MODIFICATION OF ROOT, STEM & LEAF — EXERCISE

1. Roots developing from plant parts other than radicle are
(1) Tap root (2) Adventitious root
(3) Both 1 & 2 (4) None of the above

2. Radish is an example of –
(1) Fusiform root (2) Napiform root
(3) Conical root (4) Tuberous root

3. Roots associated with nitrogen fixing bacteria are –
(1) Fusiform root (2) Napiform root
(3) Nodulated root (4) Conical root

4. The edible part of turnip is –
(1) Modified Adventitious roots
(2) Modified tap root
(3) Stem
(4) Underground stem

5. Which is a modification of root not store food
(1) Napiform root (2) Fusiform root
(3) Tuberous root (4) Stilt root

6. Stem develops from –
(1) Plumule (2) Radicle
(3) Both 1 & 2 (4) None of the above

7. Lateral organs of stem are - **[CPMT-1979]**
(1) Endogenous in origin
(2) Exogenous in origin
(3) Both
(4) None of the above

8. Which is an offset
(1) Cynodon dactylon (2) Eichhornia
(3) Fragaria (4) Mentha

9. Rhizome of ginger is a modification of stem because –
(1) It bears Adventitious roots
(2) It bears nodes and internodes
(3) It is underground
(4) It stores food material

10. Phylloclade is found in – [**CPMT-1984]**
(1) Opuntia (2) Cactus
(3) Acacia (4) Both (1) & (2)

11. Broad part of leaf is –
(1) Leaf base (2) Petiole
(3) Lamina (4) All

12. Nodulated roots occurs in **[RPMT-1995]**
(1) Leguminosae (2) Solanaceae
(3) Malvaceae (4) Papilionatae

13. Prop roots are – **[CPMT-1983]**
(1) Tap root (2) Advantitious root
(3) Secondary root (4) All

14. Thorns, spines and prickles are **[CPMT1981]**
(1) Defensive organs (2) Respiratory organs
(3) Both 1 & 2 (4) None of the above

15. In onion the swollen underground structure is – **[CPMT-1983]**
(1) Root (2) Rhizome
(3) Bulb (4) Tuber

16. A monocot can be distinguished from a dicot by- **[AFMC- 1983]**
(1) Aestivation (2) Venation
(3) Both 1 & 2 (4) None of the above

17. Ochreate stipules occur in the family – **[MPPMT-1986]**
(1) Cruciferae (2) Solanaceae
(3) Compositae (4) Polygonaceae

18. A plant with parallel venation is –
(1) Castor (2) Grass
(3) Colocasia (4) Mustard

19. Leaves are changed into spines in Xerophytic structure called
(1) Phyllode (2) Cladode
(3) Phylloclade (4) All the above

20. A dicot plant showing parallel venation is – **[BHU-1985]**
(1) Dioscorea (2) Calophyllum
(3) Cotton (4) Mango

21. Verticillaster inflorescence occurs in – **[CPMT-1984]**
(1) Solanaceae (2) Cruciferae
(3) Fabaceae (4) Labiatae

22. In cythium the between female to male flower is – **[CPMT-1986]**
(1) One : one (2) one : many
(3) many : one (4) many : many

23. Catkin is a type of - **[CPMT-1988]**
(1) Flower (2) Inflorescence
(3) Stem (4) All

24. A biparous cyme ending in Uniparous cyme constitutes - **[RPMT-1985]**
(1) Verticillaster (2) Panicle
(3) Hypanthodium (4) Cyathium

25. Flowers are sessile in –
(1) Racemose (2) Spike
(3) Corymb (4) Umbel

26. In Racemose, Flowers are arranged in –
(1) Acropetal succession
(2) Centrifugal order
(3) Centripetal order
(4) All

27. The most advanced type of Inflorescence is – **[BHU-1999]**
(1) Corymb (2) Capitulum
(3) Spadix (4) Catkin

28. Three types of flowers occur in the Inflorescence of - **[CPMT-1988]**
(1) Capitulum (2) Hypanthodium
(3) Cyathium (4) umbel

29. Axis of Inflorescence is –
(1) Pedicel (2) Peduncle
(3) Petiole (4) All

30. Pedicellate flowers arising from a single point form
(1) umbel (2) cymose head
(3) Capitulum (4) Verticillaster

31. An edible inflorescence is
(1) Brassica rapa (2) Mustard
(3) Raphanus Sativus (4) Brassica oleracea

32. Stilt roots occur in
(1) Groundnut (2) Rice
(3) Sugar cane (4) Wheat

33. Prop roots of Banyan tree are meant for
(1) Respiration
(2) Absorption of water from soil
(3) Providing support to big tree
(4) All

34. Growth of tap roots is
(1) Towards gravity
(2) Towards light
(3) Away from gravity
(4) Away from air

35. Prickles of rose are - **[BHU-1983]**
(1) Modified leaves
(2) Modified stipules
(3) Exogenous in origin
(4) Endogenous in origin

36. Function of stem is
(1) Bear leaves and branches
(2) Conduction of water & minerals
(3) Conduction and storage of food
(4) All

37. Which is not a stem modification – **[CPMT-1987]**
(1) Rhizome of ginger
(2) Corm of Colocasia
(3) Pitcher of Nepenthes
(4) Tuber of potato

38. Main function of leaf is
(1) Manufature of food (2) Exchange of gases
(3) Both 1 and 2 (4) None of the above

39. Arrangement of leaves on a stem branch is – **[MPPMT -1996]**
(1) Venation (2) Vernation
(3) Infloresecence (4) Phyllotaxy

40. A modification of leaf is - **[MPPMT-1988]**
(1) Phyllode (2) Phylloclade
(3) Cladode (4) Corm

41. The largest leaf belongs to **[CPMT-1995]**
(1) Nerium (2) Tobaco
(3) Victoria (4) Rafflesia

42. Occurance of different types of leaves on the same plant is
(1) Heterophully (2) Heterotrophy
(3) Heteronasty (4) All

43. Cyathium inflorescence is found in –
(1) Croton (2) Ficus
(3) Euphorbia (4) Ricinus

44. Inflorescence is collection of
(1) Petals (2) Stamens
(3) Flowers (4) Carpels

45. Which one of the following is of related type
(1) Catkin and Hypanthodium
(2) Raceme and Cyathium
(3) Corymb and umbel
(4) Verticillaster and spike

46. Zig-Zeg development of flower on inflorescence axis is **[MPPMT-1988]**
(1) Cyathium (2) Capitulum
(3) Helicoid cyme (4) Scorpioid cyme

47. Number of female flower in a Cyathium is
(1) 1 (2) 2
(3) 3 (4) 4

48. National flower of india is **[CPME-79, 81]**
(1) Lotus (2) Rose
(3) Carica (4) Acacia

49. Arrangement of sepals & petals with respect of other is
(1) Venation (2) Aestivation
(3) Cohesion (4) Adhesion

50. Glumes represent –
(1) Bracts (2) Sepals
(3) Petals (4) Stamens

51. Didyna, ous condition is related to
(1) Androecium (2) Inflorescence
(3) Gynoecium (4) All

52. Stamens attached to petals are
(1) Epipetalous (2) Epiphyllous
(3) Episepalous (4) All

53. The floral organs arise from
(1) Mother axis (2) Thalamus
(3) Root (4) Pedicel

54. Androecium is the whorl of
(1) Anthers (2) Stamens
(3) Filaments (4) Tepals

55. If the filaments are fused in a single group the condition is
(1) Monoadelphous (2) Polyadelphous
(3) Both 1 & 2 (4) None of the above

56. Syncarpous gynoecium has two or more
(1) Free carpels (2) fused carpels
(3) free ovaries (4) All

57. A typical flower with superior ovary and other floral parts inferior is
(1) Polygamous (2) Hypogynous
(3) Perigynous (4) Epigynous

58. The tissue which attaches the ovules inside the ovary is
(1) Funicle (2) Hilum
(3) Placenta (4) Chalaza

59. Pappus is modification of –
(1) Bracts (2) Corolla
(3) Calyx (4) All

60. Arrangement of ovules in the cavity of ovary is
(1) Aestivation (2) Placentation
(3) Both 1 & 2 (4) All

61. Synandrous condition is fusion of
(1) Filaments only
(2) Both filaments and anthers
(3) Anthers only
(4) Petals

62. A characteristic of angiosperm is
(1) Flowers (2) Roots
(3) Seed (4) All

63. Basifixed anther is attached to filament
(1) At top firmly (2) At base firmly
(3) Both 1 & 2 (4) All

64. Adhesion in a flower is –
(1) Union of dissimilar parts
(2) Union of similar parts
(3) Both 1 & 2
(4) None of the above

65. Funnel shaped corolla is called
(1) Campanulate (2) Rotate
(3) Infundibuliform (4) All

66. Cruciform corolla is found in
(1) Pea (2) China rose
(3) Radish (4) Sunflower

67. Axis between corolla and androecieum is
(1) Anthophore (2) Gynophore
(3) Gynandrophore (4) Androphore

68. The fourth whorl of flower is of
(1) Petals (2) Stamens
(2) Carpels (4) Sepals

69. The side of a flower facing the mother axis is called –
(1) Anterior side (2) Posterior side
(3) Dorsal side (4) Ventral side

70. Which of the following are Schizocarpic fruits :-
(1) Siliqua & Legume
(2) Capsule & Berry
(3) Lomentum & Capsule
(4) Carcerulus & Lomentum

71. Siliqua is the fruit of :-
(1) Cruciferae (2) Malvaceae
(3) Liliaceae (4) Solanaceae

72. Fruit of brinjal :-
(1) Berry (2) Hesperidium
(3) Drupe (4) Pome

73. Which of the following plants produces edible root:-
(1) Raphanus sativus
(2) Brassica campestris
(3) Brassica oleracea
(4) Eruca sativa

74. Which of the following is false fruit :-
(1) Pome (2) Pepo
(3) Hesperidium (4) Drupe

75. A true fruit develops from :-
(1) Ovary (2) Thalamus
(3) Petals (4) Receptacle

76. A berry fruit is :-
(1) Fleshy and single seeded
(2) Fleshy and multiseeded
(3) Dry and multiseeded
(4) Dehiscent & single seeded

77. Fruit of 'Ground nut" is :-
(1) Nut (2) Legume
(2) Lomentum (4) Capsule

78. Immature 'Fig' or 'Gular' fruit is :- **[RPMT-87]**
(1) Berry (2) Syconus
(3) Samara (4) Pepo

79. Inflorescence and fruit of sunflower is :- **[AFMC-91]**
(1) Capitulum and achene
(2) Corymb and cypsela
(3) Capitulum and cypsela
(4) Corymb and achene

80. Water melon is :-
(1) Pome (2) Sorosis
(3) Pepo (4) Drupe

81. Geocarpic fruits is a – **[AIPMT-2000]**
(1) Carrot (2) Radish
(3) Ground nut (4) Turnip

82. Pneumatophores are found in - **[AIPMT-2000]**
(1) The vegetation which is found in marshy and saline lake
(2) The vegetation which found in saline soil
(3) Xerophytes
(4) Epiphytes

83. Tetradyanamous conditions occur in: **[AIPMT2000]**
(1) Cruciferae (2) Malvaceae
(3) Solanaceae (4) Lilliaceae

84. Which is correct for edible part :- **[AIPMT-2001]**
(1) Tomato-Thalamus (2) Maize-Cotyledons
(3) Guava-Mesocarp (4) Date palm-Pericarp

85. Bicarpellary gynoecium and oblique ovary occurs in- **[AIPMT-200]**
(1) Mustard (2) Banana
(3) Pisum (4) Brinjal

86. Edible part of Banana :- **[AIPMT-2001]**
(1) Epicarp
(2) Mesocarp and less developed endocarp
(3) Endocarp and less developed Mesocarp
(4) Epicarp & mesocarp

87. What is the eye of potato :- **[AIPMT-2001]**
(1) Axillary bud (2) Accessory bud
(3) Adventitious bud (4) Apical bud

88. Edible part in mango is: - **[AIPMT-2002,04]**
(1) Mesocarp (2) Epicarp
(3) Endocarp (3) Epidermis

89. Geocarpic fruit is: - **[AIPMT-2002]**
(1) Potato (2) Peanut
(3) Onion (4) Garlic

90. Juicy hair-like structures observed in the lemon fruit develop from :- **[AIPMT-2003]**
(1) Exocarp (2) Mesocarp
(3) Endocarp (4) Mesocarp and endocarp

91. Which of the following represents the edible part of the fruit of Litchi - **[AIPMT-2005]**
(1) Endocarp (2) Pericarp
(3) Juicy aril (4) Mesocarp

92. Pineapple (ananas) fruit develops from **[AIPMT-2006]**
(1) a unilocular polycarpellary flower
(2) a multipistillate syncarpous flower
(3) a cluster of compactly borne flowers on a common axis
(4) a multilocular monocarpellary flower

93. In which of the following fruits is the edible part the aril ? **[AIPMT-2006]**
(1) Custard apple (2) Pomegranate
(3) Orange (4) Litchi

94. Long filamentous threads protruding at the end of a young cob of maize are **[AIPMT-2006]**
(1) Anthers (2) Styles
(3) Ovaries (4) Hairs

MODIFICATION OF ROOT, STEM & LEAF

ANSWER KEY

(3) ovaries (4)

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	**2**	**1**	**3**	**2**	**4**	**1**	**2**	**2**	**2**	**4**	**3**	**4**	**2**	**1**	**3**	**2**	**4**	**2**	**3**	**2**
Que.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans.	**4**	**2**	**2**	**1**	**2**	**1**	**2**	**2**	**2**	**1**	**4**	**3**	**3**	**1**	**3**	**4**	**3**	**1**	**4**	**1**
Que.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	**3**	**1**	**3**	**3**	**3**	**4**	**1**	**1**	**2**	**1**	**1**	**1**	**2**	**2**	**1**	**2**	**2**	**3**	**3**	**2**
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Ans.	**2**	**1**	**2**	**1**	**3**	**3**	**4**	**3**	**2**	**4**	**1**	**1**	**1**	**1**	**1**	**2**	**3**	**2**	**3**	**3**
Que.	81	82	83	84	85	86	87	88	89	90	91	92	93	94						
Ans.	**3**	**1**	**1**	**4**	**4**	**3**	**1**	**1**	**2**	**3**	**3**	**3**	**4**	**2**						