CLASS XI BIO CH- 13

MCQ Set 3

1. The development of a mature plant from a zygote follows a:
a) Random path
b) Precise and ordered sequence
c) Path controlled only by environment
d) Single step process

2. The sites of indefinite growth in plants are the:
a) Leaves
b) Flowers
c) Meristems
d) Fruits

3. The phase of growth where cells undergo wall thickening and protoplasmic modifications is:
a) Meristematic
b) Elongation
c) Maturation
d) Lag

4. The linear curve obtained in arithmetic growth is described by the equation:
a) $W_1=W_0+ e^{rt}$
b) $L_t=L_0+rt$
c) $A=\pi r^2$
d) $Y=mx+c$

5. The relative growth rate is a measure of the plant's:
a) Total size
b) Efficiency in producing new material
c) Age
d) Water content

6. Which of the following is an intrinsic factor for plant growth?
a) Light
b) Temperature
c) Plant Growth Regulators
d) Water

7. The process where a differentiated cell regains the capacity to divide is:
a) Redifferentiation
b) Dedifferentiation
c) Differentiation
d) Development

8. The parenchyma cells dividing in tissue culture are an example of:
a) Differentiation

b) Dedifferentiation
c) Redifferentiation
d) Plasticity

9. The phenomenon where leaves of juvenile and mature plants are different is called:
a) Apical dominance
b) Heterophylly
c) Parthenocarpy
d) Bolting

10. Which PGR is largely an inhibitor of growth activities?
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

11. The PGR that was isolated from human urine is:
a) Gibberellin
b) Cytokinin
c) Auxin
d) Ethylene

12. The fungal pathogen *Gibberella fujikuroi* produces:
a) Auxins
b) Gibberellins
c) Cytokinins
d) Ethylene

13. Which PGR is used to prepare weed-free lawns?
a) IAA
b) 2,4-D
c) Kinetin
d) ABA

14. Apical dominance is primarily caused by:
a) Cytokinins produced in the roots
b) Auxins produced in the apical bud
c) Gibberellins in the leaves
d) Ethylene in the fruits

15. The PGR that can be used to induce flowering in pineapples is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

16. Gibberellins are used in the brewing industry to:
a) Delay malting
b) Speed up the malting process
c) Add flavor
d) Preserve the beer

17. The first cytokinin discovered was isolated from:
a) Corn kernels
b) Coconut milk
c) Autoclaved herring sperm DNA
d) Fungal cultures

18. Cytokinins are synthesized in the:
a) Root apices
b) Senescing leaves
c) Ripening fruits
d) Mature xylem

19. Ethylene promotes the following in dicot seedlings:
a) Vertical growth
b) Apical hook formation
c) Root inhibition
d) Leaf expansion

20. The compound used as a source of ethylene in agriculture is:
a) Kinetin
b) Zeatin
c) Ethephon
d) NAA

21. ABA helps seeds withstand desiccation by inducing:
a) Germination
b) Dormancy
c) Ripening
d) Abscission

22. Which PGR would you use to induce stomatal closure?
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

23. The PGR that promotes root growth and root hair formation is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Ethylene

24. For inducing growth in axillary buds, one would use:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

25. The PGR that can initiate germination in peanut seeds is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Ethylene

26. The cells of the meristematic phase are characterized by:
a) Secondary cell walls
b) Large vacuoles
c) Thin, cellulosic primary walls
d) No nuclei

27. In a sigmoid curve, the exponential phase is also called the:
a) Lag phase
b) Log phase
c) Stationary phase
d) Senescent phase

28. The growth of a tree showing seasonal activities would show:
a) A linear curve
b) A sigmoid curve
c) An arithmetic curve
d) A series of sigmoids

29. An example of open differentiation is:
a) All cells becoming identical
b) Cells maturing into different structures based on location
c) Cells losing the capacity to divide
d) Cells regaining division capacity

30. The sequence of developmental processes in a plant cell is:
a) Division, Maturation, Expansion, Differentiation
b) Division, Expansion, Maturation, Differentiation
c) Expansion, Division, Differentiation, Maturation
d) Differentiation, Division, Expansion, Maturation

31. Which of the following is an intercellular intrinsic factor?
a) Light
b) Temperature
c) Plant Growth Regulators
d) Gravity

32. The PGR that was discovered as 'inhibitor-B', 'abscission II', and 'dormin' was later identified as:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

33. Which PGR promotes leaf abscission?
a) Auxin
b) Gibberellin
c) Cytokinin
d) Ethylene

34. The PGR that delays senescence in fruits is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

35. The measurable increase in the amount of protoplasm is a definition of growth at the:
a) Organ level
b) Cellular level
c) Tissue level
d) Organism level

36. The growth of a watermelon cell by up to 3,50,000 times is an example of growth as an increase in:
a) Cell number
b) Cell size
c) Fresh weight
d) Dry weight

37. The phase of growth where new cells are added by meristem activity is called:
a) Closed growth
b) Open growth
c) Determinate growth
d) Primary growth

38. If a rotten fruit is mixed with unripe fruits, it will:
a) Have no effect
b) Delay ripening of others
c) Hasten ripening of others due to ethylene release
d) Cause the unripe fruits to decay

39. Which PGR is an indole compound?
a) Kinetin
b) IAA
c) ABA
d) Ethylene

40. The PGR that promotes horizontal growth of seedlings is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Ethylene

41. Seed germination occurs when:
a) The seed is old
b) Favourable conditions exist
c) ABA is applied
d) The seed coat is hard

42. The cells proximal to the meristematic zone represent the phase of:
a) Cell division
b) Elongation
c) Maturation
d) Senescence

43. Which of the following is a synthetic auxin?
a) IAA
b) IBA

c) NAA
d) Zeatin

44. The PGR that controls xylem differentiation is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

45. The PGR that promotes internode elongation just prior to flowering is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

46. The PGR that helps overcome apical dominance is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

47. The PGR that initiates flowering and synchronizes fruit-set in pineapples is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Ethylene

48. A plant growth regulator that is a derivative of carotenoids is:
a) IAA
b) Kinetin
c) ABA
d) GA3

49. The parameter generally measured to represent growth is:
a) Color
b) Smell
c) Increase in cell number or size
d) Taste

50. Plant growth and development is under the control of:
a) Only PGRs
b) Only genes
c) Only environment
d) Intrinsic and extrinsic factors

Answer Key for Set 3

1. b) Precise and ordered sequence
2. c) Meristems
3. c) Maturation
4. b) $L_t = L_0 + rt$
5. b) Efficiency in producing new material
6. c) Plant Growth Regulators
7. b) Dedifferentiation
8. b) Dedifferentiation
9. b) Heterophylly
10. d) Abscisic Acid
11. c) Auxin
12. b) Gibberellins
13. b) 2,4-D
14. b) Auxins produced in the apical bud
15. a) Auxin
16. b) Speed up the malting process
17. c) Autoclaved herring sperm DNA
18. a) Root apices
19. b) Apical hook formation
20. c) Ethephon
21. b) Dormancy
22. d) Abscisic Acid
23. d) Ethylene
24. c) Cytokinin
25. d) Ethylene
26. c) Thin, cellulosic primary walls
27. b) Log phase
28. d) A series of sigmoids
29. b) Cells maturing into different structures based on location
30. b) Division, Expansion, Maturation, Differentiation
31. c) Plant Growth Regulators
32. d) Abscisic Acid
33. d) Ethylene
34. b) Gibberellin
35. b) Cellular level
36. b) Cell size
37. b) Open growth
38. c) Hasten ripening of others due to ethylene release
39. b) IAA
40. d) Ethylene
41. b) Favourable conditions exist
42. b) Elongation
43. c) NAA
44. a) Auxin
45. b) Gibberellin
46. c) Cytokinin
47. d) Ethylene
48. c) ABA
49. c) Increase in cell number or size
50. d) Intrinsic and extrinsic factors

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