4 Morphology of flowering plants

Unit-2

1. Curly top virus spreads a plant via- **(Pg. 64, E)**
   A) Xylem B) Phloem
   C) Vascular bundle D) None of these
2. The book 'Plant Anatomy' was published by Esau in – **(Pg. 64, E)**
   A) Same year as she did her doctorate
   B) 1960
   C) 1954
   D) 1957
3. Which of referred as 'Webster's of plant biology' – an encyclopedia **(Pg. 64, E)**
   A) Plant anatomy
   B) Anatomy of angiospermic plant
   C) Anatomy of seed plants
   D) A & B both
4. Esau was _____ woman to receive 'National Academy of science ' **(Pg. 64, E)**
   A) 7th B) 6th
   C) 5th D) 1th
5. Statement – I: Esau got National Academy of Science in 1957
   Statement – II: In 1989, Esau received National Medal of Science in 1989. **(Pg. 64, E)**
   A) Statement – I & statement – II are both correct
   B) Statement – I & statement – II are both incorrect
   C) Statement – I is correct and statement – II is incorrect
   D) Statement – I is incorrect and statement – I is correct
6. Morphology is study of **(Pg. 65, E)**
   A) External structure of an organism
   B) Internal structure of an organism
   C) Systematics
   D) A & B booth

Paragraph – 5.1

The Root

7. Radical form- **(Pg. 65, E)**
   A) Root system of plant
   B) Floral part of plant
   C) Shoot system of plant
   D) A & B both
8. The lateral roots arise from primary root is- **(Pg. 65, E)**
   A) Primary root B) Secondary root
   C) Tertiary root D) A & B both
9. Choose the given statement which is suitable for following figure **(Pg. 66, E)**

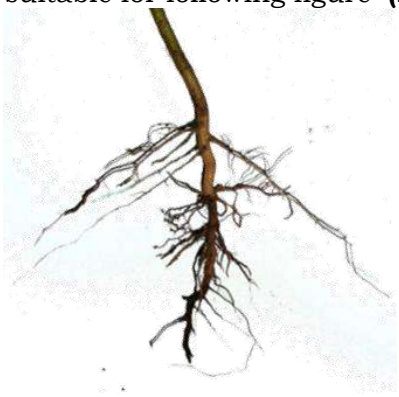


Figure: Tap root system

   A) It comprises of primary & secondary root
   B) Such roots are observed in mustard
   C) These roots are replace by large number root
   D) A & B both
10. From given set of example choose, how many of following are example of fibrous root and adventitious root respectively.
    Sweet potato, carrot, turnip, wheat, grass, *Monstera,* banyan tree **(Pg. 66, E)**
    A) 1, 4 B) 1, 3
    C) 2, 3 D) 3, 2
11. Adventitious roots arise from- **(Pg. 66, E)**
    A) Radicle
    B) Base of stem in tuft as in wheat
    C) Part of plant other than radicle as in mustard
    D) Secondary root
12. Root is characterized by **(Pg. 66, E)**
    A) Presence of node & internode
    B) Mainly (-ve) phototropism
    C) Mainly (-ve) geotropism
    D) Mainly (-ve) hydrotropism
13. Which of the following is not the main function of root system is/are **(Pg. 66, E)**
    A) Absorption of sap from soil
    B) Providing proper anchorage to plant parts.
    C) Synthesis of plant growth regulators
    D) None of these
14. Identify given diagram **(Pg. 66, M)**

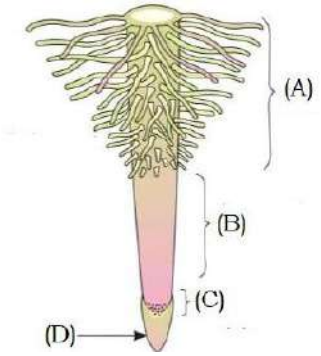
	A)	B)	C)
A)	Tap root	Fibrous root	Adventitious root
B)	Tap root	Adventitious root	Fibrous root
C)	Adventitious root	Fibrous root	Tap root
D)	Fibrous root	Tap root	Adventitious root

Paragraph-5.1.1

Regions of the Root

15. In aquatic plant the apex of root is covered by **(Pg. 67, E)**
A) Thimble parenchymatous root cap
B) Root pocket
C) Coleorhiza
D) Coleoptile

16. Identify region of root tip **(Pg. 67, M)**



A) A = Region of maturation, B = Region of elongation, C = Region of meristematic activity, D = Root cap
B) A = Region of elongation, B = Region of meristematic activity, C = Root cap, D = Protective covering
C) A = Region of meristem, B = Region of maturation, C = Region of elongation, D = Root cap
D) A = Region of growing cell, B = Region of mature cell, C = Region of dividing cell, (D = Protective covering

17. Root hair arise from – **(Pg. 67, E)**
A) Cortical cell of region of maturation
B) Epidermal cell of region of maturation
C) Cortical cell of region of elongation
D) Epidermal cell of region of elongation

18. Choose mismatch pair **(Pg. 67, H)**
Column – I - Column – II
A) Region of meristematic - Small thin wall dense
B) Region of elongation - Responsible for growth of root in length
C) Region of maturation - Proximal to region of elongation
D) Root hair - Differentiated and mature cell proximal to region of maturation

Paragraph-5.1.2

Modification of Root:

19. Pneumatophores are helpful in- **(Pg. 67, E)**
A) Transpiration
B) Getting oxygen for respiration
C) Absorption of water
D) Assimilation of food

20. Silt roots and pneumatophores are observed in- **(Pg. 67, E)**
A) Maize, *Rhizophora*
B) Maize, *Rhizopus*
C) Sugarcane *Rhizopus*
D) A & B both

21. Mechanical root observed in – **(Pg. 67, E)**
A) Sugarcane B) Maize
C) Banyan tree D) All of these

22. For food storage root get modified in – **(Pg. 67, E)**
A) Potato B) Sweet potato
C) Ginger D) A & B both

23. Match the following – **(Pg. 67, H)**

	Column – I		Column – II
A)	Conical root	(I)	Raddish
B)	Napiform root	(II)	Turnip
C)	Tuberous root	(III)	Sweet potato
D)	Fusiform root	(IV)	carrot

	a	b	c	d
A)	IV	II	III	I
B)	IV	III	II	I
C)	III	IV	I	II
D)	III	IV	I	II

24. Modification of root *Asparagus* is meant for – **(Pg. 67, E)**
A) Storage of food
B) Mechanical support

C) Respiration
D) Climbing support

25. Slit root arise from – **(Pg. 67, E)**
A) Lower nodes of Zea mays
B) Lower internode of sugarcane
C) Lower internode of Zea mays
D) Upper node of sugarcane

26. Pneumatophores are **(Pg. 67, E)**
i) Positive geotropism
ii) Negative geotropism
iii) Grown in marshy area
iv) Found in mangroves
v) Positive phototropism
vi) Negative phototropism
A) i, iii, iv, vi B) ii, iii, iv, v
C) i, iii, v D) ii, iv, vi

Paragraph-5.2

Stem:

27. Stem distinguish from root in – **(Pg. 68, E)**
A) Presence of node & internode
B) Absence of node & internode
C) Presence of hairs for water absorption
D) Absence of bud

28. Stem are develop from – **(Pg. 68, E)**
A) Radicle of germinating seed
B) Plumule of germinating seed
C) Cotyledons of germinating seed
D) Coleoptile

29. The region of stem where leaves are born are _____ **(Pg. 68, E)**
A) Nodes
B) Internode
C) Both node & internode
D) Floral bud

30. Stems are generally – **(Pg. 68, E)**
A) (+ve) geotropism, (-ve) hydrotropism, (+ve) phototropism
B) (-ve) geotropism, (-ve) hydrotropism, (+ve) phototropism
C) (+ve) geotropism, (+ve) hydrotropism, (+ve) phototropism
D) (+ve) geotropism, (-ve) hydrotropism, (-ve) phototropism

Paragraph-5.2.1

Modification of stem:

31. Underground modified stem of potato is known as- **(Pg. 68, E)**
A) Tuber B) Rhizome
C) Corm D) Bulb

32. Stem store food for- **(Pg. 68, E)**
A) Favourable condition growth
B) Unfavourable condition growth
C) Flowering condition
D) A & C both

33. Choose odd on with respect to stem modification – **(Pg. 68, E)**
A) Zaminkand B) Colocasia
C) Bougainvillea D) Turmeric

34. How many of following stem modification does develop from axillary buds **(Pg. 68, M)**
Colocasia, grapevines, cucumber, pumpkin, *Opuntia*, Citrus, Watermelon, *Bougainvillea*
A) 7 B) 6
C) 5 D) 4

35. Ginger and turmeric are example of – **(Pg. 68, E)**
A) Rhizome B) Rhizoid
C) Corm D) Roots

36. Photosynthetic green flattened modified stem xerophyte is in – **(Pg. 68, E)**
A) *Acacia* B) *Euphorbia*
C) *Opuntia* D) *Hydrilla*

37. Stem is modified for protection in – **(Pg. 68, E)**
A) Citrus thorn
B) Bougainvillea spine
C) Opuntia thorn
D) A and C

38. Statement – I: Some plants of arid region modify their stems into fleshy cylindrical structure as in *Euphorbia*
Statement – II: In grapevines, stem tendril are for help plant to climb **(Pg. 68, M)**
A) Statement – I and Statement – II are correct.
B) Statement – I is correct while statement – II is not correct
C) Statement – I is incorrect while statement – II is correct
D) Statement – I and statement – II are incorrect

39. Stem tendril of pumpkin develop from- **(Pg. 68, E)**
A) Accessory bud
B) Axillary bud
C) Extra – axillary bud
D) Floral bud

40. Choose the correct statement about stem modification of mint **(Pg. 69, E)**
A) A slender lateral branch arises from base of main axis and after growing underground for some time arch upward to touch the ground.

B) A slender lateral branch arises from base of main axis and after growing aerially for some time arch downwards to touch the ground.
C) Stem modification is same as in strawberries
D) Stem modification mint is known as sucker

41. Match the following: **(Pg. 69, H)**

	Column – I		**Column – II**
I)	Strawberry	A.	Sucker
II)	Jasmine	B.	Offset
III)	*Pistia*	C.	Runner
IV)	Pineapple	D.	Stolon

A) I – C, II – D, III – B, IV – A
B) I – B, II – C, III – A, IV – D
C) I – C, II – A, III – B, IV – D
D) I – A, II – B, III – C, IV – D

42. Choose odd one with respect to stem modification- **(Pg. 69, E)**
A) Chrysanthemum
B) Banana
C) Pineapple
D) Strawberry

43. In pineapple – **(Pg. 69, E)**
A) The lateral branches originate from basal and underground portion of main stem, grow horizontally beneath the soil and then come out obliquely upward giving rise to leafy shoot.
B) The lateral branch arises time arch downward to touch the ground growing aerially for some time arch downward to touch the ground
C) A lateral branch with short internode and each node bearing a rosette of leaves and a tuft of roots.
D) None of these

44. In *Oxalis* stem is modified for – **(Pg. 69, E)**
A) Storage
B) Support
C) Protection
D) Vegetative propagation

45. Lateral branch with short internode & each node bearing a rosette of leaves and a tuft of root found in – **(Pg. 69, E)**
A) *Pistia* B) *Eichhornia*
C) Grasses D) A & B both

Paragraph-5.3

The leaf

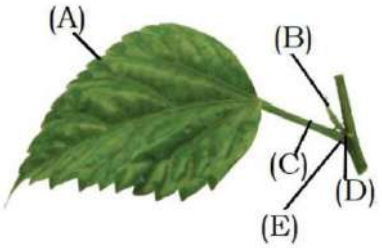
46. Choose the correct response: **(Pg. 69, E)**
A) Leaf develop at the node and bears a bud in its axile
B) Leaves originate from SAM are arranged in acropetal orders.
C) Leaf is lateral gernerally flattened vegetative structure for photosynthesis
D) All of these

47. Stipules are – **(Pg. 70, E)**
A) Two lateral small leaf like structure
B) Four lateral small leaf like structure
C) One lateral small leaf like structure
D) Many lateral small leaf like

48. The leaf base expanded into a sheath crossing the stem partially or wholly in– **(Pg. 70, E)**
A) Monocot
B) Dicot
C) All angiosperms plant
D) Gymnosperms

49. Pulvinus is – **(Pg. 70, E)**
A) Swollen leaf base of legume
B) Swollen petiole of legume and china Rose
C) Swollen lamina
D) Swollen stipule

50. Label – A, B, C, D, E **(Pg. 70, M)**



	A	**B**	**C**	**D**	**E**
A)	Lamina	Stipule	Petiole	Axillary bud	Leaf base
B)	Lamina	Stipule	Petiole	Axillary bud	Leaf base
C)	Lamina	Pulvinus	Pedicel	Axillary bond	Leaf base
D)	Lamina	Stipule	Pedicel	Extra-axillary bond	Leaf base

Paragraph-5.3.1

Venation

51. Arrangement of vein & veinlet in lamina of leaf **(Pg. 70, E)**
A) Venation B) Phyllotaxy
C) Aestivation D) None of these

52. Leaves of dicotyledonous plants generally characterized by - **(Pg. 70, E)**
A) Presence of parallel venation
B) Veins which are parallel to each other within a lamina.
C) Presence of reticulate venation
D) A & B both

53. Identify the leaf venation and type of leaf. **(Pg. 70, E)**

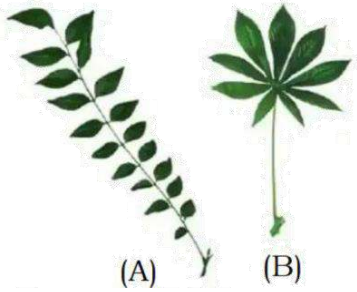
A) Parallel venation; monocot mainly
B) Parallel venation; dicot mainly
C) Reticulate venation; dicot mainly
D) Reticulate venation; monocot mainly

Paragraph-5.3.2 Types of leaves:

54. A leaf is simple **(Pg. 70, E)**
A) When its lamina is entire
B) When its lamina is incised, the incision do not touch the midrib
C) A & B both
D) None of these

55. When the incisions of lamina reach to midrib breaking leaf into a number of leaflet is not- **(Pg. 70, E)**
A) Compound leaf
B) Simple leaf
C) Pinnate leaf
D) Palmate leaf

56. Identify A and B **(Pg. 70, M)**



A) A = pinnately compound leaf; Neem B = palmately compound leaf; Silk cotton
B) A = palmately compound leaf; Silk cotton B = pinnately compound leaf; Neem
C) A = pinnately compound leaf; Silk cotton B = palmately compound leaf; Neem
D) A = palmately compound leaf; Neem B = pinnately compound leaf; Silk cotton

57. Midrib of pinnately compound leaf is – **(Pg. 70, E)**
A) Mid-vein B) Rachis
C) Petiole D) None of these

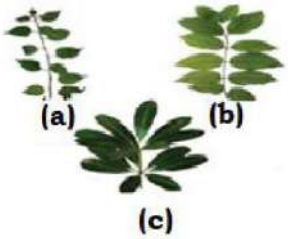
58. Leaflet of pinnately compound leaf arise on- **(Pg. 70, E)**
A) Common point i.e. at tip of petiole
B) Common axis
C) Common point i.e. at tip of rachis
D) A & C both

59. Leaflet of _____ arise on common point i.e. at tip of petiole **(Pg. 71, E)**
A) Pinnately compound leaf
B) Palmately compound leaf
C) Simple leaf
D) All of these

Paragraph-5.3.3 Phyllotaxy

60. Phyllotaxy is pattern of arrangement of ____ on the ____ **(Pg. 71, E)**
A) Leaf, stem B) Phloem, stem
C) Vein, leaf D) None of these

61. Identify types of phyllotaxy shown by given diagram **(Pg. 71, M)**



	A)	B)	C)
A)	Opposite	Alternate	Whorled
B)	Alternate	Opposite	Whorled
C)	Alternate	Whorled	Opposite
D)	None of these		

62. Choose correct statement – **(Pg. 71, E)**
A) In alternate type; a single leaf arises at each node.
B) In opposite type; a pair leaves arises at each node.
C) In whorled type; more than two leaves arises at each node.
D) All of these

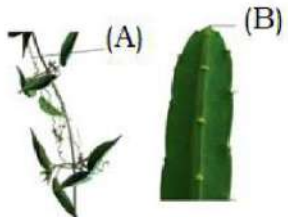
63. Sunflower show- **(Pg. 71, E)**
A) Alternate phyllotaxy
B) Opposite phyllotaxy
C) Whorled phyllotaxy
D) None of these

Paragraph-5.3.4

Modification of leaves:

64. In Australian acacia **(Pg. 71, E)**
A) Lamina modification
B) Petiole modified
C) Stipule modified
D) All of these

65. Select the correct option: **(Pg. 71, E)**



A) Both A & B are modified by leaves
B) A is tendrils for climbing
C) B is spines for defence
D) All of these

66. Pitcher of pitcher plant is modified – **(Pg. 71, E)**
A) Leaf B) Stem
C) Root D) Fruit

Paragraph-5.4

The inflorescence:

67. Flower is modified – **(Pg. 71, E)**
A) Node B) Internode
C) Leaf D) Shoot

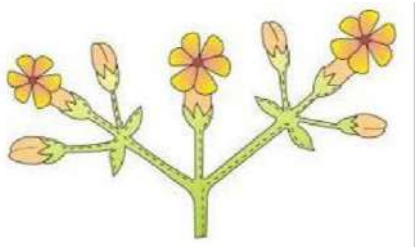
68. Choose the correct statement **(Pg. 71, E)**
A) In flower, SAM changes to floral meristem
B) In flower, internode do not elongate
C) The axis get condensed in flower.
D) All of these

69. The arrangement of flowers on the floral axis is – **(Pg. 71, E)**
A) Phyllotaxy B) Inflorescence
C) Aestivation D) Placentation

70. On the basis whether floral apex gets develop into flower or continues to grow, inflorescence are mainly of- **(Pg. 72, E)**
A) 3 types B) 4 types
C) 2 types D) None of these

71. In racemose- **(Pg. 72, E)**
A) Main axis continues to grow
B) Flower are in basipetal order
C) Main axis terminate into flower
D) B & C both

72. Choose the correct statement about given figure **(Pg. 72, E)**



A) It is of racemose type inflorescence
B) Flowers are in basipetal order
C) Flowers are in acropetal order
D) Example of *Cassia*

73. Given diagram is of – **(Pg. 72, M)**

A) Racemose inflorescence
B) Cymose inflorescence
C) Cymose inflorescence of Cassia
D) B & C both

Paragraph-5.5

The flower:

74. A complete flower consist of – **(Pg. 73, E)**
A) One whorl B) Two whorls
C) Three whorls D) Four whorls

75. Flower stalk is known as – **(Pg. 72, E)**
A) Pedicel B) Thalamus
C) Petiole D) Stipules

76. Thalamus is not – **(Pg. 72, E)**
A) Swollen end of pedicel
B) Different whorl arranged on it
C) Accessory whorl
D) Receptacle for different whorl

77. Choose the correct statement- **(Pg. 72, E)**
A) Calyx, corolla, are accessory organ
B) Androecium, gynoecium are reproductive organ
C) Perianth present in lily
D) All of these

78. Perianth is **(Pg. 72, E)**
A) Indistinct calyx & corolla
B) Fused corolla & androecium
C) Reproductive organ

D) None of these

79. Bisexual flowers is – **(Pg. 72, E)**
A) When a flower has both androecium & gynoecium
B) Present in Solanaceae, Liliaceae
C) Present in mustard and Pea
D) All of these

80. How many of following show Actinomorphic, Zygomorphic respectively. **(Pg. 72, E)**
Mustard, datura, chilli, Pea, Canna, bean, gulmohur, Cassia
A) 3, 4 B) 4, 3
C) 4, 4 D) None of these

81. **Statement – I:** when a flower can be divided into two equal radial halves in any radial plane passing through the centre it is actinomorphic flower
Statement – II: when a flower can be divided into two similar halves only in one particular vertical plane, it is zygomorphic **(Pg. 72, E)**
A) Statement – I & II are correct
B) Statement – I is correct
C) Statement – II is correct only
D) Statement – I & II are incorrect

82. *Cassia* show - **(Pg. 72, E)**
A) Racemose inflorescence, zygomorphic
B) Racemose inflorescence, actinomorphic
C) Cymose inflorescence, actinomorphic
D) Cymose inflorescence, zygomorphic

83. Flower with leaf that found the base of pedicel are – **(Pg. 72, E)**
A) Bracteate B) Ebracteate
C) Petiolate D) Sessile

84. Flower with floral appendages 3 or multiple of 3 are said – **(Pg. 72, E)**
A) Tetramerous B) Trimerous
C) Triploid D) Pentamerous

85. In hypogynous flower which of following floral part takes highest position **(Pg. 73, E)**
A) Calyx B) Corolla
C) Androceium D) Pistil

86. Which of following is mismatched **(Pg. 73, E)**

	Column-I	Column-II
A)		1. Mustard
B)		2. Brinjal
C)		3. Peach
D)		4. Cucumber

87. Superior ovary found in – **(Pg. 73, E)**
A) Hypogynous flower
B) Perigynous flower
C) Epigynous flower
D) Cucumber

88. Choose the correct about perigynous flower – **(Pg. 73, E)**
A) Gynoecium is situated in centre
B) Apart from gynoecium, rest parts are located on rim of thalamus almost at same level
C) Ovary is half inferior
D) All of these

89. How many of following are example of perigynous, hypogynous and epigynous respectively. **(Pg. 73, E)**
Mustard, china Rose. Brinjal, plum, peach, rose, guava,
cucumber, ray floret sunflower, Pea, *Asparagus*
A) 3, 3, 5 B) 3, 3, 3
C) 3, 5, 3 D) 5, 3, 3

90. **(Pg. 73, E)**

A) Hypogynous flower B) Epigynous
C) Perigynous D) China rose

Paragraph-5.5.1

Parts of flower

91. Flower consist of – **(Pg. 73, E)**

A) Four reproductive whorl
B) Four whorl
C) Four accessory whorl
D) All of these

Paragraph-5.5.1.1 Calyx

92. The outermost whorl of flower is – **(Pg. 73, E)**
A) Calyx B) Corolla
C) Bract D) Thalamus

93. Choose the correct statement- **(Pg. 73, E)**
A) Sepals are members of calyx
B) Petals are members of calyx
C) Sepal are plural of corolla
D) None of these

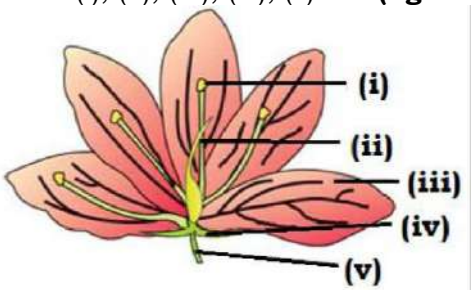
94. Sepals united in _____ and sepals are free in _____ condition **(Pg. 73, E)**
A) Gamosepalous, Polysepalous
B) Polysepalous, Gamosepalous
C) Polysepalous, Polysepalous
D) Gamosepalous, Gamosepalous

Paragraph-5.5.1.2 Corolla

95. Corolla are – **(Pg. 73, E)**
A) Composed of petal
B) United by sepals
C) Composed of tepals
D) Usually for bud protection

96. Polypetalous is condition with _____ while gamopetalous is for _____ **(Pg. 74, E)**
A) Free petal; fused petal
B) Fused petal; free petal
C) Free petal; free petal
D) Fused petal; fuced petal

97. Label (i), (ii), (iii), (iv), (v) **(Pg. 74, M)**



	(i)	(ii)	(iii)	(iv)	(v)
A)	Gynoecium	Androecium	Pedicel	Corolla	Calyx
B)	Gynoecium	Androecium	Corolla	Calyx	Pedicel
C)	Androecium	Gynoecium	Calyx	Corolla	Pedicel
D)	Androecium	Gynoecium	Corolla	Calyx	Pedicel

98. The mode of arrangement of sepals or petals in floral bud with respect to the other members of same whorl is termed as – **(Pg. 74, E)**
A) Placentation B) Aestivation
C) Phyllotaxy D) Inflorescence

99. Given diagram represent – **(Pg. 74, E)**

A) Twisted aestivation
B) Imbricate aestivation
C) Vexillary aestivation
D) Valvate aestivation

100. In *Calotropis*- **(Pg. 74, E)**
A) Sepals or petals in a whorl just touch one another at the margin, without overlapping
B) One margin of the appendage overlaps that of the next one
C) Margin of sepals or petals overlap one another but not in particular direction
D) None of these

101. "Keel" present in – **(Pg. 74, E)**
A) Valvate B) Imbricate
C) Papilionaceous D) Twisted

102. In Pea find odd one out – **(Pg. 74, E)**
A) 'Standard' is largest petals
B) 'Standard' overlaps the two lateral Keel.
C) 'Keel' are smallest anterior petals.
D) Keel are fused

103. The aestivation in gulmohur is – **(Pg. 74, E)**
A) Valvate B) Twisted
C) Imbricate D) Vexillary

104. Find odd one with respect to aestivation **(Pg. 74, E)**
A) China rose B) Cassia
C) Lady's finger D) Cotton

Paragraph-5.5.1.3 Androecium

105. Androecium composed of – **(Pg. 75, E)**
A) Sepals B) Petal
C) Stamen D) Carpel

106. Each anther is usually _____ and each lobe has _____ chambers, pollen sacs **(Pg. 75, E)**
A) Bilobed; two B) Bilobed; four
C) Tetralobed; four D) None

107. Staminode is – **(Pg. 75, E)**
A) Fertile stamen B) Sterile stamen

C) Both A & B D) None of these

108. How many of following statements are true. **(Pg. 75, M)**
(i) Stamens united into one bundle i.e. monoadelphous
(ii) Monoadelphous is in china Rose, diadelphous is in Pea and polydephous is in Citrus
(iii) Variation in the length of filaments within a flower as in Salvia & mustard
(iv) Two bundle of stamens are diadelphous and when stamen are united into two or more bundle i.e. polyadelphous
A) 1 B) 2
C) 3 D) 4

Paragraph-5.5.1.4 Gynoecium

109. Female reproductive part of flower is – **(Pg. 75, E)**
A) Androecium B) Gynoecium
C) Petal D) Sepal

110. Pollen grains receptive surface is – **(Pg. 75, E)**
A) Stigma B) Style
C) Ovary D) Ovule

111. Placenta attach- **(Pg. 75, E)**
A) Ovule to ovary
B) Ovary to thalamus
C) Ovary and other floral part
D) None of these

112. Apocarpous is- **(Pg. 75, E)**
i) Free carpel
ii) Fused carpel
iii) Present in rose
iv) Present in lotus
v) Present in tomato
A) i, iii, iv B) i, iii, v
C) ii, iii, iv D) ii, iv, v

113. After fertilization, the ovary develop into _____ and ovule matures into a _____. **(Pg. 75, E)**
A) Fruit; fruit B) Seed; fruit
C) Fruit; seed D) Seed; seed

114. Placentation is arrangement of _____ within the _____. **(Pg. 75, E)**
A) Ovary; ovule
B) Placenta; embryosac
C) Ovule; ovary
D) None of these

115. **(Pg. 75, E)**

A) Such placentation seen in Argemone
B) The placenta is axial and the ovules are attached to it in an unilocular ovary
C) Such placentation seen in china rose
D) The placenta is axial and the ovules are attached to it in multilocular ovary as in *Dianthus*

116. Match the column I and column II **(Pg. 75, E)**

	Column I		Column II
1	Parietal	a	Pea
2	Axile	b	Lemon
3	Marginal	c	*Argemone*
4	Basal	d	*Primrose*
5	Free - central	E	Sunflower

A) 1 – c, 2 – b, 3 – a, 4 – e, 5 – d
B) 1 – d, 2 – c, 3 – a, 4 – b, 5 – e
C) 1 – e, 2 – d, 3 – a, 4 – c, 5 – b
D) 1 – b, 2 – e, 3 – a, 4 – d, 5 – c

117. Choose the correct statement – **(Pg. 75, M)**
A) Unilocular ovary becomes two chambered due to the formation of false septum as in mustard
B) In Argemone ovary is two chambered due to the formation of true septum
C) Axile placentation found in multilocular ovary as in tomato
D) A & C both

118. *Dianthus* have – **(Pg. 75, E)**

A)		B)	
C)		D)	

119. In Marigold – **(Pg. 75, E)**
A) Same placentation found in sunflower
B) Placenta develop at base of ovary
C) Single ovule is attached to ovary
D) All of those

Paragraph-5.6

The fruit

120. Parthenocarpic fruit is – **(Pg. 76, E)**
A) Develop after fertilization from ovary
B) Develop without fertilization
C) Develop after fertilization from thalamus
D) A & C both

121. Pericarp differentiated into – **(Pg. 76, E)**
A) Outer thin epicarp, middle fleshy edible mesocarp and an inner stony hard endocarp in Mango
B) Outer fleshy epicarp, middle stony hard endocarp in mango
C) Outer thin epicarp, middle stony hard mesocarp and an inner seed in mango
D) None of these

Paragraph-5.7

The seed

122. Seed of wheat is made up of – **(Pg. 76, E)**
A) A radicle, an embryonal axis & one cotyledon
B) A radicle, an embryonal axis & two cotyledon
C) Embryo only
D) Only one cotyledon

Paragraph-5.7.1

Structure of a dicotyledonous seed

123. Find odd one with respect to endosperm **(Pg. 76, E)**.
A) Pea B) Gram
C) Castor D) Bean

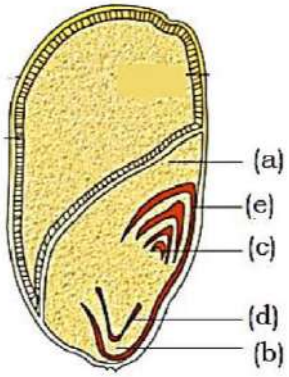
124. How many are correct statement about dicot seed? **(Pg. 77, E)**
i) Testa, an inner layer is one of two layers of seed coat
ii) Seed were attached to fruit by hilum
iii) Micropyle is small pore below hilum
iv) Castor is endospermic seed
A) 1 B) 2
C) 3 D) 4

Paragraph-5.7.2

Structure of monocotyledonous seeds

125. How many of following is wrong stated statement? **(Pg. 77, E)**
i) Generally monocot seeds are non-endospermic seed
ii) Orchid is example of dicot seed
iii) In maize, seed coat fused with fruit wall
iv) Orchid is endospermic seed
A) 1 B) 2
C) 3 D) 4

126. Label a, b, c, d, e **(Pg. 77, M)**



	a	b	c	d	e
A)	Scutellum	Coleorhiza	Plumule	Radicle	Coleoptile
B)	Scutellum	Coleorhiza	Radicle	Plumule	Coleoptile
C)	Scutellum	Coleoptile	Radicle	Plumule	Coleorhiza
D)	Scutellum	Coleoptile	Plumule	Radicle	Coleorhiza

127. Aleurone layer is – **(Pg. 77, E)**
A) Carbohydrate enrich layer
B) Proteinous layer
C) Lipid enrich layer
D) A and B

128. Scutellum present in **(Pg. 77, E)**
A) Orchid B) Castor
C) Pea D) Gram

Paragraph-5.8

Semi-technical description of a typical flowering plant-

129. Number of androecium in mustard is – **(Pg. 78, E)**
A) 2 B) 4
C) 6 D) 5

130. How many of following is incorrect about Brassicaceae (mustard) actinomorphic, zygomorphic, bisexual, K4, superior ovary, C2+2, C(4) **(Pg. 78, E)**

A) 1 B) 2
C) 3 D) 4

Paragraph-5.9 Description of some important family

Paragraph 5.9.1 Fabaceae

131. Fabaceae was earlier called as – **(Pg. 78, E)**
A) Leguminosae B) Papilionoideae
C) Both A & B D) Fabaceae

132. Given diagram is- **(Pg. 79, E)**

A) L.S of carpel of pea
B) Fruit of pea
C) T.S. of carpel of pea
D) Androecium of Pea

133. Calyx of fabaceae show- **(Pg. 79, E)**
A) Polypetalous B) Polysepalous
C) Valvate aestivation D) Both B & C

134. Androecium of Fabaceae is – **(Pg. 79, E)**
A) Ten in number B) 9 are united
C) 1 is free D) All of these

135. How many of following is endospermic seed- **(Pg. 79, E)**
Arhar, groundnut, Indigofera, muliathi, *Sesbania, Trifolium*
A) O B) 1
C) 2 D) 3

136. The correct floral formula of sunhemp is- **(Pg. 79, E)**

A) $\oplus \male\ K_{(5)}\ C_{1+2+2}\ A_{(9)+1}\ \underline{G}_1$

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

C) $\% \male\ K_{(5)}\ C_5\ A_{10}\ \underline{G}_2$

D) $\oplus \male\ \overset{\frown}{P_{3+3}}\ A_{3+3}\ \underline{G}_3$

Paragraph-5.9.2 Solanaceae

137. Which of the following is potato family? **(Pg. 79, E)**
A) Fabaceae B) Solanaceae
C) Liliaceae D) Brassicaceae

138. Find out one with respect to Solanaceae **(Pg. 80, E)**
A) Alternate phyllotaxy
B) Exstipulate
C) Reticulate venation
D) Pulvinate

139. In *Solanum*, inflorescene is- **(Pg. 80, E)**
A) Racemose B) Cymose
C) Solitary D) B and C

140. How many of following term is not correctly stated about tobacco's family.
Bicarpellary, obligately placed, apocarpous, superior ovary, bilocular, placenta swollen with many ovules, free – central placentation, drupe fruit **(Pg. 80, E)**
A) 0 B) 1
C) 2 D) 3

141. Persistant calyx found in- **(Pg. 80, E)**
A) Brinjal B) Pea
C) Onion D) *Colchicine*

142. $\oplus \female\ K_{(5)}\ \overset{\frown}{C_{(5)}}\ A_5\ \underline{G}_{(2)}$
is floral formula of how many of following- Aloe, belladonna, ashwagandha, muliathi, sunhemp, *Indigofera, Gloriosa* **(Pg. 80, E)**
A) 1 B) 2
C) 3 D) 4

143. Makoi plant – **(Pg. 80, E)**
A) *Solanum nigrum*
B) *Solanum tuberosum*
C) *Allium*
D) *Petunia*

Paragraph-5.9.3 Liliaceae

144. Given diagram is – **(Pg. 81, E)**

A) Flower of *Allium*
B) Inflorescence of *Allium*
C) Inflorescence of dicot family
D) Racemose

145. How many of following are endospermous seed.
Aloe, Asparagus, Tulip, Potato, Tomato, Pea, *Petunia*, Chilli, *Sesbania*, *Trifolium*, *Lupin*, Muliathi, Ashwagandha, *Colchicine*, *Gloriosa* **(Pg. 81, E)**
A) 10 B) 8

C) 15 D) 5

146. Onion show- **(Pg. 81, E)**
A) Axile placentation
B) Parietal placentation
C) Free central placentation
D) Basal placentation

147. Gynoceium of Aloe is not- **(Pg. 81, E)**
A) Tricarpellary B) Apocarpous
C) Syncarpous D) Superior ovary

148. Floral formula of *Colchicum autumnale* does not show- **(Pg. 81, E)**

A)	Br ⊕ ♂ ♀
B)	$P_{(3+3)}\ A_{(3+3)}$
C)	$\underline{G}_{(3)}$
D)	All of these

149. Choose mismatched – **(Pg. 81, H)**

	Column-I	Column-II
A)		*Asparagus* (vegetables)
B)		Mustard
C)		*Pisum sativum*
D)		Brassicaceae

150. The floral feature of angiosperm represented in summarized form as- **(Pg. 81, E)**
A) Floral diagram B) Floral formula
C) A and B D) None of these

ANSWER KEY

MORPHOLOGY OF FLOWERING PLANT

Q	01	02	03	04	05	06	07	08	09	10
Ans	B	C	C	B	A	A	A	B	D	B
Q	11	12	13	14	15	16	17	18	19	20
Ans	C	B	D	B	B	A	B	D	B	A
Q	21	22	23	24	25	26	27	28	29	30
Ans	D	B	A	A	A	B	A	B	A	B
Q	31	32	33	34	35	36	37	38	39	40
Ans	A	B	C	B	A	C	A	A	B	B
Q	41	42	43	44	45	46	47	48	49	50
Ans	A	D	A	D	D	D	A	A	A	A
Q	51	52	53	54	55	56	57	58	59	60
Ans	A	C	A	C	B	A	B	B	B	A
Q	61	62	63	64	65	66	67	68	69	70
Ans	B	D	A	B	D	A	D	D	B	C
Q	71	72	73	74	75	76	77	78	79	80
Ans	A	B	A	D	B	C	D	A	D	A
Q	81	82	83	84	85	86	87	88	89	90
Ans	A	A	A	B	D	B	A	D	B	B
Q	91	92	93	94	95	96	97	98	99	100
Ans	B	A	A	A	A	A	D	B	D	A
Q	101	102	103	104	105	106	107	108	109	110
Ans	C	B	C	B	C	A	B	D	B	A
Q	111	112	113	114	115	116	117	118	119	120
Ans	A	A	C	C	C	A	D	C	D	B
Q	121	122	123	124	125	126	127	128	129	130
Ans	A	A	C	B	C	A	B	A	C	D
Q	131	132	133	134	135	136	137	138	139	140
Ans	B	A	C	D	D	B	B	D	B	D
Q	141	142	143	144	145	146	147	148	149	150
Ans	A	B	A	B	A	A	B	B	B	C