

MUDRA LIFE SCIENCES

VOLUME-03

PART B & C

MODEL QUESTION BANK FOR THE TOPICS:

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5. DEVELOPMENTAL BIOLOGY

UNIT-1

- 1: Gradual growth through a series of progressive changes is called
- (A) Growth
 - (B) Development
 - (C) Cleavage
 - (D) Transduction
- 2: The study of developmental changes is known as
- (A) Embryology
 - (B) Developmental biology
 - (C) Both A and B
 - (D) Chrono-biology
- 3: As a fertilized egg develops into an embryo, it undergoes
- (A) One meiotic cell division, only
 - (B) Many meiotic cell divisions
 - (C) One mitotic cell division, only
 - (D) Many mitotic cell divisions
- 4: Undifferentiated tissue from which new cells are formed, as at the tip of a stem or root.
- (A) Meristele
 - (B) Merithallus
 - (C) Meristem
 - (D) All a, b and c
- 5: Primary growth depends upon activity of
- (A) Apical meristem
 - (B) Secondary meristem
 - (C) Lateral meristem
 - (D) Vascular cambium

6: Secondary growth is made possible by the _____ which increases the girth of plant.

- (A) Primary meristem
- (B) Apical meristem
- (C) Lateral meristem
- (D) None of the above

7: In _____ plants whole body is capable of growth.

- (A) Angiosperms
- (B) Gymnosperms
- (C) Bryophyta
- (D) All of these.

8: The correct sequence of growth phases in plants is

- (A) Elongation-Formative-Maturation
- (B) Maturation-Elongation-Formative
- (C) Formative-Maturation-Elongation
- (D) Formative-Elongation-Maturation

9: During elongation phase the cells become enlarged due to

- (A) Transpiration pressure
- (B) Plasmolytic pressure
- (C) Turgor pressure
- (D) Both B and C

10: During which phase the elongated cells are modified into permanent cells.

- (A) Formative phase
- (B) Elongation phase
- (C) Both A and B
- (D) Maturation phase

11: The growth in diameter is called

- (A) Primary growth
- (B) Secondary growth
- (C) Apical growth
- (D) Intercalary growth

12: During secondary growth xylem rings are produced on the _____ side of dividing cambium.

- (A) Inner side
- (B) Outer side
- (C) Both inner and outer sides
- (D) None of these

13: During secondary growth phloem rings are produced on the _____ side of dividing cambium.

- (A) Inner side
- (B) Outer side
- (C) Both inner and outer sides
- (D) None of these

14: In a cross section of a tree or log, one of the ribbons of tissue extending radially from the pith form

- (A) Cortical rays
- (B) Necrotic rays
- (C) Medullary rays
- (D) All A, B and C

15: Most of the enzymes work optimally in between

- (A) 25° C to 37° C
- (B) 35° C to 45° C
- (C) 5° C to 20° C
- (D) 10° C to 25° C

- 16: At high temperature the rate of growth stops due to
- (A) Excessive transpiration
 - (B) Enzyme loss
 - (C) Both A and B
 - (D) All of the choices are incorrect
- 17: In plants red light favours
- (A) Elongation of cells
 - (B) Maturation of cells
 - (C) Formation of cells
 - (D) Division of cells
- 18: Generally, light influences growth by
- (A) Intensity
 - (B) Quality
 - (C) Duration
 - (D) All A, B and C
- 19: A metabolic pathway that consumes O₂, releases CO₂, generates no ATP and decreases photosynthetic output is
- (A) Photoperiodism
 - (B) Photorespiration
 - (C) Photophosphorylation
 - (D) Photoreactivation
- 20: The internal factors that influence the growth of plants are
- (A) Hormones
 - (B) Genes
 - (C) Both A and B
 - (D) None of these
- 21: _____ are parts of apical meristem which have become separated from the apex by permanent tissues.
- (A) Primary meristem
 - (B) Intercalary meristem
 - (C) Lateral meristem
 - (D) None of the above

- 22: One of the most important correlative effects in plants is
- (A) Morphogenesis
 - (B) Apical dominance
 - (C) De-differentiation
 - (D) Re-differentiation
- 23: The removal of apex releases the lateral buds from apical dominance, it is known as
- (A) Inhibitory effect
 - (B) Reciprocal effect
 - (C) Compensatory effect
 - (D) Apical effect
- 24: During the process of _____ the miniature seedling comes and enter the second phase _____.
- (A) Fertilization, Development
 - (B) Fertilization, Cleavage
 - (C) Germination, Growth
 - (D) Cleavage, Differentiation
- 25: The correct sequence of process of development after fertilization and cleavage is
- (A) Gastrulation-Organogenesis-Growth
 - (B) Organogenesis-Gastrulation-Growth
 - (C) Gastrulation-Blastulation-Growth
 - (D) Organogenesis-Morulation-Blastulation
- 26: It is series of mitotic cell division that changes zygote into multicellular embryo
- (A) Gastrulation
 - (B) Gametogenesis
 - (C) Blastulation
 - (D) Cleavage

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