CHAPTER



Plant Morphology

PRACTICE QUESTIONS

The Root

1.	Angiosperms a	are charact	erized by the	e presence	of	Fruit	(d)	All of these
•					(0)		(u)	in or these
2.	In majority of	dicot, the	direct elonga	ation of the	rad	icle leads to the for	matio	on of
	(a) Primary ro	oot (b) Secondar	ry root	(c)	Tertiary root	(a)	None of these
3.	The primary ro	oot and its	branches co	nstitute				
	(a) Fibrous ro	ot system			(b)	Tap root system		
	(c) Both (a) an	nd (b)			(d)	None of these		
4.	In wheat (mon	ocot)						
	(a) Primary ro	ot is short	lived					
	(b) Primary ro	ot replace	d by fibrous	roots				
	(c) Fibrous ro	ots arises :	from the bas	e of stem				
	(d) All are con	rect						
5.	Adventitious r	oots are fo	und in			-		
	(a) Grass	(b) Monestra	a	(c)	Banyan tree	(d)	All of these
6.	Adventitious re	oots arise	from part otl	ner than				
	(a) Hypocotyl	(b) Epicotyl		(c)	Plumule	(d)	Radicle
7.	Functions of re-	oot are						
	(a) Absorption	n of water	and mineral	from soil				
	(b) Anchoring	of plant i	n soil					
	(c) Storage of	food mate	erial and syn	thesis of pl	ant	growth regulator		
	(d) All of thes	e						
8.	What is the nu	mber of re	gions in whi	ch a root is	s div	vided?		
	(a) 1	(b) 2		(c)	3	(d)	4
9.	Root is covered	d at the ap	ex by a thim	ble-like str	uctu	ire called		
	(a) Root cap	(b) Radicle		(c)	Coleorhiza	(d)	Coleoptile
10.	The root region	n is arrang	ed proximal	to distal pa	art i	n the following mar	ner	
	(a) Zone of ce	ll elongati	on-Zone of	cell matur	atio	n – Zone of cell div	isior	1
	(b) Zone of ce	ll division	-Zone of c	ell elongati	on -	- Zone of cell matu	ratio	n
	(c) Zone of ce	ll maturat	ion-Zone of	f cell elong	atio	n – Zone of cell div	isior	1
	(d) Zone of ce	ll maturat	ion – Zone o	of cell divis	ion	- Zone of cell elong	gatio	n

	(a) Zone of cell division(c) One of cell matura	on tion	(b) (d)	Zone of cell elonga All of these	ation	
12.	Find out the incorrect s (a) Root hair absorbs (b) Root increases in l (c) Meristematic regio (d) Root cannot synthe	statement: water and mineral from t ength due to region of el on have thin walled cell v esize plant growth regula	he s ong vith	oil. ation. dense cytoplasm.		
13.	Which of the following (a) Carrot	g is an exception for the (b) Turnip	mod (c)	ification of the tap r Sweet potato	root? (d)	All of these
14.	Prop or pillar roots are (a) Carrot	found in (b) Sweet potato	(c)	Banyan tree	(d)	Maize
15.	Maize and sugarcane c(a) Storage root(c) Pneumatophores	ontain	(b) (d)	Stilt root Prop roots		
16.	Find out the incorrect s (a) Sweet potato has r (b) Still root arises fro (c) Rizophora posses p (d) Pneumatophores ar	statement: oot modification for stor m lower nodes of the ste oneumatophores. re meant for anaerobic re	age m. espii	of food. ration.		
The S	Stem					
17.	Which of the following(a) It is developed from(b) It bears nodes and(c) It bears only termine(d) Its main function is	g is incorrect of stem? m the plumule of embryo internodes. nal bud not axillary bud. s spreading of branches a	o of and	a germinating seed. bear leaves, flowers	and	fruits.
18.	Functions of stem are(a) Conduct water, min(b) Some perform stor(c) Some perform function(d) All of these	neral and photosynthates rage food, support and pr ction of vegetative propa	s. rotec igati	ction. on.		
19.	Young stems are generated (a) Woody (c) Green and photosy	ally	(b) (d)	Dark brown in colo All of these	or	
20.	Underground stem stor (a) Zaminkand	res food in the following (b) Colocasia	exc (c)	ept Ginger	(d)	Sugarcane
21.	Which stem act as an o (a) Potato	rgan of perennation? (b) Ginger	(c)	Colocasia	(d)	All of these
22.	Which of the following (a) Cucumber	g is a gourd? (b) Pumpkins	(c)	Watermelon	(d)	All of these

11. Root hairs arise from

- 23. Which of the following is correct about gourds? (a) Stem tendril develops from apical bud. (b) Stem tendril are slender and spirally coiled. (c) Stem tendril doesn't help in climbing. (d) Stem tendril develops from radicle. **24.** Select the incorrect matching: (a) Thorn – Citrus, Bougainvillea (b) Flattened stem – Opuntia (d) Stem tendril - Colocasia (c) Underground stem – Turmeric 25. The lateral branches original from basal and underground portion of the main stem, grow horizontally beneath the soil and then come out obliquely upward giving rise to leafy shoots seen in case of (a) Banana (b) Pineapple (c) Chrysanthemum (d) All of these **26.** A slender lateral branch arises from the base of the main axis and after growing aerially for sometime arch downward to touch the ground seen in case of (a) Mint (b) Jasmine (c) Pistia (d) Both (a) and (b) 27. A lateral branch with short internodes and each node bearing a rosette of leaves and a tuft of roots are found in aquatic plants like (a) Pistia (b) Eichhornia (c) Wolffia (d) Both (a) and (b) **28.** Select the correct statement from the following: A. Fleshy cylindrical stem in Euphorbia carry out photosynthesis. B. Pistia and eichhornia are example of offset. C. Underground stem of grass and strawberry spread to new niche and when older part die new plants are formed. D. Thorns are woody, straight and pointed. (a) A and B only (b) B and D only (c) B and C only (d) All of these 29. The most important vegetative organ for photosynthesis is (a) Stem (b) Leaf (c) Root (d) All of these The Leaf **30.** Which of the following is correct about leaf? (a) It has originated from root apical meristem. (b) It is arranged in basipetal order. (c) It arises from axillary bud. (d) It bears a bud in its axil. **31.** Which of the following is incorrect about leaf? (a) It is arranged in acropetal order (b) It develops from node (c) It is generally flattened in shape (d) It is arranged in basipetal order 32. Typical leaf consist of (a) Petiole (b) Leaf base (c) Lamina (d) All of these **33.** The leaf is attached to the stem by the leaf base and may bear two lateral small leaf like structure called
 - (a) Leaflet (b) Lamina (c) Stipule (d) Leaf blade

34.	Select the correct statA. In monocot leaf, aB. In all leguminousC. The lamina or leaD. Veins provide rig	ement from the following the base expands into a sh plants, the leaf base may if blade is the green expan- idity to leaf blade.	g: neath becc nded	covering the ste ome swollen, wh part of the leaf y	em partia ich is ca with veir	ally or wholly. Illed the pulvinus. and veinlets.
	(a) A and B only	(b) C and D only	(c)	All except B	(d)	All except D
35.	Leaf can be differentia (a) Shape	ated by (b) Margin and apex	(c)	Surface	(d)	All of these
36.	Long thin and bringing	petiole allows the leaf bla air to leaf surfaces.	ide to	flutter in wind,	thereby	cooling of the leaf
	(a) Hard, fresh	(b) Flexible, fresh	(c)	Hard, fresh	(d)	Rigid, fresh
37.	The arrangement of a (a) Venation	rteries and arterioles in th (b) Phyllotaxy	ne lan (c)	nina of leaf is te Inflorescence	rmed as (d)	None of these
38.	Which of the followinA. Parallel venationB. Parallel venationC. Reticulate venationD. Reticulate venation(a) A and D only	ng is correct about venation is generally found in more is generally found in diccore on is generally found in more on is generally found in do (b) B and C only	on? locot ot. lonoc icot. (c)	cot. B and D only	(d)	A and C only
39.	Bud is present in axil (a) Simple leaf	(b) Compound leaf	(c)	Leaflet	(d)	Both (a) and (b)
40.	Pinnately compound I (a) Lemon	leaf found in (b) Bombax	(c)	Desmodium	(d)	Neem
41.	Palmately compound (a) Neem	leaf is found in (b) Rose	(c)	Silk cotton	(d)	Mimosa pudica
42.	Find out the correct nA. Palmately compoB. PhyllotaxyC. Pinnately composedD. Venation(a) A and B only	natching: und leaves – Leaf let atta – Pattern of ar und leaves – Leaflet attac – Arrangemen (b) B and C only	ched rrang thed t it of (c)	to common axis ement of leaves to a common po veins and veinle C and D only	s rachis on stem int i.e. a ts in the (d)	or branch t the tip of petiole lamina of leaf B and D only
43.	Phyllotaxy is usually (a) Alternate	of three types, namely, (b) Whorled	(c)	Opposite	(d)	All of these
44.	Select the correct mat	cching:				
	Column IColumnA. AlternateX.	Jumn II Single leaf arises at each	1 nod	e 1. Chin sunfl	n II 1a Rose, 1 lower	mustard,
	B. WhorledY.C. OppositeZ.	More than 2 leaf arises a Pair of leaf arises at node	it nod e	le 2. Alste 3. Calo	onia tropis ai	nd guava
	(a) A-X-1, B-Y-2, (c) A-Y-3, B-Z-1, 0	C-Z-3 C-Y-2	(b) (d)	A-Y-3, B-Z-2 A-Z-3, B-Y-2	, C–X–1 , C–X–1	l l

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45.	Which of the following posses alternate phy (a) Mustard (b) China rose	yllotaxy except? (c) Sunflower	(d) Calotropis
46.	In which plant the leaves are small and shor green and synthesize food, such petiole is k (a) Sweat pea (b) Clematis	t-lived. The petiole in the nown as phyllode? (c) Australian acacia	se plant expand, become a (d) Eichhornia
47.	Select the incorrect matching: (a) Leaf into tendril – Pea (c) Fleshy leaf – Onion and garlic	(b) Leaf into spine –(d) Whorled phyllota	Cacti axy – Calotropis
48.	Which of the following pair represent insect(a) Pitcher plant, australian acacia(b) Venus fly trap, calotropis(c) Pitcher plant, venus fly trap(d) Silk cotton, neem	tivorous plant?	
49.	In pitcher plant, the pitcher is modified into (a) Root (b) Stem	(c) Leaf	(d) Flower
50.	 In floral meristem (a) Internode does not elongate (b) Axis get condensed (c) The apex produced different kinds of instead of leaves. (d) All of these 	floral appendages latera	Ily at successive nodes
The l	Inflorescence		
51.	The arrangement of flowers on the floral ax (a) Phyllotaxy (b) Aestivation	is is termed as (c) Inflorescence	(d) Placentation
52.	 In cymose the type of inflorescence is A. Main axis terminates into flower. B. Flower born in basipetal order. C. Main axis not terminates into flower. D. Flower born in acropetal order. (a) A and B only (b) C and D only 	(c) A and C only	(d) B and C only
53.	 In racemose type of inflorescence, A. Main axis terminates into flower. B. Flower born in basipetal order. C. Main axis not terminates into flower. D. Flower born in acropetal order. (a) A and B only (b) C and D only 	(c) A and C only	(d) B and C only
The l	Flower		
54.	Which of the following is correct about flowA. Reproductive unit in angiosperm.B. Calyx and corolla are reproductive orgaC. Typical flower has four kinds of whorlsD. Whorls arranged successively on thalar	ver? ins. nus or receptacle.	

(a) All except C (b) All except D (c) All except B (d) All except A

A. Actinomorphic – When flower can be divided into two equal radial halves in any radial plane passing through the centre. - When flower can be divided into two similar halves only in one B. Zygomorphic particular vertical plane. When flower cannot be divided into two similar halves by any vertical C. Asymmetric plane passing through centre. D. All are correct **56.** Asymmetric flower is found in (a) Pea (d) Canna (b) Datura (c) Bean 57. How many of the following contains zygomorphic flower? Pea, Gulmohur, Bean, Cassia, Mustard, Datura, Chilli, Sesbania, Lupin, Muliathi (a) 6 (b) 7 (c) 4 (d) 8 58. The reduced leaf found at the base of the pedicel is known as (a) Leaflet (b) Stipule (d) Calyx (c) Bract 59. Based on the position of calyx, the corolla and androecium in respect of the ovary on thalamus, the flower is of how many types (a) 1 (b) 2 (c) 3 (d) 4 **60.** Select the correct matching: Column I Column II Column III 1. Hypogynous A. Gynoecium occupies the highest X. Mustard, Brinjal, China rose position 2. Epigynous B. Gynoecium is situated in the centre Y. Plum, peach, rose 3. Perigynous C. Margin of thalamus grows upward Z. Guava, cucumber, ray florets of sunflower enclosing ovary completely (a) 1-A-X, 2-B-Y, 3-C-Z (b) 1–A–X, 2–C–Z, 3–B–Y (c) 1-B-Y, 2-A-X, 3-C-Z(d) 1-A-X, 2-B-Z, 3-C-Y **61.** Which flower posses superior ovary? (a) Mustard (b) China rose (c) Brinjal (d) All of these **62.** Select the correct matching: (a) Gamosepalous - Sepal is united (b) Polysepalous – Sepals are free (c) Gamopetalous - Petals are united (d) All of these **63.** The shape of corolla may be (a) Tubular (b) Funnel-shaped (c) Bell-shaped (d) All of these 64. The mode of arrangement of sepals or petals in floral bud with respect to its other members of the same whorl are known as (d) Hibernation (a) Phyllotaxy (b) Inflorescence (c) Aestivation **65.** Sepals or petals in a whorl just touch one another at the margin, without overlapping is found in (a) China rose (b) Pea (c) Cassia (d) Calotropis **66.** Twisted aestivation is found in all except (a) Cotton (b) China rose (c) Lady's finger (d) Gulmohar

55. Select the incorrect matching:

67.	If the margins or sepa known as	ls or petals overlap one estivation.	ano	ther but not in any	parti	icular direction is
	(a) Vexillary	(b) Twisted	(c)	Imbricate	(d)	Gulmohar
68.	Which is false for vexi(a) Two smallest anter(b) Two lateral petals a(c) The largest standar(d) The largest standar	llary or papilionaceous ior petals are known as are known as wing. rd petal is posterior. rd petal is anterior and o	aesti keel. werla	vation? aps wing.		
69.	Select the correct mate Aestivation (a) Valvate (b) Twisted (c) Imbricate (d) Vexillary	hing: – – – – – –		Example Cassia China rose, ladyfin Cassia and Gulmol Pea, Bean, Aloe, Te	iger, har ulip	calotropis
70.	Stamen consists of (a) Stalk or filament	(b) Stigma	(c)	Anther	(d)	Both (a) and (c)
71.	Anther usually posses (a) One sac	(b) Two sacs	(c)	Three sacs	(d)	Four sacs
72.	A sterile stamen is call (a) Monadelphous	ed (b) Epipetalous	(c)	Epiphyllous	(d)	Staminode
73.	Epiphyllous stamens at (a) Sunn hemp	re found in (b) Ashwagandha	(c)	Mustard	(d)	Lily
74.	Epipetalous stamens an (a) Trifolium	re found in (b) Brinjal	(c)	Asparagus	(d)	Indigofera
75.	The stamens are united (a) Pea	into one bunch (Monoa (b) Citrus	adelp (c)	hous) condition is f Arhar	ound (d)	l in China rose
76.	Diadelphous condition (a) Citrus	is found in (b) Pea	(c)	China rose	(d)	Tomato
77.	A carpet consists of (a) Stigma	(b) Ovary	(c)	Style	(d)	All of these
78.	Which of the following(a) Ovary is enlarged(c) Style is elongated to	g is incorrect about carp basal portion be over ovary	et? (b) (d)	Stigma is usually a Style is the receptive	t tip surfa	of style ice for pollen grains
79.	Apocarpous condition (a) Mustard	is found in (b) Tomato	(c)	Lotus	(d)	All of these
80.	Syncarpous condition a (a) Mustard	s found in (b) Lotus	(c)	Rose	(d)	All of these
81.	After fertilization (a) Ovule develops int (c) Ovary wall change	o seed s to fruit wall	(b) (d)	Ovary matures to f All of these	ruit	

82.	Arrangement of ovules within the ovary is know (a) Placentation (b) Aestivation	own as (c) Fragmentation (d) Hibernation	
83.	Match the column:-ColumnColumn I-1. PeaA. Marginal-1. PeaB. Parietal-2. MustaC. Axile-3. DiantaD. Central and free central-4. ChinaE. Basal-5. Sunfl	n II stard and argemone nthus and primrose na rose, tomato, lemon flower and marigold	
	(a) A-1, B-2, C-4, D-3, E-5 (c) A-4, B-1, C-3, D-5, E-4	(b) A-2, B-1, C-3, D-4, E-5 (d) A-5, B-2, C-4, D-2, E-3	
84.	Ovary is one-chambered but it becomes two ch is found in(a) Argemone and mustard(c) Rose and tomato	(b) Dianthus and primrose(d) Pea	m
85.	A placentation in which ovule are born on cent(a) Argemone and mustard(c) Rose and tomato	tral axis and septa are absent, is found in(b) Dianthus and primrose(d) Pea	
86.	A placentation, in which placenta develops at this found in(a) Argemone and mustard(c) Rose and tomato	(b) Dianthus and primrose(d) Sunflower and marigold	≥d,
The I	Fruit		
87.	Fruit is(a) The resultant ripened ovary(c) A characteristic feature of flowing plant	(b) Formed generally after fertilization(d) All of these	
88.	What is the name of the pericarp when it is thic (a) Epicarp (b) Mesocarp	ick and fleshy? (c) Endocarp (d) All of these	
89.	In which fruit the mesocarp is fibrous?(a) Mango(b) Coconut	(c) Both (a) and (b) (d) None of these	
90.	Which is the edible part in mango?(a) Thin epicarp(c) Stony hard endocarp	(b) Fleshy mesocarp(d) All of these	
91.	In coconut and mango, the fruit is known as (a) Legume (b) Pod	(c) Drupe (d) Samara	
92.	If fruit is developed without fertilization of the (a) Parthenocarpic fruit (c) Fleshly fruit	e ovary, it is called (b) Apomictic fruit (d) Polyembryonic fruit	
93.	Mango is developed from(a) Monocarpellary inferior ovary(c) Multicarpellary inferior ovary	(b) Monocarpellary superior ovary(d) Multicarpellary superior ovary	

The Seed

94.	Seed is made up of	(b) Embruo		(a)	Poth (a) and (b)	(4)	None of these
05	(a) Seed Coat	(b) Enoryo		(0)	Both (a) and (b)	(u)	None of these
95.	(a) A radicle			(h)	Embryonal axis		
	(c) One or two cotyled	lons		(d)	All of these		
96.	The following are mor	locots except		Ì,			
	(a) Wheat	(b) Maize		(c)	Sugarcane	(d)	Gram
97.	The following are dico	ts except					
	(a) Bean	(b) Gram		(c)	Pea	(d)	Maize
98.	Which of the following	g is correct about d	licot se	ed?			
	A Micropyle is prese	nt above the hilum	ı.				
	B. At the ends of emb	bryonal axis the rad	dicle ar	nd p	lumule is present.		
	D Cotyledons are ge	vers. nerally without for	nd reser	rve			
	(a) A and B only	(b) B and C only	/	(c)	C and D only	(d)	A and D only
99.	Following are the non-	endospermic seed	except		2		2
	(a) Bean	(b) Gram	P	(c)	Pea	(d)	Castor
100.	Which layer is called a	leurone laver?					
	(a) Protein	(b) Carbohydrate	e	(c)	Lipid	(d)	All of these
101.	The plumule and radic	al in monocot seed	are en	clos	ed in sheaths which	are	called
	and respec	tively.					
	(a) Coleoptile and scu	tellum		(b)	Scutellum and cole	orhi	za
	(c) Coleoptile and col	eorhiza		(d)	Coleorhiza and col	eopt	ile
102.	Select the incorrect sta	tement among the	follow	ing:			
102.	Select the incorrect stat A. Monocot seeds are	tement among the generally endospe	follow ermic.	ing:	an availy fugad with	famit	wall
102.	Select the incorrect state A. Monocot seeds are B. In maize, the seed C. In monocot seed to	tement among the generally endospected coat is membranow he single large ship	follow ermic. us and eld sha	ing: is go	enerally fused with	fruit	wall. utellum
102.	Select the incorrect stat A. Monocot seeds are B. In maize, the seed C. In monocot seed, t D. In orchids, the see	tement among the generally endospected coat is membrano he single large shid ds are non-endospected	follow ermic. us and eld shaj ermic.	ing: is g pe c	enerally fused with otyledon is known	fruit as sc	wall. utellum.
102.	Select the incorrect stat A. Monocot seeds are B. In maize, the seed C. In monocot seed, t D. In orchids, the see (a) A and B only	tement among the e generally endospected coat is membranow he single large shid ds are non-endospected (b) C only	follow ermic. us and eld sha ermic.	ing: is g pe c (c)	enerally fused with otyledon is known D only	fruit as sc (d)	wall. utellum. None of these
102. 103.	Select the incorrect stat A. Monocot seeds are B. In maize, the seed C. In monocot seed, t D. In orchids, the see (a) A and B only Which family is known	tement among the e generally endospe coat is membrano he single large shid ds are non-endospe (b) C only n as the 'potato' fa	follow ermic. us and eld sha ermic. mily?	ing: is g pe c (c)	enerally fused with otyledon is known D only	fruit as sc (d)	wall. utellum. None of these
102. 103.	Select the incorrect stat A. Monocot seeds are B. In maize, the seed C. In monocot seed, t D. In orchids, the see (a) A and B only Which family is known (a) Fabaceae	tement among the e generally endospo coat is membranov he single large shid ds are non-endospo (b) C only n as the 'potato' fa	follow ermic. us and eld shaj ermic. mily?	ing: is g pe c (c) (b)	enerally fused with otyledon is known D only Solanaceae	fruit as sc (d)	wall. utellum. None of these
102. 103.	Select the incorrect stat A. Monocot seeds are B. In maize, the seed C. In monocot seed, t D. In orchids, the see (a) A and B only Which family is known (a) Fabaceae (c) Liliaceae	tement among the e generally endospe coat is membrano he single large shid ds are non-endospe (b) C only n as the 'potato' fa	follow ermic. us and eld shaj ermic. mily?	ing: is g pe c (c) (b) (d)	enerally fused with otyledon is known D only Solanaceae Cruciferae (Brassie	fruit as sc (d) cacea	wall. utellum. None of these ne)
102. 103. <u>Techn</u>	Select the incorrect state A. Monocot seeds are B. In maize, the seed C. In monocot seed, t D. In orchids, the see (a) A and B only Which family is known (a) Fabaceae (c) Liliaceae hical Description of Fl	tement among the e generally endospe coat is membrano he single large shid ds are non-endospe (b) C only n as the 'potato' fa	follow ermic. us and eld shaj ermic. mily?	ing: is go pe c (c) (b) (d)	enerally fused with otyledon is known D only Solanaceae Cruciferae (Brassio	fruit as sc (d) cacea	wall. utellum. None of these ne)
102. 103. <u>Techn</u> 104.	Select the incorrect state A. Monocot seeds are B. In maize, the seed C. In monocot seed, the D. In orchids, the seed (a) A and B only Which family is known (a) Fabaceae (c) Liliaceae hical Description of FI Find out the correct material	tement among the e generally endospo coat is membrano he single large shid ds are non-endospo (b) C only n as the 'potato' fa <u>owering Plant</u> atching:	follow ermic. us and eld sha ermic. mily?	ing: is g pe c (c) (b) (d)	enerally fused with otyledon is known D only Solanaceae Cruciferae (Brassio	fruit as sc (d) cacea	wall. utellum. None of these ne)
102. 103. <u>Techi</u> 104.	Select the incorrect state A. Monocot seeds are B. In maize, the seed C. In monocot seed, the D. In orchids, the seed (a) A and B only Which family is known (a) Fabaceae (c) Liliaceae hical Description of FI Find out the correct match. Br	tement among the e generally endospe coat is membrano he single large shid ds are non-endospe (b) C only n as the 'potato' fa owering Plant atching:	follow ermic. us and eld sha ermic. mily?	ing: is g pe c (c) (b) (d)	enerally fused with otyledon is known D only Solanaceae Cruciferae (Brassio	fruit as sc (d) cacea	wall. utellum. None of these ne)
102. 103. <u>Techn</u> 104.	Select the incorrect state A. Monocot seeds are B. In maize, the seed C. In monocot seed, t D. In orchids, the see (a) A and B only Which family is known (a) Fabaceae (c) Liliaceae hical Description of FI Find out the correct mathematical B. K C. C.	tement among the e generally endospe coat is membrano he single large shid ds are non-endospe (b) C only n as the 'potato' fa owering Plant atching:	follow ermic. us and eld sha ermic. mily? 1. Bra 2. Cal	ing: is g pe c (c) (b) (d) actea lyx	enerally fused with otyledon is known D only Solanaceae Cruciferae (Brassio tte	fruit as sc (d) cacea	wall. utellum. None of these ne)
102. 103. <u>Techn</u> 104.	Select the incorrect state A. Monocot seeds are B. In maize, the seed C. In monocot seed, the D. In orchids, the seed (a) A and B only Which family is known (a) Fabaceae (c) Liliaceae hical Description of FI Find out the correct mate A. Br B. K C. C D. A	tement among the e generally endospe coat is membrano he single large shid ds are non-endospe (b) C only n as the 'potato' fa owering Plant atching:	follow ermic. us and eld sha ermic. mily? 1. Bra 2. Cal 3. Con 4. Gvi	ing: is ge pe c (c) (b) (d) uctea lyx rolla	enerally fused with otyledon is known D only Solanaceae Cruciferae (Brassie ate	fruit as sc (d) cacea	wall. utellum. None of these ne)
102. 103. <u>Techn</u> 104.	Select the incorrect state A. Monocot seeds are B. In maize, the seed C. In monocot seed, the D. In orchids, the seed (a) A and B only Which family is known (a) Fabaceae (c) Liliaceae hical Description of FI Find out the correct matching A. Br B. K C. C D. A E. G	tement among the e generally endospe coat is membrano he single large shid ds are non-endospe (b) C only n as the 'potato' fa owering Plant atching: - - -	follow ermic. us and eld sha ermic. mily? 1. Bra 2. Cal 3. Con 4. Gyr 5. Ano	ing: is g pe c (c) (b) (d) notea lyx rolla noed droe	enerally fused with otyledon is known D only Solanaceae Cruciferae (Brassie ate	fruit as sc (d) cacea	wall. utellum. None of these ne)
102. 103. <u>Techi</u> 104.	Select the incorrect state A. Monocot seeds are B. In maize, the seed C. In monocot seed, the D. In orchids, the seed (a) A and B only Which family is known (a) Fabaceae (c) Liliaceae hical Description of FI Find out the correct mathematical B. K C. C D. A E. G F. G	tement among the e generally endospected coat is membranow he single large shid ds are non-endospected (b) C only n as the 'potato' far owering Plant atching:	follow ermic. us and eld sha ermic. mily? 1. Bra 2. Cal 3. Con 4. Gyr 5. And 6. Sup	ing: is g pe c (c) (b) (d) (d) v colla noed droe operio	enerally fused with otyledon is known D only Solanaceae Cruciferae (Brassie tte te cium ccium or ovary	fruit as sc (d) cacea	wall. utellum. None of these ae)
102. 103. <u>Techn</u> 104.	Select the incorrect state A. Monocot seeds are B. In maize, the seed C. In monocot seed, the D. In orchids, the seed (a) A and B only Which family is known (a) Fabaceae (c) Liliaceae hical Description of FI Find out the correct match A. Br B. K C. C D. A E. G F. G G. &	tement among the e generally endospe coat is membrano he single large shid ds are non-endospe (b) C only n as the 'potato' fa owering Plant atching: - - - - -	follow ermic. us and eld sha ermic. mily? 1. Bra 2. Cal 3. Con 4. Gyr 5. And 6. Sup 7. Ma	ing: is g pe c (c) (b) (d) (d) (d) v colla noed droe berid le	enerally fused with otyledon is known D only Solanaceae Cruciferae (Brassie nte tecium crum or ovary	fruit as sc (d) cacea	wall. utellum. None of these ne)
102. 103. <u>Techi</u> 104.	Select the incorrect state A. Monocot seeds are B. In maize, the seed C. In monocot seed, the D. In orchids, the seed (a) A and B only Which family is known (a) Fabaceae (c) Liliaceae bical Description of FI Find out the correct mathematical A. Br B. K C. C D. A E. G F. G G. δ H. ϕ	tement among the e generally endospected coat is membranow he single large shid ds are non-endospected (b) C only n as the 'potato' far owering Plant atching: 	follow ermic. us and eld sha ermic. mily? 1. Bra 2. Cal 3. Con 4. Gyn 5. And 6. Sup 7. Ma 8. Bis	ing: is g pe c (c) (b) (d) (d) (d) vctea lyx rolla noed droce period	enerally fused with otyledon is known D only Solanaceae Cruciferae (Brassie ate cium cium or ovary	fruit as sc (d) cacea	wall. utellum. None of these ne)

- J. % − 10. Zygomorphic K. ♀ − 11. Female (a) 1–B, 2–C, 3–E, 4–K, 5–A, 6–J, 7–I, 8–F, 9–H, 10–D, 11–G (b) 1–C, 2–A, 3–B, 4–E, 5–D, 6–G, 7–I, 8–H, 9–F, 10–J, 11–K (c) 1–K, 2–J, 3–I, 4–H, 5–G, 6–F, 7–D, 8–E, 9–C, 10–B, 11–A (d) 1–A, 2–B, 3–C, 4–E, 5–D, 6–F, 7–G, 8–H, 9–I, 10–J, 11–K
- **105.** The stem of fabaceae are
 - (a) Erect or climber.
 - (b) Herbaceous rarely woody, aerial, erect, cylindrical, branched solid.
 - (c) Herbaceous with underground bulb/corms/rhizomes
 - (d) All of these

106. Find out from the following the total number of plants with stipulate leaves. Gram, Arhar, Moong, Sesbania, Lupin, Muliathi, Soyabean, Tomato, Brinjal, Belladona, Petunia, Tobacco, Tulip, Aloe, Colchicine, Asparagus, Chilli, Ground nuts, Indigofera, Sunhemp

(a) 7 (b) 10 (c) 15 (d) 20

107. Select the incorrect pair:

- (a) Indigofera Sepals five (Gamosepalous), corolla (Vexillary aestivation)
- (b) Brinjal Sepals five united (persistent, valvate aestivation) Petals five united (valvate aestivation)
- (c) Asparagus Sepals three often united into tube (valvate aestivation)
- (d) Colchicine Perianth present tepals six (valvate aestivation)

108. Select from the following the total number of plant showing tricarpellary gynoceium. Gram, Arhar, Moong, Sesbania, Lupin, Muliathi, Soyabean, Tomato, Brinjal, Belladona, Petunia, Tobacco, Tulip, Aloe, Colchicine, Asparagus, Chilli, Ground nuts, Indigofera, Sunhemp

(a) 7 (b) 10 (c) 4 (d) 6

109. Select from the flowing the total number of plant having epipetalous stamens. Gram, Arhar, Moong, Sesbania, Lupin, Muliathi, Soyabean, Tomato, Brinjal, Belladona, Petunia, Tobacco, Tulip, Aloe, Colchicine, Asparagus, Chilli, Ground nuts, Indigofera, Sunhemp
(a) 7
(b) 6
(c) 8
(d) 10

- (a) 7 (b) 0 (c) 8 (d) 10
- **110.** The fruit of Liliaceae is mainly
(a) Drupe(b) Ovary(c) Legume(d) Capsule
- 111. Which is correct for the gynoecium of Liliaceae?
 - (a) Tricarpellary, syncarpous, superior ovary, trilocular with many ovule, axile placenation.
 - (b) Bicarpellary, syncarpous, superior ovary, bilocular, swollen placenta with many ovule.
 - (c) Superior ovary, monocarpellary, unilocular with many ovules.
 - (d) Tricarpellary, inferior ovary, syncarpous, trilocular with many ovules, axile placentation.

112. Select from the following the total number of plant showing axile placentation. *Dianthus, primrose, china rose, tomato, lemon, tulip, aloe, asparagus, cholchicine, trifolium, lupin, arhar*(a) 6

(a) 6 (b) 7 (c) 8 (d) 9

113.	Select the incorrect mathematical(a) Ornamental(b) Medicine(c) Fodder(d) Edible oil	ttching: Tulip, gloriosa, Muliathi, bellad Sesbania, trifoli Soyabean, grou	lupin, lonna, um ndnut	sweet pea, petunia aloe , colchicine		
114.	Select from the followi Gram, Arhar, Moong, Petunia, Tobacco, Tul Sunhemp (a) 10	ing the total number of Sesbania, Lupin, Mu lip, Aloe, Colchicine, (b) 15	plant <i>liathi</i> Aspa (c)	having non-endospo , Soyabean, Tomato ragus, Chilli, Gro 20	ermi o, Br und (d)	c seed. rinjal, Belladona, nuts, Indigofera, 6
115.	Diadelphous condition (a) Soyabean	is seen in all except (b) Lupin	(c)	Brassica rapa	(d)	China rose
116.	Inflorescence in makoi (a) Racemose	is (b) Cymose	(c)	Catkin	(d)	None of these
117.	Zygomorphic flower is (a) Aloe	found in (b) Potato	(c)	Sesbania	(d)	Ashwagandha
118.	Botanical name of onic (a) Allium sativum (c) Allium cepa	on is	(b) (d)	Solanum melogena Brassica rapa	ı	
119.	Which of the following(a) Gamosepalous (C)(b) Gamosepalous (C)(c) Gamosepalous (C)(d) Polyseplous (C), ga	g is correct about chilli , gamopetalous (K), ep , stamen five, superior , polypetalous (K), dia amopetalous (K), epipe	? oipetal ovary delph etalou	lous stamen, superio ous (A), superior ov s stamen, superior o	or ova ary. vary	ary.
120.	'Lily' family stands for (a) Solanaceae	(b) Liliaceae	(c)	Fabaceae	(d)	Brassicaeae
121.	Select the correct mate (a) Vegetable – Colchi (c) Ornamental – Aspa	hing: icine aragus	(b) (d)	Medicine – Tulip Medicine – Bellad	onna	, ashwagandha
122.	$ \begin{array}{l} \text{The floral formula of E} \\ \text{(a)} \oplus \not \circ \ K_{2-2} C_4 A_{2+4} \underline{G}_{(2)} \\ \text{(c)} \oplus \not \circ \ K_{2+(2)} C_4 A_{2-4} \underline{G}_{(2)} \\ \end{array} $	Brassicaceae is	(b) (d)	$ \begin{array}{l} \oplus \hspace{0.1cm} \stackrel{\diamond}{ _{\circ}} \hspace{0.1cm} K_{2+2} C_{4} A_{2+4} \underline{G}_{(2)} \\ \\ \oplus \hspace{0.1cm} \stackrel{\diamond}{ _{\circ}} \hspace{0.1cm} K_{2+2} C_{(4)} A_{2+4} \underline{G}_{2} \end{array} $		
123.	Select the dye from the (a) Sesbania	e following: (b) Sunhemp	(c)	Lupin	(d)	Indigofera
124.	Monocarpellary condit (a) Groundnut	tion is found in (b) Petunia	(c)	Lily	(d)	Allium cepa
125.	The floral formula of L (a) $\oplus \notin P_{3+3}A_{3+3}\underline{G}_{(3)}$	liliaceae is	(b)	$\oplus \notin P_{3-3}A_{3+3}\underline{G}_{(3)}$		
	(c) $P_{3+3}A_{3+3}\underline{G}_{(3)}\oplus$		(d)	$\oplus \notin P_{3+3}A_{3+3}G_{(3)}$		



- (a) Solanum tuberosum
- (c) Solanum lycopersicum

- (b) Solanum melongena
- (d) Solanum nigrum





- (a) A-Region of maturation, B-Root cap, C-Region of meristematic activity, D-Root hair, E-Region of elongation
- (b) A-Root hair, B-Region of maturation, C-Region of elongation, D-Root cap, E-Region of meristematic activity
- (c) A-Root cap, B-Region of maturation, C-Region of elongation, D-Root hair, E-Region of meristemetic activity
- (d) A-Region of meristematic activity, B-Region of elongation, C-Region of maturation, D-Root hair, E-Root cap

Diagram Based Questions

133. Identify the parts of A to E in the below figure?



- (a) A-Leaf base, B-Petiole, C-Stipule, D-Lamina, E-Axillary bud
- (b) A-Stipule, B-Axillary bud, C-Leaf base, D-Petiole, E-Lamina
- (c) A-Lamina, B-Stipule, C-Petiole, D-Leaf base, E-Axillary bud
- (d) A-Stipule, B-Leaf base, C-Axillary bud, D-Lamina, E-Petiole
- 134. What indicates A to E in the below figure.



- (a) A-Gynoecium, B-Calyx, C-Corolla, D-Pedicel, E-Androecium
- (b) A-Corolla, B-Calyx, C-Gynoecium, D-Androecium, E-Pedicel
- (c) A-Androecium, B-Gynoecium, C-Corolla, D-Calyx, E-Pedicel
- (d) A-Calyx, B-Gynoecium, C-Pedicel, D-Androecium, E-Corolla
- 135. Identify the A to C in dicotyledonous seed.



- (a) A-Hilum, B-Micropyle, C-Seed coat(c) A-Micropyle, B-Seed coat, C-Hilum
- (b) A-Seed coat, B-Hilum, C-Micropyle
- (d) A-Micropyle, B-Hilum, C-Seed coat
- 136. Identify the A to F in this figure.



- (a) A-Stem, B-Secondary root, C-Bud, D-Primary root, E-Leaf, F-Fruit
- (b) A-Fruit, B-Stem, C-Leaf, D-Bud, E-Primary root, F-Secondary root
- (c) A-Bud, B-leaf, C-Primary root, D-Fruits, E-Secondary root, F-Stem
- (d) A-Fruit, B-Leaf, C-Stem, D-Bud, E-Secondary root, F-Primary root
- 137. Identify the A, B and C in this figure.



- (a) A-Plumule, B-Cotyledon, C-Radicle
- (b) A-Radicle, B-Cotyledon, C-Plumule
- (c) A-Cotyledon, B-Plumule, C-Radicle
- (d) A-Radicle, B-Plumule, C-Cotyledon
- 138. Identify the A to D in this figure.



- (a) A-Petals, B-Carpel, C-Basal, D-Androecium
- (b) A-Androecium, B-Basal, C-Carpel, D-Petals
- (c) A-Basal, B-Androecium, C-Petals, D-Carpel
- (d) A-Carpel, B-Basal, C-Androecium, D-Petals

ASSERTION AND REASON QUESTIONS

Read the **assertion** and **reason** carefully to mark the correct option out of the options given below:

- (a) If both the assertion and the reason are true and the reason is a correct explanation of the assertion.
- (b) If both the assertion and reason are true but the reason is not a correct explanation of the assertion .
- (c) If the assertion is true but the reason is false.
- (d) If both the assertion and reason are false.
- Assertion: Old root hairs are replaced by new ones.
 Reason: Outer cells of root gives rise to root hairs.
- **140.** Assertion: Adventitious roots develop from any part of plant.**Reason:** In such plants, the tap root is not developed.

- 141. Assertion: Generally, the dicotyledonous plants have tap roots while monocotyledonous plants having fibrous roots.Reason: The roots in some plants get modified for storage of food, mechanical support and respiration.
- 142. Assertion: Assimilatory roots can photosynthesize. Reason: Asimilatory roots possess chlorophyll.
- **143. Assertion:** Epiphytes are called space parasites. **Reason:** Epiphytic roots possess velamen tissue.
- 144. Assertion: The flower is modified shoot meant for sexual reproduction.Reason: Flowers are arranged in different types of inflorescence.
- **145.** Assertion: The plumule enclosed in sheath are called coleoptile. Reason: The radicle enclosed in sheath are called coleorhiza.
- 146. Assertion: In plants such as bean,gram and pea seeds are called non-endospermous.Reason: The endosperm inis not present in mature seeds of above plants.
- 147. Assertion: Sucker is an underground stem.Reason: Sucker stem never comes above the ground.
- 148. Assertion: In mango and coconut, the fruit is known as drupe.Reason: The fruit develope in above plant are monocarpellary superior ovary and are one seeded.
- **149.** Assertion: Actinomorphic flowers show radial symmetry. Reason: Zygomorphic flowers have bilateral symmetry.
- 150. Assertion: Maize is an albuminous seed.Reason: Endosperm is completely absorbed by its growing embryo.
- **151. Assertion:** Pneumatophores are respiratory roots. **Reason:** Pneumatophores help to get oxygen for respiration
- **152.** Assertion: Petals are usually bright coloured **Reason:** Petals attract insect for pollination.
- 153. Assertion: Thorns are found in plants such as citrus and bougainvillea. Reason: Thorns protect plant from grazing animals
- 154. Assertion: Phylloclade (flattened stem of plant like opuntia) helps the plant to grow in dry habitats.
 Reason: Very low transpiration occurs from stems
 - **Reason:** Very low transpiration occurs from stems.
- 155. Assertion: Parallel venation is the characteristics of most of monocots.Reason: In parallel venation veins run parallel to each other with in a leaf lamina.
- **156.** Assertion: Phyllode in *Australian acacia* is a flattened petiole not stem. **Reason:** Phyllode doesn't contain nodes and internodes.
- 157. Assertion: Leaves are modified into spines in Cacti.Reason: It protect plant from grazing animals and excessive transpiration
- 158. Assertion: The ovary is binocular in family *Brassicaceae* Reason: True septum called replum develops between two parietal placentas in member of family Brassicaceae.

- 159. Assertion: Banana is seedless fruit.Reason: Banana is developed by parthenocarpy.
- **160.** Assertion: Flower is zygomorphic in family *Fabaceae* **Reason:** Corolla shows vexillary aestivation.
- 161. Assertion: Maize has stilt roots.Reason: They give additional support and allow better absorption of water and mineral salts
- **162.** Assertion: Stem bears nodes and internodes **Reason:** Stem is always aerial.
- 163. Assertion: Calyx and corolla are accessory organs of the flower. Reason: They do not directly involve in sexual reproduction.
- 164. Assertion: In hypogynous flower ovary is always inferior.Reason: Parts of flower in hypogynous condition arises above ovary.
- **165.** Assertion: Vexillary aestivation is known as *papilionaceous* aestivation **Reason:** It is found in family *papilionaceae*
- **166.** Assertion: Formation of phyllode is a mechanism to reduce transpiration. Reason: It is vertically placed and has fewer stomata
- 167. Assertion: In China rose stamens said to be monadelphous.Reason: In China rose fusion of filament of stamens forms a single group.
- **168.** Assertion: In tetradynamous condition stamens are of unequal length. Reason: In didynamous condition all stamens are of equal length.
- 169. Assertion: Custard apple is example of aggregate fruitReason: It is developed from flower having polycarpellary apocarpous gynoecium.

PREVIOUS YEAR QUESTIONS

- 1. Which one of the following is a xerophytic plant in which the stem is modified into the flat green and succulent structure?
 - (a) Opuntia

(b) Casuarina

(c) Hydrilla

[AIPMT MAINS 2010] (d) Acacia

2. Aestivation of petals in the flower of cotton is correctly shown in

[AIPMT MAINS 2010]





- 3. The correct floral formula of soyabean is
 - $\begin{array}{ll} \text{[AIPMT MAINS 2010]} \\ \text{(a)} & \oplus \notin K_{(5)} C_{1+(2)+2} A_{(9)+1} \underline{G}_1 \\ \text{(c)} & \oplus \notin K_{(5)} C_{1+2+(2)} A_{(9)+1} \underline{G}_1 \\ \text{(d)} & \oplus \notin K_{(5)} C_{1+2+(2)} A_{1+(9)} \underline{G}_1 \end{array}$
- 4. Consider the following four statements (A), (B), (C) and (D) and select the right option for two correct statements.

Statements:

- (A) In vexillary aestivation, the large posterior petal is called standard, two lateral ones are wings and two small anterior petals are termed keel.
- (B) The floral formula for liliaceae is $\oplus \notin P_{3+3}A_{3+3}G_3$
- (C) In pea flower, the stamens are monadelphous.
- (D) The floral formula for Solanaceae is $\oplus \notin K_{(3)}C_{(3)}A_{(4)}\underline{G}_{(2)}$

The correct statements are

() (1) $1(0)$	(1) (A) 1 (D)	$()$ (\mathbf{D}) 1 (\mathbf{C})	
(a) (A) and (C)	(b) (A) and (B)	(c) (B) and (C)	(d) (C) and (D)

- 5. In unilocular ovary with a single ovule, the placentation is
 - (a) Marginal(b) Basal(c) Free central[AIPMT PRE 2010](d) Axile
- **6.** Keel is the characteristic of the flowers of
- (a) Gulmohar (b) Cassia (c) Calotropis
- 7. Ovary is half-inferior in the flowers of
 - (a) Guava(b) Plum(c) Brinjal[AIPMT PRE 2010](d) Cucumber
- **8.** The technical term used for the androecium in a flower of China rose (Hibiscus rosa sinensis) is
 - (a) Monadelphous(b) Diadelphous(c) Polyandrous(d) Polyadelphous

9. Coiling of garden pea tendrils around any support is an example of

- (a) Thigmotaxis(b) Thigmonasty(c) Thigmotropism(d) Thermotaxis
- **10.** Which one of the following figures represents the placentation in dianthus?

[AIPMT MAINS 2011]

[AIPMT MAINS 2010]

[AIPMT PRE 2010]

[AIPMT PRE 2010]

[AIPMT PRE 2010]

(d) Bean







[AIPMT PRE 2012]

11.	Whorled, simple leaves with reticula	enation are present in	17
	(a) Calotropis	(h) Neem	IJ
	(c) China rose	(d) Alstonia	
12	Which one of the following stateme	s correct?	
14.	which one of the following statement	[AIPMT PRE 201	11
	(a) Seeds of orchids have oil-rich en(b) Placentation in primrose is basa(c) Flower of tulip is a modified sho(d) In tomato, the fruit is a capsule.	perm.	-1
13.	The 'Eyes' of the potato tuber are:		
		[AIPMT PRE 201	1]
	(a) Flower buds	(b) Shoot buds	
	(c) Axillary buds	(d) Root buds	
14.	Flowers are zygomorphic in		
	(a) Culmohar	[AIPMT PRE 201 (b) Tomata	1]
	(a) Guinionai (c) Datura	(d) Mustard	
1.7		(4) 1120414	
15.	A drupe is developed in	LAIPMT PRE 201	11
	(a) Wheat	(b) Pea	1]
	(c) Tomato	(d) Mango	
16.	Which one of the following is wrong	natched?	
10.	which one of the following is wrong	[AIPMT PRE 201	1]
	(a) Puccinia - Smu	-	-
	(b) Root - Exam	rotoxylem	
	(c) Cassia - Imbi	e aestivation	
	(d) Root pressure - Guit	1	
17.	The ovary is half inferior in flowers		
	(a) Cucumber	(h) Cotton	IJ
	(c) Guava	(d) Peach	
10	The correct floral formula of shilli i		
10.			
	(a) $\oplus \notin K_{(5)}C_{(5)}A_5G_{(2)}$	(b) $\oplus \notin \mathbf{K}_{(5)} \mathbf{C}_{(5)} \mathbf{A}_{(5)} \mathbf{G}_2$	
	(c) $\oplus \notin K_s C_s A_{(s)} G_2$	(d) $\oplus \notin K_{(s)}C_sA_sG_{(s)}$	
		[AIPMT PRE 201	1]
19.	How many plants in the list give	elow have composite fruits that develop from a	an
	inflorescence?	1	
	Walnut, poppy, radish, fig, pineapple	ple, tomato, mulberry.	

(a) Four (b) Five

	Э
(c) Two (d) Thr	ee

20.	How Mus Toba	v many plants in the tard, Gram, Tulip, acco, Lupin	e list given below have Asparagus, Arhar, Sun	marg <i>hem</i>	inal placentation	? cine, Onion, Moong, Pea,
	(a)	Five	(b) Six	(c)	Three	[AIPMT MAINS 2012] (d) Four
21.	Whi (a) (b) (c) (d)	ch one of the follow Tomato: Twisted ac Onion: Bulb, Imbri Maize: C_3 pathway Pea: C_3 pathway, E	wing organisms is corr estivation, Axile placen icate aestivation, Axile , Closed vascular bund ndospermic seed, Vaxi	ectly tation place les, S llary a	matched with its n, Berry entation cutellum aestivation	three characteristics? [AIPMT MAINS 2012]
22.	Cym (a) (c)	iose inflorescence i Solanum Trifolium	is present in	(b) (d)	Sesbania Brassica	[AIPMT PRE 2012]
23.	Phyl (a) (c)	llode is present in Asparagus Australian Acacia		(b) (d)	Euphorbia Opuntia	[AIPMT PRE 2012]
24.	Plac (a) (c)	entation in tomato Parietal Marginal	and lemon is	(b) (d)	Free central Axile	[AIPMT PRE 2012]
25.	(a) (c)	illary aestivation is Fabaceae Solanaceae	a characteristic of the	famil (b) (d)	y Asteraceae Brassicaceae	[AIPMT PRE 2012]
26.	Amo guav man	ong bitter gourd, m /a, bean, chilli, plu y plants have hypo	ustard, brinjal, pumpki m, petunia, tomato, ro gynous flower?	n, chi se, w	na rose, lupin, c ithania, potato, c	ucumber, sunhemp, gram, onion, aloe and tulip, how
27.	(a) (c) In C	Six Fifteen hina rose the flowe	rs are	(b) (d)	Ten Eighteen	
	(a) (b) (c) (d)	Actinomorphic, hy Actinomorphic, ep Zygomorphic, hyp Zygomorphic, egig	pogynous with twisted igynous with valvate a ogynous with imbricate gynous with twisted aes	aesti estiva e aest stivati	vation. tion. ivation. on.	[AIPMT 2013]
28.	Seec (a) (c)	l coat is not thin, b Maize Groundnut	ut membranous in	(b) (d)	Coconut Gram	[AIPMT 2013]

29.	Placenta and pericarp are both edible portions i	n		
	/			[AIPMT 2014]
	(a) Apple	(b)	Banana	
	(c) Iomato	(d)	Potato	
30.	When the margins of sepals or petals overlap or condition is termed as	ne ar	nother without any particu	lar direction, the
				[AIPMT 2014]
	(a) Vexillary(c) Twisted	(b) (d)	Imbricate Valvate	
31	Which one of the following statements is corre-	et?		
51.	which one of the following statements is correct			[AIPMT 2014]
	(a) The seed in grasses is not endospermic.(b) Mango is a parthenocarpic fruit.(c) A proteinaceous aleurone layer is present in(d) A sterile pistil is called a staminode.	n ma	iize grain.	[]
32.	An example of edible underground stem is			
020	The example of earlie analysis and stem is			[AIPMT 2014]
	(a) Carrot	(b)	Groundnut	[]
	(c) Sweet potato	(d)	Potato	
33	An aggregate fruit is one which develops from			
55.	The aggregate mult is one which develops nom			[AIPMT 2014]
	 (a) Multicarpellary syncarpous gynoecium (b) Multicarpellary apocarpous gynoecium (c) Complete inflorescence (d) Multicarpellary superior ovary 			
34.	$\oplus \notin K_{(5)} \stackrel{\frown}{C_{(5)} A_{(5)}} G_{(2)}$ is the floral formula of			[AIPMT 2015]
	(a) Alium	(h)	Serbia	
	(c) Petunia	(d)	Brassica	
		()		
35.	(a) Tulin	(b)	Indianforo	[AIPM1 2015]
	(a) $\operatorname{full}p$	(0)	Tomato	
		(u)	Tomato	
36.	Perigynous flowers are found in		C 1	[AIPMT 2015]
	(a) Guava	(b)	Cucumber	
	(c) China rose	(a)	Kose	
37.	A hilum is a scar on the(a) Seed, where funicle was attached.(c) Fruit, where style was present.	(b) (d)	Fruit, where it was attach Seed, where micropyle w	[AIPMT 2015] ned to pedicel. ras present.
38.	Among china rose, mustard brinial potato	uav	a, cucumber, onion and t	ulip, how many
201	plants have superior ovary?	,	., eaconicer, onion and t	anp, now mully
	A A		[R]	E-AIPMT 2015]
	(a) Six	(b)	Three	-

(a)	Six	(b)	Three
(c)	Four	(d)	Four

39.	The wheat grain has an embryo with one large,	, shie	eld-shaped cotyledon k	known as
		()	0 (11	[RE-AIPMT 2015]
	(a) Coleorrhiza	(b)	Scutellum	
	(c) Coleoptile	(a)	Epidiasi	
40.	Axile placentation is present in			
	(a) Laman	(h)	Dee	[RE-AIPMT 2015]
	(a) Lemone	(0)	Dianthus	
		(u)	Dialitilus	
41.	Flowers are unisexual in			
	(a) Cucumber	(h)	China roso	[RE-AIPM1 2015]
	(a) Cucumber (c) Onion	(d)	Pea	
			1	
42.	The standard petal of a papilionaceous corolla	1s al	so called:	[NEET - I, 2016]
	(a) Carma (c) Vexillum	(0)	Corona	
		. a	Corona	
43.	Tricarpellary, syncarpous gynoecium is found	in flo	owers of:	[NEET - I, 2016]
	(a) Enhaceae	(0)	Poncene	
	(c) Tabaccac	(u)	Toaccac	
44.	Which of the following is not a stem modificat	ion?		[NEET - I, 2016]
	(a) Pitcher of Nepenthes	(b)	Thorns of citrus	of Omuntia
	(c) Tendrins of cucumber	(u)	Flattened structures (or Opunna
45.	Cotyledon of maize grain is called:		~ 1 11	[NEET - I, 2016]
	(a) Plumule	(b)	Coleorhiza	
	(c) Coleophie	(a)	Scutenum	
46.	Stems modified into flat green organs performi	ng t	he functions of leaves	are known as:
	(a) Cladadag	(h)	Dhulladaa	[NEET - I, 2016]
	(a) Cladodes (c) Phylloclade's	(0) (d)	Scales	
45		(4)		
47.	The term 'polyadelphous' is related to	(h)	Caralla	[NEET - II, 2016]
	(a) Androectum (c) Calvx	(0)	Gynoecium	
40		(u) 0		
48.	How many plants among Indigotera, Sesbani	a, Sa	alvia, Allium, Aloe, N	Austard, Groundnut,
	(a) Four	(h)	Five	s: [NEE1 - II, 2010]
	(c) Six	(d)	Three	
40	Radial symmetry is founding the flowers of			[NEET _ II 2016]
47.	(a) Trifolium	(h)	Pisum	[NEE1 - 11, 2010]
	(c) Cassia	(d)	Brassica	
50	Eras control placentation is found in	.)		INFET IL 20161
30.	(a) Argemone	(h)	Brassica	[NEE1 - 11, 2010]
	(c) Citrus	(d)	Dianthus	
		~ /		

NCERT EXEMPLAR QUESTIONS

- 1. Rearrange the following zones as seen in the root in vertical section and choose the correct option.
 - (a) Root hair zone
 - (c) Rootcap zone
 - (e) Zone of elongation
 - (a) c, b, e, a, d
 - (c) d, e, a, c, b

- (b) Zone of meristem
- (d) Zone of maturation
- (b) a, b, c, d, e
- (d) e, d, c, b, a
- 2. In an inflorescence where flowers are borne laterally in an acropetal succession, the position of the youngest floral bud shall be
 - (a) Proximal
 - (c) Intercalary (d) Anywhere
- 3. The mature seeds of plants such as gram and pea, possess no endosperm, because
 - (a) These plants are not angiosperms.
 - (b) There is no double fertilization in them.
 - (c) Endosperm is not formed in them.
 - (d) Endosperm gets used up by the developing embryo during seed development.
- 4. Roots developed from parts of the plant other than radicle are called
 - (a) Tap roots (b) Fibrous roots
 - (c) Adventitious roots (d) Nodular roots
- 5. Venation is a term used to describe the pattern of arrangement of
 - (a) Floral organs (b) Flowers in inflorescence
 - (d) All of them (c) Veins and veinlets in a lamina
- **6.** Endosperm, a product of double fertilization in angiosperms is absent in the seeds of
 - (a) Gram (b) Orchids
 - (c) Maize (d) Castor
- 7. Many pulses of daily use belong to one of the families below (tick the correct answer)
 - (a) Solanaceae (b) Fabaceae
 - (c) Liliaceae (d) Poaceae

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

- (a) Testa (b) Hilum
- (c) Micropyle (d) Chalaza
- 9. Which of the following plants is used to extract the blue dye?
 - (a) Trifolium (b) Indigofera
 - (c) Lupin (d) Cassia
- 10. Match the followings and choose the correct option.

Group A

Group B

- (a) Aleurone layer (i) Without fertilization
- (b) Parthenocarpic fruit (ii) Nutrition
- (iii) Double fertilization (c) Ovule
- (d) Endosperm (iv) Seed

- (b) Distal

Options:

- (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)

				Answ	er Keys				
				Practice	Question	ıs			
					~				
1. (d)	2. (a)	3. (b)	4. (d)	5. (d)	6. (d)	7. (d)	8. (c)	9. (a)	10. (c)
11. (c)	12. (d)	13. (c)	14. (c)	15. (b)	16. (d)	17. (c)	18. (d)	19. (c)	20. (d)
21. (d)	22. (d)	23. (b)	24. (d)	25. (d)	26. (d)	27. (d)	28. (d)	29. (b)	30. (d)
31. (d)	32. (d)	33. (c)	34. (c)	35. (d)	36. (b)	37. (d)	38. (a)	39. (d)	40. (d)
41. (c)	42. (d)	43. (d)	44. (a)	45. (d)	46. (c)	47. (d)	48. (c)	49. (c)	50. (d)
51. (c)	52. (a)	53. (b)	54. (c)	55. (d)	56. (d)	57. (b)	58. (c)	59. (c)	60. (b)
61. (d)	62. (d)	63. (d)	64. (c)	65. (d)	66. (d)	67. (c)	68. (d)	69. (c)	70. (d)
71. (d)	72. (d)	73. (d)	74. (b)	75. (d)	76. (b)	77. (d)	78. (d)	79. (c)	80. (a)
81. (d)	82. (a)	83. (a)	84. (a)	85. (b)	86. (d)	87. (d)	88. (d)	89. (b)	90. (b)
91. (c)	92. (a)	93. (b)	94. (c)	95. (d)	96. (d)	97. (d)	98. (a)	99. (d)	100. (a)
101. (c)	102. (d)	103. (b)	104. (d)	105. (a)	106. (a)	107. (c)	108. (c)	109. (b)	110. (d)
111. (a)	112. (b)	113. (d)	114. (a)	115. (d)	116. (b)	117. (c)	118. (c)	119. (a)	120. (b)
121. (d)	122. (b)	123. (d)	124. (a)	125. (a)	126. (d)	127. (b)	128. (a)	129. (a)	130. (b)
131. (d)	132. (b)	133. (b)	134. (c)	135. (a)	136. (b)	137. (c)	138. (d)		

Assertion and Reason Questions

139. (b) 140. (c) 141. (c) 142. (a) 143. (b) 144. (b) 145. (b) 146. (a) 147. (c) 148. (b) 149. (b) 150. (c) 151. (a) 152. (a) 153. (a) 154. (a) 155. (b) 156. (a) 157. (a) 158. (c) 159. (a) 160. (a) 161. (a) 162. (c) 163. (a) 164. (d) 165. (a) 166. (a) 167. (a) 168. (c) 169. (a)

Previous Year Questions

1. (a)	2. (d)	3. (b)	4. (b)	5. (b)	6. (d)	7. (b)	8. (a)	9. (c)	10. (b)
11. (d)	12. (c)	13. (c)	14. (a)	15. (d)	16. (a)	17. (d)	18. (a)	19. (d)	20. (b)
21. (b)	22. (a)	23. (c)	24. (d)	25. (a)	26. (c)	27. (a)	28. (a)	29. (c)	30. (b)
31. (c)	32. (d)	33. (b)	34. (c)	35. (b)	36. (d)	37. (a)	38. (a)	39. (b)	40. (a)
41. (a)	42. (c)	43. (a)	44. (a)	45. (d)	46. (c)	47. (a)	48. (a)	49. (d)	50. (d)

NCERT Exemplar Questions

1. (a) 2. (b) 3. (d) 4. (c) 5. (c) 6. (b) 7. (b) 8. (b) 9. (b)	10. (b)
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