

Chapter – 13 | Plant growth and Development

QUIZ
PART-02

1. At cellular level, growth mainly occurs due to increase in —
A. Protoplasm
B. Chlorophyll only
C. Cell wall colour
D. Seed coat thickness (A)

Explanation : Growth at the cellular level is mainly due to increase in protoplasm.

2. Growth can be measured by —
A. Fresh weight only
B. Dry weight only
C. Length only
D. Fresh weight, dry weight, length, area, volume and cell number (D)

Explanation : Different parameters are used because one parameter cannot measure all kinds of growth.

3. Maize root apical meristem can produce about how many cells per hour?
A. 175
B. 1,750
C. 17,500 or more
D. 3,50,000 (C)

Explanation : The PPT states that one maize root apical meristem can produce 17,500 or more new cells per hour.

4. Cells in watermelon may increase in size up to —
A. 350 times
B. 3,500 times
C. 35,000 times
D. 350,000 times (D)

Explanation : Watermelon cells show very large increase in cell size.

5. Growth of pollen tube is measured in terms of —
A. Length.
B. Dry weight only
C. Width only
D. Cell colour (A)

Explanation : Pollen tube growth is best measured by increase in length.

6. Growth in a dorsiventral leaf is measured by increase in —
A. Surface area
B. Seed number
C. Root length
D. Fruit weight (A)

Explanation : Leaf growth is represented by increase in surface area.

7. Linear growth of plants is measured by —
A. Respirometer
B. Auxanometer
C. Potometer
D. Barometer (B)

Explanation : Auxanometer measures increase in plant length.

8. Growth period is mainly divided into —
A. Two phases
B. Three phases
C. Four phases
D. Six phases (B)

Explanation : Growth period has meristematic phase, elongation phase and maturation phase.

9. Cells rich in protoplasm with large nuclei are found in —
A. Meristematic phase
B. Maturation phase only
C. Senescence phase
D. Dormant seed coat (A)

Explanation : Meristematic cells divide actively and contain dense protoplasm and large nuclei.

10. Cell maturation means —
A. Cells become permanent tissues after differentiation
B. Cells only absorb water
C. Cells stop respiration
D. Cells form only seeds (A)

Explanation : In maturation phase, cells differentiate and form permanent tissues.