C. Reproductive roots of Ipmoea batata help in vegetative propagation

D. Epiphytic roots of Vanda possess well developed root caps and root hair.

Answer: D



11. Given are some difference between an underground stem and a root. Select the option that identifies the incorrect pair of differences.

	Underground stem	Root
(i)	It is differentiated into nodes and internodes.	It is not differentiated into nodes and internodes.
(ii)	Scale leaves are present at the nodes.	Scale leaves are absent in roots.
(iii)	Axillary buds are present in the axil of scale leaves.	Axillary buds are present at root tips.
(iv)	Branches arise exogeno- usly.	Branches arise endogenously.
(v)	Flowers and fruits are usually present.	Flowers and fruits are absent.
(vi)	These usually perform the function of food storage.	These always perform the function of food storage.

- A. (i),(ii) and (vi)
- B. (i),(ii) and (iii)
- C. (iii),(v) and (vi)
- D. (ii),(iii),(v) and (vi)

Answer: C



12. Unbranched, erect, cylindrical stouta axis with distinct nodes and internodes and with joined appearance is called as
A. runner
B. sucker
C. culm
D. caudex.
Answer: C
Watch Video Solution
13. Which of the following plants possesses culm
13. Which of the following plants possesses culm A. Cuscuta

C. Bamboo

D. Cocos

Answer: C



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14. Match column I with column II and select the correct option from

the given codes.

Column II Column II

(A) Vegetative bonds (i) buds develop in axils of leaves

(B) Floral buds (ii) Buds produce leafy shoots

(C) Axillary buds
 (iii) Reproductive buds that produce flowers
 (D) Accessory buds
 (iv) Additional buds borne at leaf bases

A. (A)-(ii), (B)-(iii),(C)-(i),(D)-(iv)

B. (A) -(iii),(B)-(ii),(C)-(i), (D)-(iv)

C. (A)-(iv),(B)-(iii),(C)-(i),(D)-(iv)

D. (A)-(i),(B)-(ii),(C)-(iv),(D)-(ii)

Answer: A



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- 15. Read the given statements and select the correct ones.
- (i) Root caps are present in prop roots.
- (ii) Pneumatophores helf to get oxygen for respiration.
- (iii) Edible part of ginger is underground stem.
- (iv) Hydrophytes usually possess a well developed root system.
 - A. (i) and (ii) only
 - B. (ii) and (iii) only
 - C. (i),(ii) and (iii)
 - D. (i),(ii),(iii) and (iv)

Answer: C



16. Read the following statements and select the correct option.

Statement -1: the stem tubers are the swollen ends of spcialised underground stem branches, which help in vegetative propagation of the plant.

Statement-2 : Solanum tuberosum is an example of a stem tuber which stores inulin as the main reserve food material.

A. Both statements 1 and 2 are correct.

B. Statement 1 is correct but statement 2 is incorrect.

C. Statement 1 is incorrect but statement 2 is correct.

D. Both statement 1 and 2 are incorrect.

Answer: B



17. Which of the following is not an example of corm
A. Colocasia
B. Freesia
C. Crocus
D. Zingiber
Answer: D
Watch Video Solution
Watch Video Solution
Watch Video Solution 18. The 'eyes' of the potato tuber represent
18. The 'eyes' of the potato tuber represent
18. The 'eyes' of the potato tuber represent A. nodes

Answer: A



19. In Bougainvillea, weak stems rise up a support by clinging to it with the help of curverd thorns, such plants are called as

- A. tendrils
- B. hooks
- C. offsets
- D. scramblers.

Answer: D



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20. In Opuntia, the function of photosynthesis is carried out by

A. cladode
B. phyllode
C. phylloclade
D. stipules.
Answer: C
Watch Video Solution
21are the green stems of limited growth which have taken over
the function of photosynthesis form leaves.
A. Phylloclades
B. Cladodes
C. Phyllodes
D. Stem thorns

Answer: B



22. Following table summerises the comparisions between phylloclades and cladodes (cladophylls).

	Phylloclade	Cladode
(i)	Both main stem and branches are modified to function like leaves.	Only the branches are modified to take over the function of leaves.

(v)	Examples: Ruscus aculeatus, Asparagus, etc.	Examples: Opuntia, Euphorbia royleana, etc.
(iv)	True leaves are commonly caducous.	True leaves are either reduced to scales or modified to spines.
(iii)	It consists of several nodes and internodes.	It is usually one inter- node long.
(ii)	Phylloclade has limited or definite growth.	Cladode has unlimited or indefinite growth.

Pick up the wrong differences and select the correct option

A. (i) and (ii)

B. (ii) and (v)

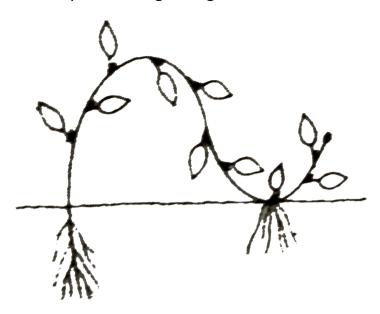
C. (iii) and (v)

D. (ii) and (iv)

Answer: B



23. With respect to the given figure, select the correct option



A. It possesses one or more nodes

B. It grows aerially for some distance and finally touches the ground

C. It is present in Fragaria, Jasminium, etc.

D. All of these

Answer: D



24. Match column I with column II and select the correct option from

the given codes.

Column I Column II

A. Thorns (i) Vegetative propagation

B. Phylloclades (ii) Defensive mechanism

C. Runners (iii) absorption of nutrients

D. Haustoria (v) Photosynthesis

A. A-(v),B-(iv), C-(iii) ,D-(ii) ,E-(i)

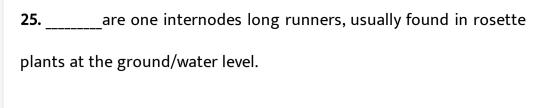
B. A-(ii),B-(v),C-(iii),D-(i),E-(v)

C. A-(ii),B-(v),C-(i),D-(iii),E-(iv)

D. A-(iii),B-(v),C-(iv),D-(i),E-(ii)

Answer: C





- A. Trailers
- B. Offsets
- C. Stolons
- D. Rhizomes

Answer: B



- 26. Select the mismatched pair out of the following
 - A. Rhizome -Druopteris, Nelumbo nucifera
 - B. Corm -Crocus sativus, Amorphophallus
 - C. Sucker-Curcuma domestica, Zingiber offcinale

D. Tuber-Helianthus tuberosus, Solanum tuberosum
Answer: C
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27. In some, the leaf base may became swollen and is called as

A. monocots, sheathing leaf base

C. legumes, sheathing leaf base

B. legumes, pulvinus

D. monocots, pulvinus

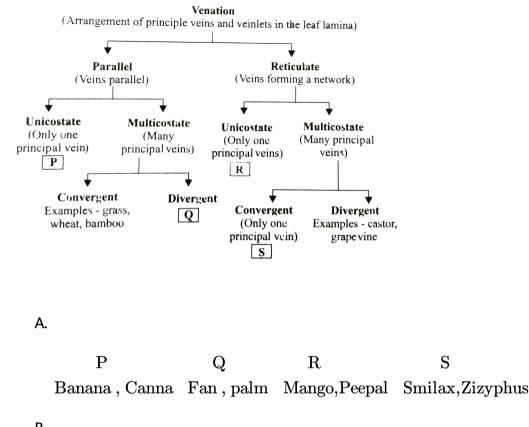
Watch Video Solution

Answer: B

28. Which of the following represents the functions of veins in the	
leaves ?	
A. Transport of organic food material	
B. Mechanical support	
C. Transport of organic food material	
D. All of these	
Answer: D	
Watch Video Solution	
29. Reticulate venation is a characteristic of dicots. An exception to this generalisation is	
A. Calophyllum	
A. Calophyllum B. Ficus	

D. Zizyphus.						
Answer: A Watch Video Solution						
30. Parallel venation is a characteristic of monocots. Which of the						
following is an exception to this generalisation ?						
A. Smilax						
B. Colocasia						
C. Alocasia						
D. All of these						
Answer: D						
Watch Video Solution						

31. Which of the following kinds of venation is present in banana?					
A. Reticulate unicostate					
B. Reticulate multicostate					
C. Parallel unicostate					
D. Parallel multicostate					
Answer: C					
Watch Video Solution					
32. Study the following flow chart and select the correct option for P, Q, R and S.					



B.

P Q R S

Banana, Canna Smilax, Zizyphus Mango, Peepal Fan, palm

P Q R S
Mango, Peepal Banana, Canna Fan, palm Smilax, Zizyphus

D.

P Q R S
Mango,Peepal Fan, palm Smilax,Zizyphus Banana, Canna

Answer: A

C.

33. A simple leaf can be differentiated from the pinnae of a compound leaf on the basis of presence or absence of

A. number of pinnae

B. shape of lamina

C. axillary bud

D. lateral buds.

Answer: C



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34. Finely dissected leaf may be an adaptation of

A. xerophytes

- B. psssammophytes
- C. halophytes
- D. hydrogphytes.

Answer: D



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35. Study the given figures and identify the kind of phyllotaxy



- A. (i) (ii) (iii)
 Whorled Opposite Alternate

 B. (i) (ii) (iii)
 Alternate Opposite Whorled
 (i) (ii) (iii)
- C. Opposite Alternate Whorled

(iii) (i) (ii) Opposite Whorled Alternate **Answer: B Watch Video Solution**

36. In spiral phyllotaxy, the number of leaves at each node is

A. one

B. two

C. three

D. many

Answer: A



37. In_____ phyllotaxy, a pair of leaves arise at each node and lie opposite to each other as in____plants

A. alternate, Hibiscus

B. opposite,Hibiscus

C. opposite, Calotropis

D. Whorled, Calotropis

Answer: C



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38. Identify the group of plants possessing leaf tendrils

A. Pea, Glory lily

B. Cucumber, Pumpkin

C. Water melon, Grapevine

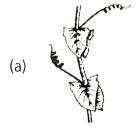
D. All of these

Answer: A



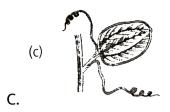
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39. Different parts of a leaf are modified into tendrils which helps the plant in climbing up. Identify the type of tendril that is seen in Clematis





В.





D.

Answer: B



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40. Leaf tip tendrils are present in

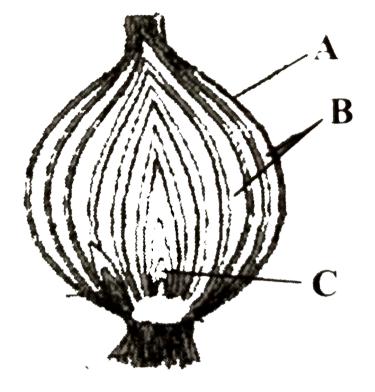
A. Smilax

B. Lathyrus

C. Pisum

D. Gloriosa.

Answer: D **Watch Video Solution** 41. Spines present on the areoles of Opuntia represent A. stem B. leaves C. buds D. phyllodes Answer: B **Watch Video Solution** 42. The given figure represent the V.S. of bulbs of Allium cepa identify the different parts and select the correct options



Answer: C



43. Which of the following represents the edible swollen portion of
Allium cepa ?

- A. Aerial stem
- B. Underground stem
- C. Internodes
- D. Leaf bases

Answer: D



?

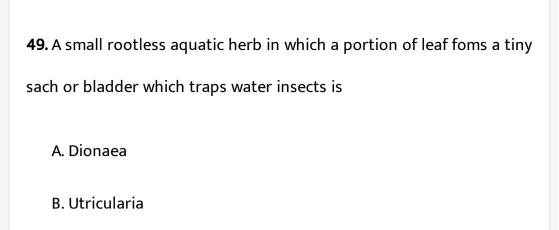
- **44.** Which of the following plants parts in garlic and onion are edible
- A. Underground stem
 - B. Fleshy scale leaves

D. Adventitious roots
Answer: B
Watch Video Solution
15. Which of the following is an incorrect pair?
A. Phylloclades -Opuntia
B. Cladode- Ruscus
C. Phyllode - Asparagus
D. Stem tendrils = Grapevine
Answer: C
Watch Video Solution

C. Tunic

46. Parkinsonia is a good example of						
A. phylloclade						
B. parachute mechanism						
C. phyllode						
D. winged fruits.						
Answer: C						
Watch Video Solution						
47. Select the incorrect match with respect to the plant and the						
relative plants part modified for food storage.						
A. Lathyrus odoratus (Sweet potato) - Root						
B. Solanum tuberosum (Potato) - Stem						
C. Allium cepa (Onion) - Leaves						

D. Dahlia (Dahlia) - Leaves
Answer: D
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48. Which plants part is modified into pitcher in pitcher plants ?
A. Root
B. Stem
C. Leaf
D. Flower
Answer: C
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C. Sarracenia

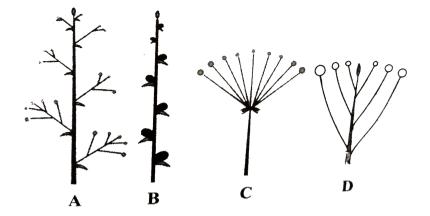
D. Drosera.

Answer: B



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50. The given figure shows some types fo inflorescences. Select the option that correctly identifies them.



- (A) (B) (C) (D)
- Panicle Spike Corymb Catkin
- (A) (B) (C) (D)
- Spike Panicle Corymb Catkin
- C. (A) (B) (C) (D)
 Panicle Catkin Umbel Spike
- Panicle Catkin Umbel Spik $(A) \quad (B) \quad (C) \quad (D)$
- Panicle Spike Umbel Corymb

Answer: D



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51. _____inflorescence is a compact spike-like inflorescence with small unisextual flowers.

A. Spike B. Corymb C. Catkin D. Umbel **Answer: C Watch Video Solution** (i) type of inflorescence, main axis terminates in a **52.** In flower, hence is limited in growth and flowers are borne in (ii) Succession. (i) (ii) acropetal racemose (ii) (i) В. basipetal racemose (ii) (i) acropetalcymose (ii) (i) basipetal cymose

Answer: D



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53. Identify the types of inflorescence shown in the figure and select the correct option for A and B .





B

- (A) (B)
- A. Cumose Racemose
- (A) (B)
- Racemose Cymose
- (A) (B)
- Racemose Racemose
- (A) (B)
- Cymose Cymose

Answer: B

54. Match column I with column II and select the correct option from

the given codes.

Column I Column II

A. Pedicel (i) Reduced leaf

B. Peduncle (ii) Stalk of the flower

C. Bract (iii) Stalk of the leaf

D. Petiole (iv) Infloresences axis

A. A-(ii),B-(iv),C-(i),D-(iii)

B. A-(iii),B-(iv),C-(i),D-(ii)

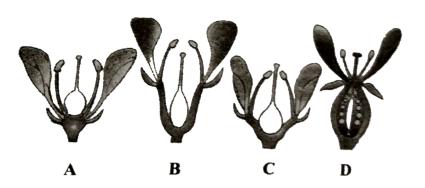
C. A-(iii),B-(ii),C-(i),D-(iv)

D. A-(ii),B-(iii),C-(i),D-(iv)

Answer: A



55. Refer to the given figures, showing relative position of different floral parts on the thalamus and select the correct option .



A.	(A)	(B)	(C)	(D)
	Hypogynous	(B) Perigynous	Perigynous	Epigynous
В.	(A)	(B)	(C)	(D)
	Hypogynous	(B) Epigynous	Epigynous	Perigynous
C.	(A)	(B)	(C)	(D)
	Epigynous	(B) Hypogynous	Perigynous	Perigynous
D.	(A)	(B)	(C)	(D)
	Hypogynous	Hypogynous	s Perigynou	s Epigynous

Answer: A



56. If the gynoecium is present in the topmost position of the thalamus, then the flower is referred to as

- A. hypogynous
- B. perigynous
- C. epigynous
- D. none of these

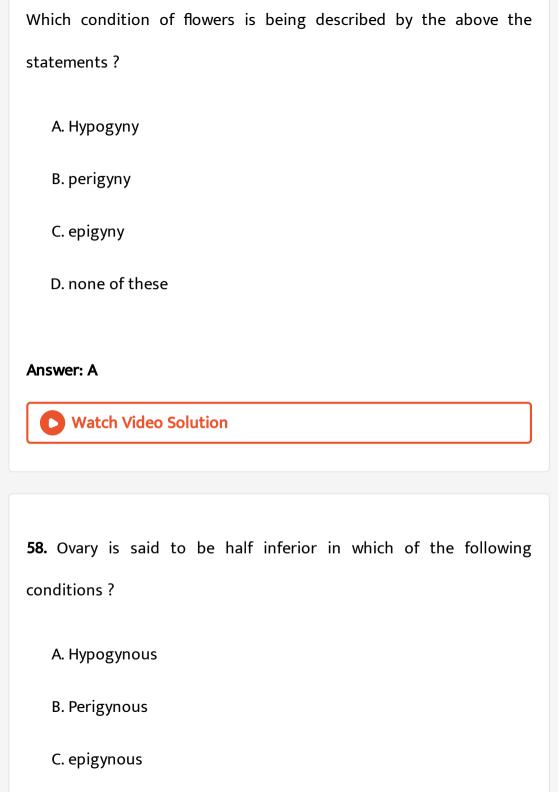
Answer: A



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57. Read the given statements

- (i) Gynoecium occupies the highest position while the other floral parts are situated below it.
- (ii) Overy is superior.
- (iii) Examples are Brassica, Hibiscus, brinjal, etc.



D. Both (b) and (c)

Answer: B



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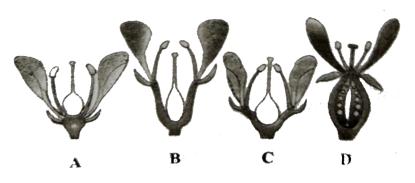
59. In _____flowers, margin of thalamus grows upward enclosing the ovary completely and getting fused with it.

- A. hypogynous
- B. perigynous
- C. epigynous
- D. Both (b) and (c)

Answer: C



60. Based on the position of floral parts on thalamus, the flowers, are described as hypogynous, perigynous and epigynous. Which of the following floral forms (A-D) represents the flowers of Rosa and Prunus respectively?



A. A and B

B. B and C

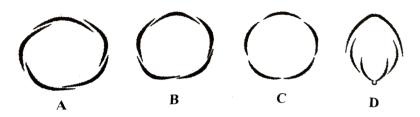
C. C and D

D. B and D

Answer: B



61. Identify the different types of aestivation (A,B ,C and D) and select the correct option.



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

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

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

D. (A) (B) (C) (D)

Twisted Imbricate Valvate Vexillary

Answer: D



62. In_____aestivation, sepals or petals in a whorl just touch one another at the margins, without overlaping, as is found in____

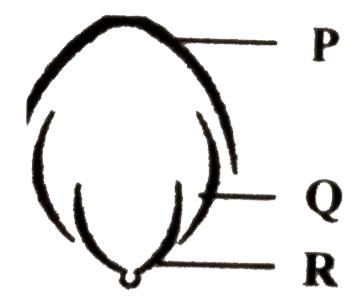
- A. valavate, Calotropis
- B. Valvate, Hibiscus
- C. twisted, Calotropis
- D. twistedm Hibiscus

Answer: A



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63. The given figure represents vexillary aestivation. Select the suitable labels for P,Q and R

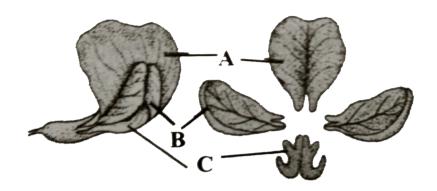


- $(P) \qquad (Q) \qquad (R)$
- A. Standard Wing Ala
 - $(P) \qquad (Q) \quad (R)$
- B. Standard keel Wing
- (P) (Q) (R)
- C. Wing keel Carina
 - $(P) \qquad (Q) \quad (R)$
- D. Standard Ala Carina

Answer: D



64. Select the correct option for A,B and C in the given diagram of papilionaceous corolla.



- (A) (B) (C)
- Keel Wings Vexillum
- (A) (B) (C)
- B. Vexillum Keel Wings
- C. (A) (B) (C) Vexillum Wings Keel
- (A) (B) (C) D. Wings Keel Vexillum

Answer: C



- 65. Find out the incorrect match
 - A. Sterile staman-Staminode
 - B. Stamens attached to petals Epipetalous
 - C. Stamens attached to perianth -Episepalous
 - D. Free stamens Polyandrous

Answer: C



- **66.** Select the incorrect pair out of the following
 - A. Monadelphous Hibiscus
 - B. Diadelphous Cucurbita
 - C. Polyadelphous -Citrus
 - D. Syngenesious Helianthus

Answer: B Watch Video Solution

- 67. Syngernesious condition of stamens is found in family
 - A. Asteraceae
 - B. Liliaceae
 - C. Cruciferae
 - D. Malvaceae.

Answer: A



68. Monothecous condtion of stamens, i.e., Presence of a signle anther lobe is characterstic of family

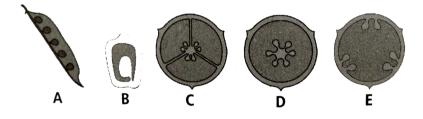
- A. Cucurbitaceae
- B. Malvaceae
- C. Asterceae
- D. Brassicaceae

Answer: B



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69. Indentify the different types of placentation shown in figure and select the correct option .



- A. A B C D E

 Axile Marginal Free central Parietal Basal

 B C D E
- B. Marginal Basal Axile Free central Parietal

C.A
MarginalB
AxileC
ParietalD
Free centralE
BasalD.A
MarginalB
ParietalC
AxileD
BasalE

Answer: B



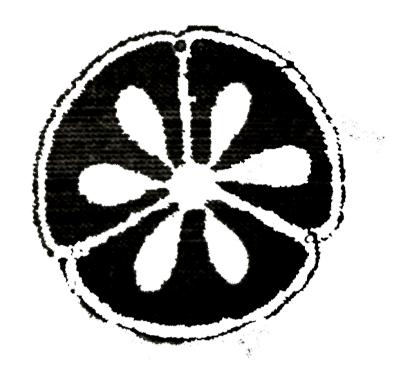
70. In_____placentation, a monocarpellary overy bears a sigle longitudinal ovule along the junction of two fused margins.

- A. axile
- B. parietal
- C. free central
- D. marginal

Answer: D



71. Which kind of placentation is represented by the given figure ?

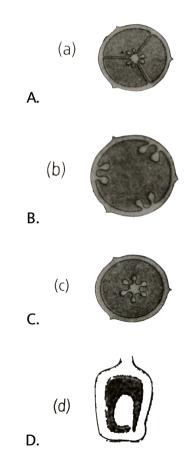


A. Marginal

- B. Axile
- C. Parietal
- D. Basal

Answer: B

72. Which of the following figures represents a typical placentation as seen in Hibiscus rosa sinensis (China rose)?



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73. Ovary is one-chambered but it becomes two-chambered due to the formation of false septum in

- A. Brassica
- B. Pisum
- C. Hibiscus
- D. Dianthus

Answer: A



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74. Match column I with column II and select the correct option from given codes.

D. Free central	(iv) Hibiscus, Argemone				
E. Basal	(v) Dianthus, Primorse				
A. A-(ii),B-(iii),C-(iv),D-(v),E-(i) B. A-(i),B-(iii),C-(ii),D-(v),E-(iv)					
D. A (1),0 (11),0 (1),0 (1),1					
C. A-(i),B-(ii),C-(iii),D-(iv),E-(v)					
D. A-(iii),B-(ii),C-(D. A-(iii),B-(ii),C-(iv),D-(v),E-(i)				
Answer: A Watch Video	Solution				
75. Given figure recorrectly identifies	presents a drupe of mango. Select the option that A, B, C and D				

Column I

C Axile

A. Marginal

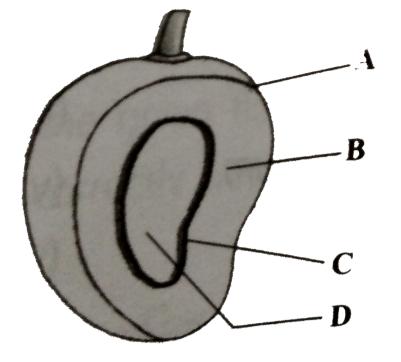
B. parietal

Column II

(ii) Pea

(i) Sunflower, marigold

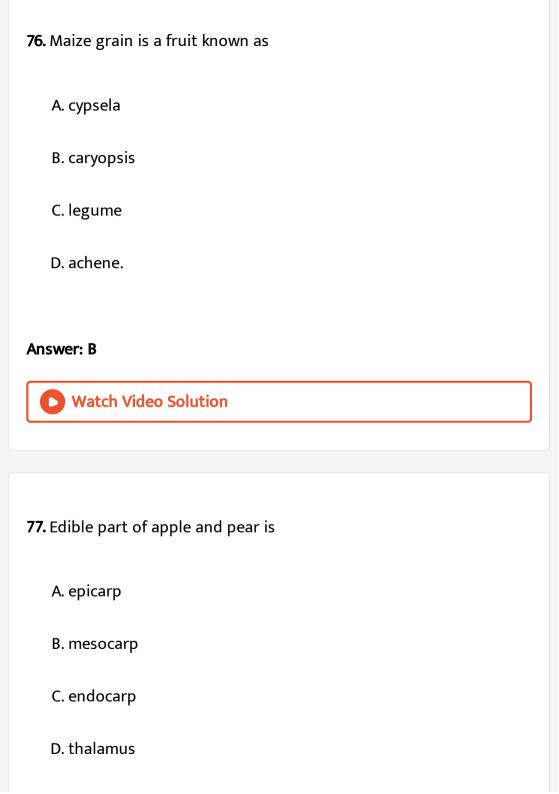
(iii) Mustard, Argemone



 $\begin{array}{c} A. \\ \hline A. \\ \hline Pericarp \\ \hline Pericarp \\ \hline Epicarp \\ \hline B. \\ \hline (A) \\ \hline (B) \\ \hline (C) \\ \hline (D) \\ \hline Epicarp \\ \hline Mesocarp \\ \hline (B) \\ \hline (C) \\ \hline (D) \\ \hline Epicarp \\ \hline (B) \\ \hline (C) \\ \hline (D) \\ \hline (E) \\ (E) \\ \hline ($

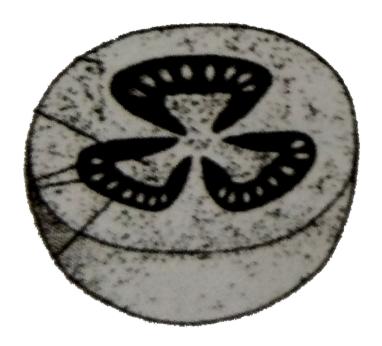
Answer: B





Answer: D





78.

Select the incorrect the statements the given figure .

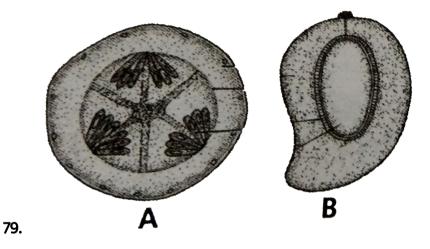
- A. it represents the baccate fruit of Lycopersicum esculentum.
- B. It is derived from a monocarpellary appearpous gynoecium.
- C. It represents the true berry of tomato.

D. Both (b) and (c)

Answer: B



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Identify the given types of fruit select the correct option.

- A. A=pepo, B=Nut
- B. A=Pepo, B =Drupe
- C. A=Balausta,B=Drupe
- D. A=Drupe,B=Pepo

Answer: B



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80. Select the mismatched pair out of the following

- A. Syconus Ficus carica
- B. Sorosis Ananas camosus
- C. Pome Mangifera indica
- D. Cremocarp Coriandrum sativum

Answer: C



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81. X is scar on the seed coat through which the following seeds were attached to the fuit, above the X is a small pore called Y.

Indetify X and Y and select the correct option.

Y \mathbf{X} A. Micropyle Hilum X \mathbf{Y}

В. Hilum Micropyle

X Y

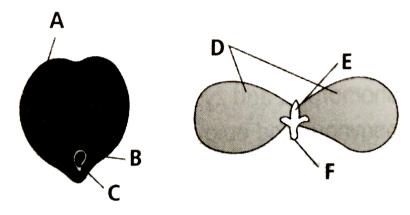
C. Testa Tegmen Y X

Chalaza Micropyle

Answer: B



82. Refer to the given figures showing structure of dicotyledonous seed and select the option that correctly identifies any of the labelled parts



- A. A-Seed coat, B-Cotyledon, C-Plumule
- B. D-Micropyle, E-Hilu, F-Rdicle
- C. B-Hilum, E-Plumule, F-Radicle
- D. C-Cotyledon, D-Micropyle, E-Radicle

Answer: C



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83. Endospermic seeds are found in

A. barley
B. castor
C. pea
D. both (a) and (b)
Answer: D
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84. In albuminous seeds, food is stored inand in exalbuminous
seeds, food is stored in
A. endosperm,cotylendons
B. cotyledons,cotylendons
C. cotyledons,endosperm
D. endosperm, endosperm

Answer: A



85. Cereals, castor and coconut possess seeds.

- A. endospermic
- B. zoospermic
- C. non-albuminous
- D. none of these

Answer: A



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86. Monocotylendonous seeds possess a single cotyledon which is represented by

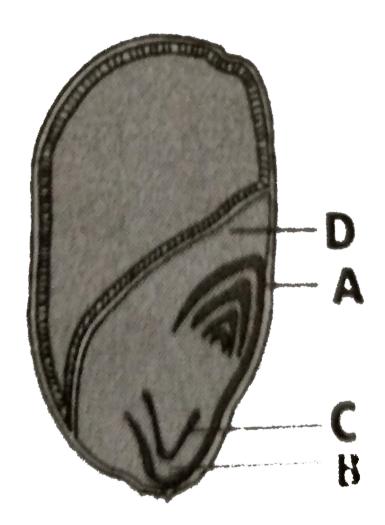
A. tegmen					
B. endosperm					
C. scutellum					
D. aleurone.					
Answer: C					
Watch Video Solution					
87. Coleorhiza and coleoptile are the protective sheaths					
coveringandrespectively.					
A. radicle,plumule					
B. plumule,radicle					
C. plumule,hypocotyl					
D. epicotyl,radicle					

Answer: A



88. Given figure represents longitudinal section of a monocotyledonous embryo.

Identify the parts labelled as A,B, C and D from the list (i-vii) and select the correct option



- (i) Scutellum
- (ii) Coleoptile
- (iii) Shoot apex
- (iv) Epiblast
- (v) Radicle

(vi) Root Cap

(vii) Colerhiza

Answer: B



respectively?

89. Which floral conditions are represented by the symbols \oplus and %

A. Zygomorphic and actinomorphic flowers

B. Actinomorphic and zygomorphic flowers

C. Hypogynous and epigynous flowers

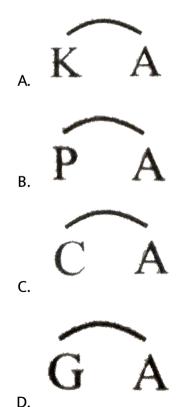
D. Bisexual and unisexual flowers

Answer: B



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90. Which of the following symbols denotes presence of tepals and epitepalous stamens in a flower ?



Answer: B Watch Video Solution

- 91. Marginal placentation is generally found in family
 - A. Leguminosea
 - B. Cucurbitaceae
 - C. Malvaceae
 - D. Brassicaceae

Answer: A



92. Identify the correct feature of the family to which given floral formula belongs.

$$\% \nsubseteq K_{(5)} C_{1+2+(2)} A_{(9)+1} \underline{G}_1$$

- A. Presence of actinomorphic flowers and cruciform corolla
- B. Androecium is commonly diadelphous or monadelphous
- C. Presence of cymose inflorescence
- D. fuit is a berry or capsule

Answer: B



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93. Add the missing floral organs in the given floral formula of Family Fabaceae.

$$\% \ \del{eq:K(5)} K_{(5)} - A_{(9)+1} \underline{G}_{1}$$

A.
$$C_{1+2+2}$$

B.
$$C_{1+2+(2)}$$

C.
$$C_{1+2+3}$$

D. C_5

Answer: B



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94. Which floral family has (9)+1 arragements of anthers in the androecium?

- A. Malvaceae
- B. Rutaceae
- C. Fabaceae
- D. Caesalpinaceae



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95. Match column I with column II and select the correct option from

the given codes

Column II Column II

(Members of Fabaceae) (Economic importance)

A. Gram, sem, moong, soybean (i) Timber

B. Soybean, groundnut (ii) Medicine

C. Indigofera (iii) Fodder

D. Sunhemp (iv) Fiberes

E. Sesbania, Triforlium (v) Dye

F. GDalbergia sissoo (vi) Edible oil

G. Glycyrrhiza glabra (vii) Pulses

A. A-(i),B-(ii),C-(iii),D-(iv),E-(v),F-(vi),G-(vii)

B. A-(vii),B-(vi),C-(v),D-(iv),E-(iii),F-(i),G-(ii)

C. A-(ii),B-(iv),C-(vi),D-(i),E-(iii),F-(v),G-(vii)

D. A-(i),B-(iii),C-(v),D-(vii),E-(ii),F-(iv),G-(vi)

Answer: B



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96. A plant has a butterfly shaped flower with one standerd, two wing like and two keel petals. The plants belongs to the family

- A. Papilionaceae
- B. Asteraceae
- C. Malvaceae
- D. Rubiaceae

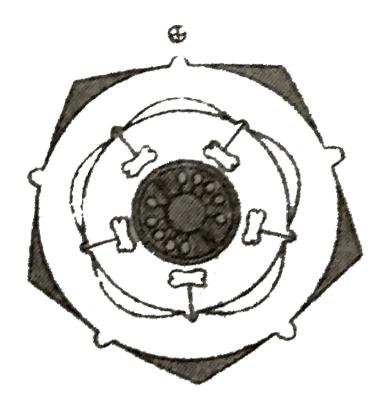
Answer: A



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97. Presistent calyx is the character of plants belonging to Family

A. Solanaceae B. Malvaceae C. Cruciferae (Brassicaceae) D. Compositae. Answer: A **Watch Video Solution** 98. Study carefully the given floral diagram and select the option which correctly represents the reltated floral fomula.



$$\text{A.} \ ^{^{0}} \ ^{_{0}} \ ^{\cancel{0}} \ ^{\cancel{0}$$

c.
$$\oplus \not \circ P_{5+5}A_{(5)}\underline{G}_{(2)}$$

D.
$$\bigoplus_{(5)} \overbrace{K_{(5)}C_{(5)}} A_5 \underline{G}_{(2)}$$

Answer: D



99. The floral fomula belongs to the family

A. Fabaceae

B. Asteraceae

C. Solanaceae

D. Liliaceae

Answer: C



Flowers

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100. Identify the family which shows the following diagnostic features.

ovary

pentamerous, gynoecium-bicarpellary,syncarpous, placed obliquely, placentation axile, placenta swollen.

A. Solanaceae

- B. Leguminosae
- C. Papilionaceae
- D. Liliaceae

Answer: A



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101. which of the following floral formulae corresponds to Family Liliaceae ?

A. Br
$$\oplus Q^{7}$$
 $P_{3+3}A_{3+3}\overline{G_{(3)}}$

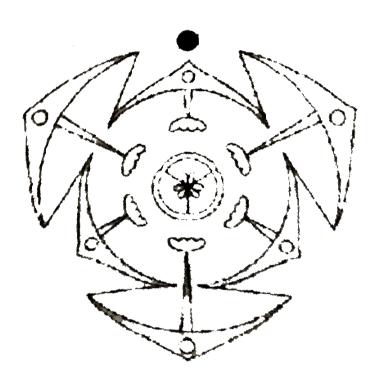
B. Br
$$\oplus$$
 \bigcirc P₃₊₃ A₀ $\underline{G_{(3)}}$

C. Br
$$\oplus \not \circ$$
 $P_3 A_3 G_{(3)}$

D. Br
$$\oplus Q P_{(3+3)} A_{3+3} G_{(3)}$$

Answer: D

102. Study carefully the given floral diagram and select the option which correctly represents the related floral formula.



A.
$$\bigoplus Q P_{(3+3)} A_{3+3} \underline{G}_{(3)}$$

A.
$$\bigoplus \stackrel{\frown}{P_{(3+3)}A_{3+3}} \stackrel{\underline{G}_{(3)}}{\underline{G}_{(3)}}$$
B. $\bigoplus \stackrel{\frown}{P_6} \stackrel{\frown}{A_6} \stackrel{\underline{G}_{(3)}}{\underline{G}_{(3)}}$

C.
$$\bigoplus_{f} P_{5+5} A_{(5)} \underline{G}_{(2)}$$
D. $\bigoplus_{f} K_{(5)} C_{(5)} A_{(5)} \underline{G}_{(2)}$

D.
$$\bigoplus \oint K_{(5)}C_{(5)} \stackrel{\lambda}{A}_{(5)}\underline{G}_{(2)}$$

Answer: A



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103. Identify the missing words (A,B,C and D) and select the correct option.

Family	Inflores- cence	Flower	Stamens /tepals	Gynoecium
Fabaceae	A	В	10	D
Solanaceae	Solitary, axillary or cymose	Actino- morphic	5	Bicarpellary
Lilliaceae	Solitary, cymose or racemose	Actino- morphic	beliborn to	Tricarpellary

DBRacemose Zygomorphic 3+3 Monocarpellary

- B. $\frac{A}{\text{Racemose}}$ $\frac{B}{\text{Actinomorphic}}$ $\frac{C}{5}$ $\frac{D}{\text{Bicarpellary}}$
- C. Cymose Zygomorphic 3+3 Tricarpellary
- D. $\frac{A}{\text{Cymose}} \quad \frac{B}{\text{Actinomorphic}} \quad \frac{C}{5} \quad \text{Multicarpellary}$

Answer: A



104. Which of the following is a correct combination of family and its respective members ?

- A. Fabaceae-Colchicum autumnale, Trifolium alexandrinum
- B. Solanaceae-Withania somnifera, Petunia
- C. Liliaceae-Sesbania, Asparagus
- D. Asteraceae-Sonchus asper, Nicotiana tabacum

Answer: B

105. Select the pair which contains monocotyledonous families.

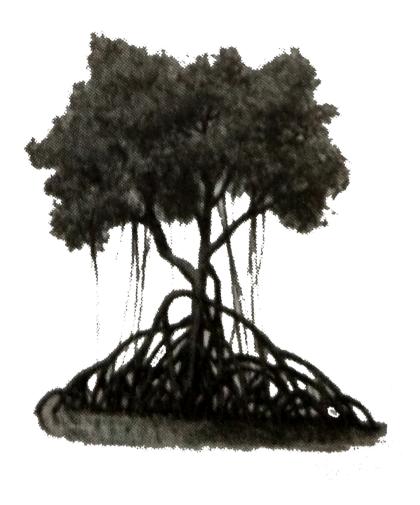
- A. Solanaceae and Brassicaceae
- B. Fabaceae and Asteraceae
- C. Liliaceae and Poaceae
- D. None of these

Answer: C



106. Roots are modified to perform specific functions other than their normal functions. The given figure shows modification of the roots of

mangrove plant. Select the incorrect option regarding it.



A. The stilt roots of red mangrove help in breathing

B. The root system is highly entangled, huge and extensive under the water.

- C. A large number of animals such as small fishes, crustaceans,
 - seahorses, etc. find shelter in this root system
- D. Besides providing mechanical support, these roots also perform photosynthetic functions in the plant.

Answer: D



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- 107. Read the following statements.
- (i)In Limnophila heterophylla, the lamina of submerged leaves is very much dissected while the lamina of aerial leaves is entire. This variation in the form of lamina is referred to as _____.
- (ii)Potato tubers, when exposed to light, turn green due to the increased production of a glycoalkaloid named_____.
- (iii)In _____,ovary arises from the bottom of the cup-shaped thalamus and androperianth arises from the rim of the cup-shaped thalamus.

(iv)Underground stems can be differentiated from roots by ____ of axillary buds on the nodes.

Select the correct fill-ups out of the following for the above statements

A. ⁽ⁱ⁾ (ii) (iii) (iv) developmental heterophylly solanine Rosa presence (ii) (iii) (iv) (i) B. environmental heterophylly solanine Prunus presence C. (i) (ii) (iii)(iv)

environmental heterophylly chlorophyll Prunus absence

D. (i) (ii) (iii) (iv) adaptive heterophylly lycopene Cucurbita absence

Answer: B



108. Consider the following statements.

well developed nodes and internodes.

(i)In Gynandropsis, Passiflora , etc., thalamus is elongated and shows

(ii)The floral buds in Agave, Allium, etc., may sometimes get modified into vegetative buds or bulbils.

(iii)Sepals are concerned with protection of flowers in bud condition

(iv)Stamens and carpels serve as the male and female reproductive

and petals help to attract insects for pollination.

an evidence that flower is a modified shoot?

Which of the following combinations of above statements provides

A. (i) and (ii)

organs respectively.

B. (ii) and (iii)

C. (iii) and (iv)

D. (i) and (iv)

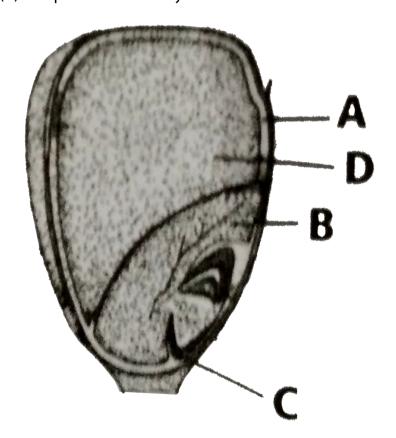
Answer: A



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109. In the given figure of maize grain certain regions are labelled as A,B,C and D.Match them with the codes (1,2,3 and 4) given below and select the correct option

- (1) The main nutritive tissue Itbr (2) Shield shaped cotyledon
- (3)Protection sheath of radicle
- (4) The proteinaceous layer



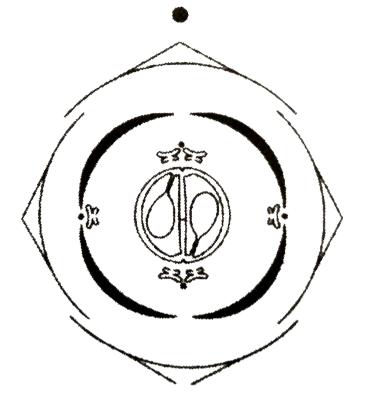
- A. A-(1), B-(3), C-(4), D-(2)
- B. A-(2), B-(3), C-(1), D-(4)
- C. A-(1), B-(2), C-(3), D-(4)
- D. A-(4), B-(2), C-(3), D-(1)

Answer: D



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110. Which of the following features characterise the family represented by the given floral diagram?



- A. Cruciform corolla with quincuncial aestivation
- B. Stamens with didynamous condition
- C. Bicarpellary, syncarpous ovary with parietal placentation
- D. Inflorescence usually cymose

Answer: C



111. Rearrange the following zones as seen in the root in vertical section and choose the correct option.

A.Root hair zone, B.Zone of meristems

C.Root cap zone, D.Zone of maturation

E.Zone of elongation

A. C,B,E,A,D

B. A,B,C,D,E

C. D,E,A,C,B

D. E,D,C,B,A

Answer: A



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112. In an inflorescence where flowers are borne laterally in an acropetal succession, the position of the youngest floral bud shall be

- A. proximal
- B. distal
- C. intercalary
- D. anywhere

Answer: B



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113. The mature seeds of plants such as gram and peas, possess no endosperm, because

- A. these plants are not angiosperms
- B. there is no double fertilisation in them

C. endosperm is not formed in them

D. endosperm gets used up by the developing embryo during seed development.

Answer: D



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114. Roots developed from parts of the plant other than radicle are called

A. tap roots

B. fibrous roots

C. adventitious roots

D. nodular roots

Answer: C



115. Venation is a term used to describe the pattern of arrangement of

A. floral organs

B. flower in inflorescence

C. veins and veinlets in a lamina

D. all of them

Answer: C



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116. Endosperm, a product of double fertilisation in angiosperm is absent in the seeds of

A. coconut

C. maize D. castor **Answer: B Watch Video Solution** 117. Many pulses of daily use belong to one of the families below (tick the correct answer) A. Solanaceae B. Fabaceae C. Liliaceae D. Poceae

B. orchids

Answer: B



118. The placenta is attached to the developing seed near the

A. testa

B. hilum

C. micropyle

D. chalaza

Answer: B



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119. Which of the following plants is used to extract the blue dye?

A. Trifolium

B. Indigofera

C. Lupin

D. Cassia

Answer: B



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120. Match the followings and choose correct option.

Group A Group B

A. Aleurone layer (ii) Without fertilisation

B. Parthenocarpic fruit (ii) Nutrition

C. Ovule (iii)Double fertilisation

D. Endosperm (iv)Seed

A. A-(i),B-(ii),C-(iii),D-(iv)

B. A-(ii),B-(i),C-(iv),D-(iii)

C. A-(iv),B-(ii),C-(i),D-(iii)

D. A-(ii),B-(iv),C-(i),D-(iii)

Answer: B

121. Assertion:Fibrous root system consists of large number of fine, fibrous roots developing form the base of the stem.

Reason:Fibrous root system is found in dicots only.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: C



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122. Assertion: Avicennia has pneumatophores.

Reason:Pneumatophores help the plant to get oxygen for respiration.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: A



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123. Assertion:Stems of some plants protect them from browsing animals.

Reason:Axillary buds of stems of these plants are modified into thorns.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: A



124. Assertion:In some leguminous plant, the leaf base is swollen.

Reason: The swollen leaf base is called pulvinus.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: B



125. Assertion:Leaves of monocot plants generally possess reticulate venation.

Reason:Leaves of dicot plants generally, possess parallel venation.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: D



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126. Assertion: The alternate type of phyllotaxy is the arrangement of leaves in which a single leaf arises at each node in alternate manner.

Reason: The alternate type of phyllotaxy is seen in China rose and mustard plant.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: B



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127. Assertion:Thy cymose type of inflorescence has limited growth.

Reason:In cymose inflorescence the main axis terminates in a flower.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the

correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: A



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128. Assertion:In some flowers like lily, perianth is a term used when calyx and corolla are not distinct.

Reason:Calyx and corolla are the reproductive organs.

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

Answer: C



129. Assertion: In imbricate aestivation, out of five petals, one is completely internal, one is completely external and in each of the remaining three petals, one margin is internal and the other is external

Reason:Ascending imbricate aestivation is found in Cassia and gulmohur.

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

Answer: B



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130. Assertion: Monoadelphous stamens are found in pea.

Reason:In pea, stamens are united into one bunch or one bundle.

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

Answer: D



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131. Assertion: The placentation in which the placenta forms a ridge along the ventral suture of ovary and ovules are borne on this ridge forming two rows is called parietal placentation.

Reason:The marginal placentation has ovules developed on the inner wall of the ovary or on peripheral part.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: D



132. Assertion:Fruit is the mature or ripened ovary developed after fertilisation.

Reason:Fruit formed without fertilisation of the ovary is called parthenocarpic fruit.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: B



133. Assertion:The outermost covering of a dicotyledonous seed in the seed coat.

Reason: The seed coat has two layers-outer testa and inner helium.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: C



134. Assertion: G is the symbol for inferior ovary.

Reason: Adhesion is indicated by enclosing the figure within bracket.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: D



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135. Assertion: The floral formula of Family Solanaceae is

$$\bigoplus Q' K_{(5)} \widehat{C_{(5)}} A_5 \underline{G}_{(2)}$$

Reason:This floral formula of Solanaceae tells that flower is bisexual, sepals five, petals five, stamens five and gynoecium tricarpellary, trilocular with many ovules.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion and reason are false.

Answer: C



