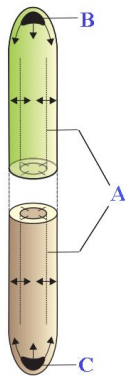


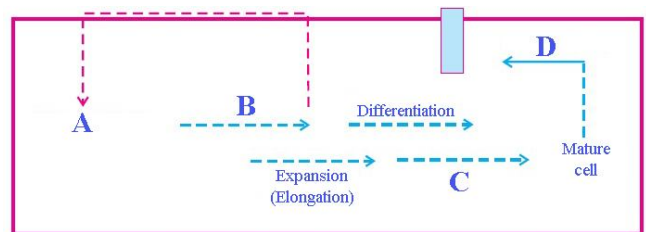
Botany Quiz (Plant Growth and Development)

01. Development consists of
 (1) Growth (2) Differentiation
 (3) **Both (1) and (2)** (4) None of these
02. All cells of the plants are descendants of
 (1) **Zygote** (2) Seeds
 (3) Gametes (4) Both (2) and (3)
03. What is the special feature of meristem?
 (1) It is present in every tissue
 (2) Its capacity is to divide
 (3) Its capacity is to self-perpetuate
 (4) **Both (2) and (3)**
04. One single maize root apical meristem can give rise to how many new cells per hour?
 (1) 17500 (2) **>17500**
 (3) <17500 (4) None of these
05. Which of the following are phases of growth period?
 (1) Meristematic phase (2) Elongation phase
 (3) Maturation phase (4) **All of these**
06. What is A, B and C in the given figure?



- (1) A–Shoot apical meristem; B–Root apical meristem; C–Vascular cambium
 (2) A–Vascular cambium; B–Root apical meristem; C–Shoot apical meristem
 (3) A–Root apical meristem; B–Vascular cambium; C–Shoot apical meristem
 (4) **A–Vascular cambium; B–Shoot apical meristem; C–Root apical meristem**

07. Slow initial growth in sigmoid growth curve is called
 (1) Log phase (2) **Lag phase**
 (3) Exponential phase (4) None of these
08. In the expression of exponential growth ($W_1 = W_0 e^{rt}$), 'e' stands for
 (1) Exponential growth rate (2) **Base of natural logarithms**
 (3) Relative growth rate (4) Change in size
09. Select the false statement from the following.
 (1) Water provides medium for enzymatic activities needed for growth
 (2) Oxygen helps in releasing metabolic energy
 (3) Nutrients are essential for growth
 (4) **Only macronutrients** are required by plant for growth
10. What is re-differentiation?
 (1) Regaining the capacity to divide
 (2) Loosing the capacity to divide
 (3) **Loosing the capacity to divide after regaining**
 (4) All of these
11. Identify A, B, C and D in the given figure.



Sequence of the developmental process in a plant cell

- (1) A–Cell division; B–Senescence; C–Plasmatic growth; D–Mature cell
 (2) **A–Meristematic cell; B–Plasmatic growth; C–Maturation; D–Senescence**
 (3) A–Mature cell; B–Maturation; C–Senescence; D–Meristematic cell
 (4) A–Maturation; B–Cell division; C–Meristematic cell; D–Differentiation
12. The example of plasticity in plant Ranunculus (Buttercup) is
 (1) Homophylly (2) Isophylly
 (3) Megaphylly (4) **Heterophylly**

13. In which of the following plant, the leaves of juvenile plant are different in shape from than those in mature plants?
 (1) Cotton (2) Coriander
 (3) Larkspur (4) **All of these**
14. Intercellular factors for plant development includes _____.
 (1) **Chemical regulators** (2) Genetic
 (3) Oxygen (4) Water
15. Observation of which plant by Charles Darwin would help in the discovery of PGR?
 (1) Larkspur (2) Buttercup
 (3) **Canary grass** (4) All of these
16. Gibberella fujikuroi caused which of the following disease in rice plants?
 (1) Foolish seeding (2) Bakanae
 (3) **Both (1) and (2)** (4) None of these
17. Which three different kinds of inhibitors were found in mid-1960s?
 (1) Inhibitor A, Abscission II and dormin
 (2) **Inhibitor B, Abscission II and dormin**
 (3) Inhibitor A, Abscission III and dormin
 (4) Inhibitor B, Abscission III and dormin
18. The only gaseous PGR is _____.
 (1) ABA (2) Kinetin
 (3) Terpenes (4) **Ethylene**
19. Synthetic as well as natural auxins are extensively used in
 (1) Agriculture (2) Horticulture
 (3) **Both (1) and (2)** (4) None of these
20. What promotes abscission of older mature leaf and fruits?
 (1) Absciscic acid (2) **Auxins**
 (3) Ethylene (4) Cytokinin
21. Decapitation is widely used for
 (1) Tea plantation (2) Hedge making
 (3) **Both (1) and (2)** (4) Flowering
22. Which of the following are common biennials?
 (1) Carrots (2) Cabbages
 (3) Sugar beet (4) **All of these**
23. To increase sugar production in sugarcane, they are sprayed with :
 (1) IAA (2) Cytokinin
 (3) **Gibberellin** (4) Ethylene
24. Monocarpic plants are those which :
 (1) Bear flowers with one ovary
 (2) **Flower once and die**
 (3) Bear only one flower
 (4) All of these
25. The term synergistic action of hormones refers to
 (1) When two hormones act together but bring about opposite effects
 (2) **When two hormones act together and contribute to the same function**
 (3) When one hormone affects more than one function
 (4) When many hormones bring about any one function
26. The pigment involved in red-far-red light interconversion is
 (1) Cytochrome (2) Xanthophyll
 (3) Lycopene (4) **Phytochrome**
27. Select the incorrect statements.
 (1) ABA acts as antagonist to gibberellin
 (2) Ethylene can act both as a promoter and an inhibitor of grown activity
 (3) Auxin and Ethylene promotes apical dominance
 (4) **ABA promotes seed germination.**
28. Which of the following is the correct sequence of the layer in a typical monocot root (from the outer surface to the pith)
 (1) Pericycle, Cortex, Endodermis, Epiblema
 (2) Epiblema, Endodermis, Cortex, Pericycle
 (3) **Epiblema, Cortex, Endodermis, Pericycle**
 (4) Epiblema, Pericycle, Cortex, Endodermis
29. In a TCA Cycle, how many NADH₂ and FADH₂ are produced respectively
 (1) **3NADH₂, 1 FADH₂** (2) 2NADH₂, 1 FADH₂
 (3) 4 NADH₂, 1 FADH₂ (4) 4 NADH₂, 2 FADH₂
30. Which kind of plants are required for uninterrupted dark period flowering?
 (1) **Short day plants** (2) Long day plants
 (3) Short night plants (4) Day Neutral plants