# CLASS XI CH-13 BIO

**MCQ Set 2**

1. What is the irreversible permanent increase in the size of an organ called?
a) Development
b) Differentiation
c) Growth
d) Dedifferentiation

2. Secondary growth in plants is due to the activity of:
a) Apical Meristems
b) Intercalary Meristems
c) Lateral Meristems
d) Root Hairs

3. The phase of growth where cells attain their maximal size is:
a) Meristematic
b) Elongation
c) Maturation
d) Lag

4. In geometrical growth, the exponential phase is characterized by:
a) Slow growth
b) Both progeny cells continuing to divide
c) Only one cell dividing
d) Stationary growth

5. The ability of a plant to produce new plant material is its:
a) Absolute Growth Rate
b) Efficiency Index
c) Plasticity
d) Differentiation Capacity

6. Turgidity of cells helps in:
a) Cell division
b) Extension growth
c) Differentiation
d) Senescence

7. The process leading to maturation of cells to perform specific functions is:
a) Dedifferentiation
b) Redifferentiation
c) Differentiation
d) Development

8. Formation of interfascicular cambium from parenchyma is an example of:
a) Differentiation
b) Dedifferentiation

c) Redifferentiation
d) Plasticity

9. A tumor in a plant can be described as:
a) A product of normal differentiation
b) A mass of cells due to uncontrolled division
c) A structure formed by redifferentiation
d) A necessary part of development

10. Heterophylly in cotton and coriander is an example of:
a) Differentiation
b) Development
c) Plasticity
d) Dormancy

11. Which of the following is NOT a plant growth promoter?
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

12. The PGR that causes the 'foolish seedling' disease in rice is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Ethylene

13. Which PGR induces parthenocarpy in tomatoes?
a) Gibberellin
b) Cytokinin
c) Auxin
d) Ethylene

14. Decapitation leads to the growth of lateral buds because it removes the source of:
a) Cytokinins
b) Gibberellins
c) Auxins
d) Abscisic Acid

15. NAA and 2,4-D are examples of:
a) Natural Auxins
b) Synthetic Auxins
c) Natural Cytokinins
d) Synthetic Cytokinins

16. Gibberellins can help in increasing the yield of sugarcane by:
a) Increasing leaf size
b) Increasing stem length
c) Increasing root depth
d) Promoting flowering

17. The cytokinin isolated from corn-kernels is:
a) Kinetin
b) Zeatin
c) IAA
d) ABA

18. Cytokinins are known to:
a) Promote apical dominance
b) Delay leaf senescence
c) Promote stomatal closure
d) Inhibit cell division

19. Ethylene is synthesized in large amounts by:
a) Meristematic tissues
b) Senescing tissues and ripening fruits
c) Young leaves
d) Root tips

20. The effect of ethylene on deep water rice plants is to promote:
a) Root decay
b) Internode elongation
c) Leaf abscission
d) Seed dormancy

21. Ethephon is used in agriculture because it:
a) Is a direct source of auxin
b) Releases ethylene slowly
c) Inhibits gibberellin synthesis
d) Promotes cytokinin activity

22. ABA plays a crucial role in:
a) Promoting cell division
b) Seed germination
c) Stress tolerance and dormancy
d) Fruit ripening

23. Which PGR would you use to delay leaf senescence?
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

24. The PGR that acts as a general plant growth inhibitor is:
a) IAA
b) GA
c) Kinetin
d) ABA

25. For "bolting" of a rosette plant, one would use:
a) Auxin
b) Gibberellin

c) Cytokinin
d) Abscisic Acid

26. Cells in the meristematic phase have:
a) Thick secondary walls
b) Large vacuoles
c) Rich protoplasm and large nuclei
d) No plasmodesmata

27. The stationary phase in a sigmoid curve occurs due to:
a) Unlimited nutrients
b) Limited nutrient supply
c) The start of cell division
d) The end of differentiation

28. The parameter used to measure the growth of a dorsiventral leaf is:
a) Length
b) Surface area
c) Volume
d) Fresh weight

29. A product of redifferentiation in a woody dicot is:
a) Cork cambium
b) Parenchyma cell
c) Cork cell
d) Meristematic cell

30. The development of a cell from meristematic to mature is a process that includes:
a) Only cell division
b) Only cell enlargement
c) Cell division, elongation, and maturation
d) Only differentiation

31. Which extrinsic factor affects plant growth and development via PGRs?
a) Soil color
b) Light
c) Wind
d) Magnetic fields

32. The PGR that was first confirmed to be released from ripened oranges was:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Ethylene

33. Which PGR is primarily responsible for the closure of stomata?
a) Auxin
b) Cytokinin
c) Abscisic Acid
d) Gibberellin

34. The PGR that promotes adventitious shoot formation is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Ethylene

35. The expansion of a leaf is an example of:
a) Differentiation
b) Growth
c) Dedifferentiation
d) Development

36. The swelling of a piece of wood in water is:
a) Growth
b) Imbibition
c) Differentiation
d) Development

37. The lag phase in geometrical growth is characterized by:
a) Rapid growth
b) Slow growth
c) No growth
d) Death

38. If dividing cells stop differentiating, the plant would:
a) Grow normally
b) Not develop proper functional tissues
c) Flower early
d) Become dormant

39. Which PGR is a derivative of adenine?
a) IAA
b) Kinetin
c) ABA
d) Ethylene

40. The PGR that can break seed and bud dormancy is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Ethylene

41. The first step in the process of plant growth is:
a) Flowering
b) Seed germination
c) Fruit formation
d) Differentiation

42. Cells in the elongation zone are characterized by:
a) Primary cell walls only
b) Increased vacuolation

c) Lignified secondary walls
d) Loss of protoplasm

43. Which of the following is a gaseous PGR?
a) IAA
b) GA3
c) ABA
d) C2H4

44. The Darwin's experiments on phototropism led to the discovery of:
a) Gibberellins
b) Auxins
c) Cytokinins
d) Ethylene

45. The callus proliferation in tobacco stems required auxins and supplements like coconut milk, which led to the discovery of:
a) Auxins
b) Gibberellins
c) Cytokinins
d) Abscisic Acid

46. Which PGR promotes male flowers in cucumbers?
a) Gibberellin
b) Cytokinin
c) Auxin
d) Ethylene

47. The PGR that helps seeds withstand desiccation is:
a) Auxin
b) Gibberellin
c) Cytokinin
d) Abscisic Acid

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

49. The growth of a plant in terms of cell number is observed in:
a) Watermelon cell expansion
b) Maize root apical meristem
c) Pollen tube growth
d) Leaf expansion

50. The control of plant growth and development involves:
a) Only intrinsic factors
b) Only extrinsic factors
c) Both intrinsic and extrinsic factors
d) Only genetic factors

Answer Key for Set 2

1. c) Growth
2. c) Lateral Meristems
3. c) Maturation
4. b) Both progeny cells continuing to divide
5. b) Efficiency Index
6. b) Extension growth
7. c) Differentiation
8. b) Dedifferentiation
9. b) A mass of cells due to uncontrolled division
10. c) Plasticity
11. d) Abscisic Acid
12. b) Gibberellin
13. c) Auxin
14. c) Auxins
15. b) Synthetic Auxins
16. b) Increasing stem length
17. b) Zeatin
18. b) Delay leaf senescence
19. b) Senescing tissues and ripening fruits
20. b) Internode elongation
21. b) Releases ethylene slowly
22. c) Stress tolerance and dormancy
23. c) Cytokinin
24. d) ABA
25. b) Gibberellin
26. c) Rich protoplasm and large nuclei
27. b) Limited nutrient supply
28. b) Surface area
29. c) Cork cell
30. c) Cell division, elongation, and maturation
31. b) Light
32. d) Ethylene
33. c) Abscisic Acid
34. c) Cytokinin
35. b) Growth
36. b) Imbibition
37. b) Slow growth
38. b) Not develop proper functional tissues
39. b) Kinetin
40. d) Ethylene
41. b) Seed germination
42. b) Increased vacuolation
43. d) C2H4
44. b) Auxins
45. c) Cytokinins
46. a) Gibberellin
47. d) Abscisic Acid
48. c) GA3
49. b) Maize root apical meristem

50. c) Both intrinsic and extrinsic factors