EXERCISE – I (Conceptual Question) Build Up your Understanding

1. Primary precursor of I.A.A is :-
(1) Phenyl alanine (2) Tyrosine (3) Tryptophan (4) Leucin

2. The biological activity of I.A.A is tested by :-
(1) α - amylase test (2) Avena curvature test
(3) Endosperm activity test (4) Chlorophyll preservation test

3. Insole, 3 acetic acid, celled ad auxin was first isolated from :-
(1) Human urine (2) Corn germ oil (3) Fusarium (4) Rhizopus

4. Stem elongation is affected by :-
(1) Gibberellins and florigen (2) Auxin and gibberellins
(3) Florigen and kinin (4) Kinin and auxin

5. Apical dominance means :-
(1) Suppression of growth of apical bud by maxillary buds
(2) Suppression of growth of axillary buds by the presence of apical bud.
(3) Stimulation of growth of axillary buds by removal of apical bud
(4) Inhibition of growth of axillary buds by removal of apical bud.

6. Auxin inhibits the growth of -
(1) Apical bud (2) Lateral axillary buds
(3) Roots on stem cutting (4) Parthenocarpic development of fruit

7. Which of the following is not a natural occurring plant hormone ?
(1) 2, 4 - D (2) GA_2 (3) Gibberellin (4) I.A.A

8. Leaf fall occurs when the content of :-
(1) Auxin increases (2) Auxin decreases
(3) Abscisic acid decreases (4) Gibberellic acid decreases

9. Auxanometer is meant for measuring
(1) Respiratory activity (2) Photosynthetic activity
(3) Growth activity (4) Osmotic pressure

10. Auxin is mainly produced by -
(1) Apical root meristem (2) Root cambium
(3) Apical shoot meristem (4) Phloem in shoot tip

11. In plants growth is
(1) Restricted to certain regions or structure
(2) Irreversible
(3) Change in size
(4) All the above

12. Growth is primarily affected by two climatic factors which are ?

(1) Light and temperature (2) Temperature and relative humidity
(3) Light and wind (4) Rainfall and temperature

13. In a growing plant, the first phase during the process of growth is -
(1) Cell division (2) Cell enlargement
(3) Cell differentiation (4) Cell maturation

14. The natural plant hormones were first isolated from
(1) Cotton fruits, spinach leaves and rice plant
(2) Avena coleoptiles, spinach leaves and fungus Gibberella
(3) Human urine and com germ oil
(4) Human urine and rice plant

15. Plants bend toward the light because –
(1)They need light for photosynthesis (2) They need light for respiration
(3) Light attracts them (4) Cells on the shaded side elongate more

16. If the tip of a seedling is cut off growth as well as bending ceases because it hampers
(1) Respiration (2) Photosynthesis
(3) Perception of light stimulus (4) Transpiration

17. Growth hormone acts –
(1) Always as growth promoters
(2) Always are growth inhibitors
(3) Some as promoters and some as inhibitors
(4) Rarely as growth inducers

18. The movement of auxin is largely
(1) Acropetal (2) Basipetal (3) Lateral (4) Centripetal

19. Which growth hormone is responsible for apical dominance ?
(1) Auxin (2) Cytokinin (3) Gibberellin (4) Ethylene

20. 2, 4 - D is a synthetic –
(1) Auxin (2) Gibberellin (3) Cytokinin (4) Aorigen

21. Which of the following induces femaleness in plants ?
(1) Ethylene (2) Ethanol (3) ABA (4) Gibberellin

22. Agent orange is
(1) Biodegradable insecticide (2) Dioxin weedicide (2,4-D + 2,4;5-T)
(3) Biofertilizer (4) Biopesticide

23. Richmond - Lang effect is due to :
(1) Cytokinin (2) Auxin (3) ABA (4) All the above

24. A hypothetical chemical beloved to be· involved in flowering is :
(1) Gibberellins (2) NAA (3) Aorigen (4) IAA

25. Photoperiodic stimulus is picked up by :
(1) Phytochrome (2) Phytohormome (3) Enzyme (4) Vernalin

26. Which of the following plant hormone substitutes for long photoperiod in flowering plant ?
(1) Auxin (2) Gibberellin (3) Cytokinin (4) Ethylene

27. Intermodal elongation is stimulated by :
(1) Auxin (2) Cytokinin (3) Gibberellin (4) Phenol

28. Cytokinin –
(1) Is a hormone whose main function is to induce the cell division
(2) Induce bolting
(3) Induce senescence
(4) Causes dormancy

29. Bolting hormone is
(1) Auxin (2) Gibberellin (4) Ethylene (3) ABA

30. Gibberellins are
(1) Growth inhibitors (2) Growth promotor
(3) Not concerned with growth at all (4) Of little potential in agriculture

31. Gibberellins do not cause
(1) Shortening of genetically tall plants (2) Stimulation of seed germination
(3) Promotion of parthenocarpy (4) Induction of a- amylase synthesis in barley

32. Gibberellins can promote seed germination because of their influence on :
(1) Rate of cell division (2) Production of hydrolyzing enzymes
(3) Synthesis of abscisic acid (4) Absorption of water through hard seed coat.

33. Which of the following is a coconut milk factor?
(1) Auxin (2) ABA (3) Morphactin (4) Cytokinin

34. In germinating seeds Amylase, Proteases, Lipases are stimulated by :
(1) Auxin (2) Gibberellin (3) Cytokinin (4) Ethylene

35. Richmond lang effect due to cytokinins pertains to
(1) Root formation (2) Apical domiopnce
(3) Delay of senescence (4) Leaf formation

36. Which one of the following is a gaseous plant hormone ?
(1) Auxin (2) Gibberellin (3) Ethylene (4) Cytokinin

37. Pomalin is sprayed over apple to increase fruit size, it is -
(1) Auxin (2) Mixture of auxin and gibberellin
(3) Mixture of auxin and cytokinin (4) Mixture of cytokinin and gibberellin

38. Apical dominance can be overcome by application of :
(1) Auxin (2) Gibberellin (3) Cytokinin (4) Florigen

39. The maximum growth rate occurs in :
(1) Exponential phase (2) Stationary phase
(3) Senescent phase (4) Lag phase

40. Dormancy of seed is broken by :
(1) Auxin (2) Gibberellins (3) Ethylene (4) Cytokinin

41. In tissue culture, differentiation of shoot is controlled by:
(1) Light Intensity (2) Temperature shock
(3) Low Auxin to high CK (4) High auxin to low CK

42. Pine apple can made to flower in off season by the application :
(1) Zeatin (2) Ethylene (3) Short day (4) Low temperature

43. Among the following which helps in early ripening of fruits?
(1) Methane (2) Ethylene (3) CO_2 (4) CO

44. Abscisic acid induces :
(1) Shoot elongation (2) Cell elongation and cell wall formation
(3) Cell division (4) Leaf fall and dormancy

45. In autumn leaf fall occurs, because
(1) Formation of abscission layer at the base (2) Leaf becomes heavy
(3) Leaf does not remain green (4) Of low temperature

46. Which of the following is growth inhibitor-
(1) IAA (2) ABA (3) NAA (4) GA_3

47. Abscisic acid treatment results in-
(1) Leaf expansion (2) Stem elongation (3) Stomatal closure (4) Root elongation

48. Natural cell division inducing factor occurs in
(1) Coconut milk (2) Immature maize seeds
(3) Both (1) and (2) (4) Heated t - RNA

49. Seeds of Tomato do not germinate in its pulp due to
(1) Presence of excess salts (2) Presence of ferulic acid
(3) Absence of oxygen (4) Presence of ABA

50. What is a stress hormone ?
(1) Benzyl aminopurine (2) Dichlorophenoxy acetic acid
(3) Ethylene (4) Abscisic acid

51. Seed dormancy is due to the :
(1) Ethylene (2) Abscisic acid (3) IAA (4) Starch

52. Hormone responsible to induce senescence :
(1) ABA (2) Auxin (3) GA (4) Cytokinin

53. One set of a plant was grown at 12 hrs. day and 12 hours night period cycles and it flowered. While in the other set night phase was interrupted by flash of light and it did not flower. Under which one of I the following categories will you place this plant
(1) Short day (2) Long day (3) Darkness neutral (4) Day neutral

54. Long day plant's produces flowers when they exposed to :
(1) Any duration of light (2) Light period longer than a critical day length
(3) Light period longer than 12 hrs (4) Short photoperiods than critical day length

55. Which of the following is a hypothetical hormone?
(1) Gibberellins (2) Auxin (3) Cytokinin (4) Florigen

56. Which plant is LDP ?
(1) Tobacco (2) Glycine max (3) Xanthium (4) Spinach

57. Wheat & henbane are :-
(1) SDP (2) DNP (3) LNP (4) LDP

58. In short day plants (SOP) flowering is induced by
(1) Long night
(2) Photoperiod less than 12 hours
(3) Photoperiod shorter than critical value and uninterrupted long night.
(4) Long photoperiod and interrupted long night,

59. Which is not a plant hormone -
(1) Phytochrome (2) Florigen (3) GA (4) IAA

60. Which pigment absorbs the red and far-red light?
(1) Cytochrome (2) Phytochrome (3) Carotenoids (4) Chlorophyll

61. Cell elogation in internodel regions of the green plants takes place due to :
(1) Ethylene (2) Indole acetic acid (3) Cytokinin (4) Gibberellins

62. Prunning of plants promotes branching, because the axillary buds get sensitized to :
(1) Ethylene (2) Gibberellin (3) Cytokinin (4) IAA

ANSWER KEY

EXERCISE-I (Conceptual Question)

1. (3) **2.** (2) **3.** (1) **4.** (2) **5.** (2) **6.** (2) **7.** (1)

8.	(2)	**9.**	(3)	**10.**	(3)	**11.**	(4)	**12.**	(1)	**13.**	(1)	**14.**	(3)
15.	(4)	**16.**	(3)	**17.**	(3)	**18.**	(2)	**19.**	(1)	**20.**	(1)	**21.**	(1)
22.	(2)	**23.**	(1)	**24.**	(3)	**25.**	(1)	**26.**	(2)	**27.**	(3)	**28.**	(1)
29.	(2)	**30.**	(2)	**31.**	(1)	**32.**	(2)	**33.**	(4)	**34.**	(2)	**35.**	(3)
36.	(3)	**37.**	(4)	**38.**	(3)	**39.**	(1)	**40.**	(2)	**41.**	(3)	**42.**	(2)
43.	(2)	**44.**	(4)	**45.**	(1)	**46.**	(2)	**47.**	(3)	**48.**	(3)	**49.**	(2)
50.	(4)	**51.**	(2)	**52.**	(1)	**53.**	(1)	**54.**	(2)	**55.**	(4)	**56.**	(4)
57.	(4)	**58.**	(3)	**59.**	(1)	**60.**	(2)	**61.**	(4)	**62.**	(3)		