

1. Development is (Pg. 239, E)  
 A) Growth  
 B) Differentiation  
 C) Growth + differentiation  
 D) Growth – differentiation

### **Paragraph 15.1**

#### **Growth**

2. Growth of living being is/are- (Pg. 240, E)  
 A) Irreversible  
 B) Increase in size  
 C) Increase in weight  
 D) All of these
3. Swelling of piece of wood when placed in water is (Pg. 240, E)  
 A) Growth but not development  
 B) Development but not growth  
 C) No growth and development  
 D) Both growth & development

### **Paragraph 15.1.1**

#### **Plant Growth Generally is Indeterminate**

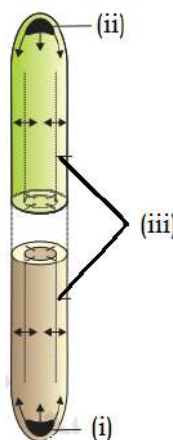
4. Plant grows (Pg. 240, E)  
 A) For a limited time in life  
 B) For a very long time in life  
 C) For a very short time in a life  
 D) For unlimited time throughout life
5. The given figure shows- (Pg. 240, M)



- A) Germination & development in bean  
 B) Germination & development in maize  
 C) Germination & development in pea  
 D) Germination & development in gram
6. Plant grows throughout the life due to- (Pg. 240, E)  
 A) Meristematic tissue  
 B) Parenchyma tissue  
 C) Epidermal tissue  
 D) More than one option is correct
7. Open form of growth involves (Pg. 240, E)

- A) Continuous division in all cells forming new set of cells which divide further necessarily.  
 B) Division in some cells forming new set of cells which do not divide further necessarily  
 C) No division at all  
 D) Division in some cells at the time of injury which forms new set of cells to heal the injury
8. Secondary growth does occur in- (Pg. 240, E)  
 A) All angiosperms and no gymnosperms  
 B) Some angiosperm and gymnosperms  
 C) No angiosperm and only gymnosperms  
 D) All angiosperm and all gymnosperms
9. Secondary growth does not mean- (Pg. 240, E)  
 A) Increase in length of plant  
 B) Increase in girth of plant  
 C) Increase in diameter in plant  
 D) Both A & C

10.



Choose the correct label-

(Pg. 241, E)

|   | (i)                   | (ii)                  | (iii)            |
|---|-----------------------|-----------------------|------------------|
| A | Shoot apical meristem | Root apical meristem  | Vascular cambium |
| B | Root apical meristem  | Shoot apical meristem | Vascular cambium |

|   |                  |                  |                 |
|---|------------------|------------------|-----------------|
| C | Shoot parenchyma | Root parenchyma  | Vascular bundle |
| D | Root parenchyma  | Shoot parenchyma | Vascular bundle |

### **Paragraph 15.1.2 Growth is Measurable**

11. Growth can be measured by measuring increase in – **(Pg. 241, E)**  
 A) Amount of protoplasm  
 B) Dry weight  
 C) Cell number  
 D) Both B & C
12. Match the column in respect with the measurement growth- **(Pg. 241, E)**

|   | Column I          |     | Column II    |
|---|-------------------|-----|--------------|
| a | Maize             | i   | Length       |
| b | Watermelon        | ii  | Surface area |
| c | Pollen tube       | iii | Cell number  |
| d | Dorsiventral leaf | iv  | Cell size    |

- A) a-iii, b-iv, c-i, d-ii  
 B) a-iii, b-ii, c-i, d-iv  
 C) a-iv, b-iii, c-i, d-ii  
 D) a-i, b-ii, c-iv, d-iii

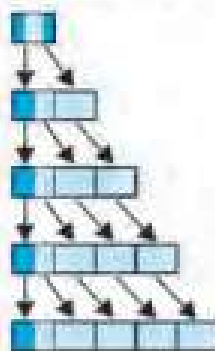
### **Paragraph 15.1.3 Phases of Growth**

13. The three phases of growth in correct order is- **(Pg. 241, E)**  
 A) Meristematic, maturation, elongation  
 B) Elongation, meristematic, maturation  
 C) Meristematic, elongation, maturation  
 D) Elongation, maturation, meristematic
14. Cells in meristematic phase of growth- **(Pg. 241, E)**  
 A) Have small nuclei  
 B) Have low plasmodesmatal connections  
 C) Have thick cell wall  
 D) Are rich in protoplasm
15. The phase of maturation lies- **(Pg. 241, E)**

- A) Proximal to cells undergoing elongation, towards the tip  
 B) Proximal to cells undergoing elongation, away from the tip  
 C) Proximal to cells of meristematic zone, away from the tip  
 D) Proximal to cells of meristematic zone, towards the tip
16. Increased vacuolation is a characteristics of – **(Pg. 242, E)**  
 A) Meristematic phase  
 B) Maturation phase  
 C) Elongation phase  
 D) All of these
17. Thickest cell wall present in – **(Pg. 242, E)**  
 A) Meristematic phase  
 B) Maturation phase  
 C) Elongation phase  
 D) Both B & C

### **Paragraph 15.1.4 Growth rates**

18. Increased growth per unit time is called **(Pg. 242, E)**  
 A) Growth index  
 B) Growth rate  
 C) Growth efficiency index  
 D) Both A & C
19. Identify the given figure **(Pg. 242, M)**



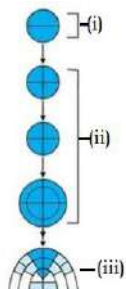
- A) Figure shows geometric growth with formula  $L_t = L_o + rt$   
 B) Figure shows geometric growth with formula  $W_1 = W_o e^{rt}$   
 C) Figure shows arithmetic growth with formula  $L_t = L_o + rt$   
 D) Figure shows arithmetic growth with formula  $W_1 = W_o e^{rt}$

20. Identify the given figures (Pg. 242, M)



- A) Figure shows geometric growth with formula  $L_t = L_0 + rt$
- B) Figure shows geometric growth with formula  $W_1 = W_0 e^{rt}$
- C) Figure shows arithmetic growth with formula  $L_t = L_0 + rt$
- D) Figure shows arithmetic growth with formula  $W_1 = W_0 e^{rt}$

21. Choose the correct option with respect to given figures of stages of embryo development (Pg. 242, M)



- A) (i) is arithmetic growth phase
- B) (i) is geometric growth phase
- C) (ii) is arithmetic growth phase
- D) (ii) is geometric growth phase

22. Choose the correct set of option for size or weight of organ against time (Pg. 243, E)

- (i)  $W_1 = W_0 e^{rt}$
- (ii)  $L_t = L_0 + rt$
- (iii) Linear growth curve
- (iv) Sigmoid growth curve
- (v) Arithmetic growth
- (vi) Geometric growth

- A) (i), (iii), (iv)      B) (ii), (iii), (vi)
- C) (i), (iv), (vi)      D) (ii), (iv), (v)

23. The three phases of sigmoid growth occur in order are – (Pg. 243, E)

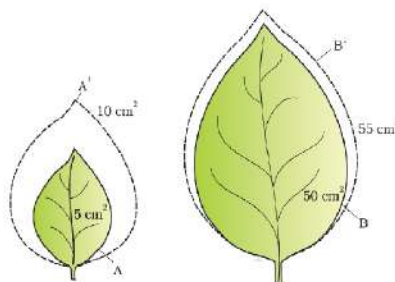
- A) Log, lag, stationary
- B) Log, stationary, lag
- C) Lag, log, stationary
- D) Lag, stationary, log

24. In the formula  $W_1 = W_0 e^{rt}$ ,  $r$  is –

(Pg. 243, E)

- A) Relative growth rate
- B) Efficiency index
- C) Ability of plant to produce new plant material
- D) All of these

25. choose the correct option – (Pg. 244, E)



- A) Absolute growth rate of A is more than that of B
- B) Absolute growth rate of B is more than that of A
- C) Relative growth rate of A is more than that of B
- D) Relative growth rate of B is more than that of A

### Paragraph 15.1.5 Conditions growth

26. The factors affecting growth can be –

(Pg. 244, E)

- A) Water, temperature, light, gravity
- B) Water, temperature, light but not gravity
- C) Water, light but not temperature & gravity
- D) Water, light, gravity but not temperature

### Paragraph 15.2 Differentiation, Dedifferentiation and Redifferentiation

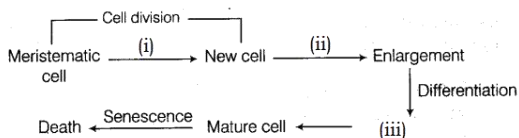
27. During differentiation (Pg. 245, E)

- A) Structural changes occur in nucleus and cytoplasm
- B) Functional changes occur in nucleus and cytoplasm

- C) Structural changes occur in cell wall and protoplasm  
 D) All of these
28. Dedifferentiation can be seen in formation of- **(Pg. 245, E)**  
 A) Intrafascicular parenchyma  
 B) Intrafascicular cambium only  
 C) Interfascicular cambium only  
 D) Entire vascular cambium
29. Read the following statements - **(Pg. 245, E)**  
 (i) Cork cambium is a layer of meristem formed from parenchyma cells  
 (ii) Intrafascicular cambium is a layer of parenchyma cells formed from meristem  
 (iii) Vascular cambium divide and produce cells that differentiate again  
 (iv) Plant growth can be determinate or indeterminate  
 (v) Final structure of cells are never determined by location of cells  
 (vi) The differentiation in plant cells are closed and dependent on position
- How many of the above statements are correct?  
 A) 3 B) 4  
 C) 5 D) 6

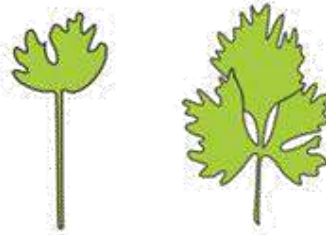
### **Paragraph 15.3** **Development**

30. identify the correct labels - **(Pg. 246, E)**

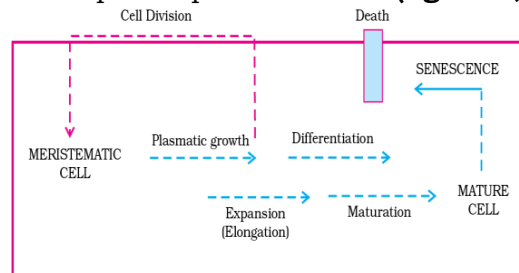


- A) (i)-Expansion, (ii)-Plasmatic growth, (iii)-Maturation  
 B) (ii)-Elongation, (i)-Plasmatic growth, (iii)-Maturation  
 C) (iii)-Elongation, (ii)-Plasmatic growth, (i)-Maturation  
 D) (iii)-Expansion, (i)-Plasmatic growth, (ii)-Maturation
31. Plasticity can be seen in - **(Pg. 246, E)**  
 A) Cotton B) Coriander  
 C) Buttercup D) All of these

32. Environmental heterophylly can be seen in - **(Pg. 246, E)**  
 A) Larkspur B) Cotton  
 C) Coriander D) Buttercup
33. The given figure show - **(Pg. 246, E)**



- A) Developmental heterophylly in buttercups  
 B) Environmental heterophylly in larkspur  
 C) Environmental heterophylly in buttercup  
 D) Developmental heterophylly in Larkspur
34. The figure shows sequence of the development process in **(Pg. 246, E)**



- A) A plant cell B) Plant tissue  
 C) Plant organs D) All of these
35. The given figure show - **(Pg. 246, E)**



- A) Developmental heterophylly in buttercups  
 B) Environmental heterophylly in larkspur  
 C) Environmental heterophylly in buttercup  
 D) Developmental heterophylly in larkspur

36. Intrinsic factors responsible for growth & development include – **(Pg. 246, E)**
- Intracellular (plant growth regulators)
  - Intercellular (genetic)
  - Intercellular (plant growth regulators)
  - More than one option is correct

## **Paragraph 15.4 Plant Growth Regulation Paragraph 15.4.1 Characteristics**

37. PGRs are – **(Pg. 247, E)**
- Small, simple, molecules of diverse chemical composition
  - Large, simple molecules of diverse chemical composition
  - Small, complex molecules of diverse chemical composition
  - Large, complex molecules of diverse chemical composition
38. An example of adenine derivative PGR **(Pg. 247, E)**
- IAA
  - Kinetin
  - ABA
  - Gibberellic acid
39. Gibberellic acid is – **(Pg. 247, E)**
- Indole compound
  - Adenine compound
  - Carotenoid derivative
  - Terpene derivative
40. Absciscic acid is – **(Pg. 247, E)**
- Indole compound
  - Adenine compound
  - Carotenoid derivative
  - Terpene derivative
41. Kinetin is – **(Pg. 247, E)**
- Indole compound
  - Adenine compound
  - Carotenoid derivative
  - Terpene derivative
42. A gaseous PGR is **(Pg. 247, E)**
- ABA
  - Ethylene
  - GA<sub>3</sub>
  - IAA
43. The PGRs that play important role in plant responses to wounds are – **(Pg. 247, E)**
- Auxin
  - Cytokinin
  - Gibberellin
  - Absciscic acid
44. PGR Ethylene can fit into – **(Pg. 247, E)**

- Group of plant growth promoters
- Group of plant growth inhibitors
- Both the groups of promoter & inhibitors but mostly inhibitor
- Both the groups of promoter and inhibitors but mostly promoter

## **Paragraph 15.4.2 The Discovery of PGR**

45. Discovery of how many out of 5 major PGRs was accidental? **(Pg. 247, E)**
- 2
  - 1
  - 3
  - 5
46. Match the scientist with the plant they worked on – **(Pg. 248, M)**

|   | Column I                 |     | Column II    |
|---|--------------------------|-----|--------------|
| a | F.W.Went                 | i   | Canary grass |
| b | E. Kurosawa              | ii  | Avena(oat)   |
| c | Charles & Francis Darwin | iii | Tobacco      |
| d | F.S koog                 | iv  | Rice         |

- a-iv, b-ii, c-iii, d-i
  - a-iii, b-i, c-ii, d-iv
  - a-ii, b-iv, c-i, d-iii
  - a-i, b-iii, c-iv, d-ii
47. Cousins confirmed the release of a volatile substance (i), from ripened (ii) that hastened the ripening of stored unripe (iii). **(Pg. 247, E)**
- (i)-ABA, (ii)-banana, (iii)-orange
  - (i)-ABA, (ii)-orange, (iii)-banana
  - (i)-C<sub>2</sub>H<sub>4</sub>, (ii)-banana, (iii)-orange
  - (i)- C<sub>2</sub>H<sub>4</sub>, (ii)- orange, (iii)-banana
48. Match the PGR with the plants which played role in their discovery – **(Pg. 247, M)**

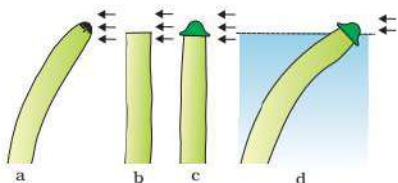
|   | Column I    |     | Column II |
|---|-------------|-----|-----------|
| a | Auxin       | i   | Tobacco   |
| b | Gibberellin | ii  | Rice      |
| c | Cytokinin   | iii | Orange    |
| d | Ethylene    | iv  | Avena     |

- a-iii, b-i, c-ii, d-iv
- a-iv, b-ii, c-i, d-iii

- C) a-i, b-iii, c-iv, d-ii  
D) a-ii, b-iv, c-iii, d-i
49. Absciscic acid was independently discovered by three different researchers and named as – **(Pg. 247, E)**  
A) Inhibitor-A, abscission-III, dormin  
B) Inhibitor-C, abscission-II, dormane  
C) Inhibitor-B, abscission-II, dormin  
D) Inhibitor-B, abscission-II, dormane
50. The term kinetin was given by – **(Pg. 248, E)**  
A) Muller et al                      B) Kurosawa et al  
C) Cousins et al                    D) None of these
51. The foolish seedling disease of rice is caused by – **(Pg. 248, E)**  
A) Nematode                      B) Bacteria  
C) Fungus                          D) Virus
52. Auxin was isolated by (i) from (ii) – **(Pg. 248, E)**

|   | (i)            | (ii)                      |
|---|----------------|---------------------------|
| A | Francis Darwin | Wleoptile of oat seedling |
| B | Francis Darwin | Cleoptile of canary grass |
| C | F.W. Went      | Cleoptile of oat seedling |
| D | F.W. Went      | Cleoptile of canary grass |

53. The figure shows – **(Pg. 248, E)**



- A) Experiment to show that tip of coleoptile produces gibberelin  
B) Experiment to show that tip of coleorhiza produces gibberelin  
C) Experiment to show that tip of coleorhiza produces auxin  
D) Experiment to show that tip of coleoptile produces auxin

### **Paragraph 15.4.3.1**

#### **Auxin**

54. Auxin was first isolated from – **(Pg. 248, E)**  
A) Xylem sap                      B) Phloem sap  
C) Human urine                  D) Root exudates
55. Synthetic auxins – **(Pg. 248, E)**  
A) IAA                                  B) IBA  
C) NAA                                D) Both A & C
56. Auxin isolated from plant – **(Pg. 248, E)**  
A) NAA                                B) IAA  
C) 2, 4-D                            D) Both A & B
57. Auxins are generally produced by – **(Pg. 248, E)**  
A) Growing apex of root & shoot  
B) Epidermal tissue of shoots only  
C) Xylem secondary cells  
D) Endodermal cells of roots & shoot
58. Assertion: Auxin is used in plant propagation widely.  
Reason: Auxin initiate rooting.  
Choose the correct option - **(Pg. 248, M)**  
A) Both Assertion and Reason are correct, and Reason is correct explanation of Assertion  
B) Both Assertion and Reason are correct, but Reason doesn't explain Assertion  
C) Assertion is correct but Reason is wrong  
D) Both Assertion and Reason are incorrect
59. Auxin promote – **(Pg. 248, E)**  
A) Rooting in stem cutting  
B) Flowering in pineapple  
C) Bolting in beet  
D) Both A & B
60. Statement-I Auxin prevent fruit and leaf drop at early stage  
Statement-II Auxin promote abscission of older mature leaves & fruits  
Choose the appropriate option – **(Pg. 248, M)**  
A) Statement-I is correct and Statement-II is incorrect  
B) Statement-I is incorrect and Statement-II is correct  
C) Both Statement-I & Statement-II are correct  
D) Both Statement-I & Statement-II are incorrect



61. Auxin – **(Pg. 248, E)**  
 A) Promotes apical dominance  
 B) Prevent apical dominance  
 C) Both promote & prevent apical dominance based on condition  
 D) Can't say
62. In tea plantation and hedge -making **(Pg. 248, E)**  
 A) Lateral buds are removed  
 B) Shoot tips are removed  
 C) Root tips are removed  
 D) None of these
63. Auxin – **(Pg. 248, E)**  
 A) Induces parthenocarpy  
 B) Act as herbicide  
 C) Help in cell division  
 D) All of these
64. 2, 4-D is used to – **(Pg. 248, E)**  
 A) Kill gymnosperms usually  
 B) Kill dicot usually  
 C) Kill monocot usually  
 D) Both A & B

### **Paragraph 15.4.3.2** **Gibberellins**

65. Gibberellins are **(Pg. 249, E)**  
 A) Promotory PGR  
 B) Inhibitory PGR  
 C) Neither promotory nor inhibitory PGR  
 D) Both promotory and inhibitory PGR
66. Which of the following statements are incorrect – **(Pg. 249, E)**  
 A) There are more than 100 gibberellins reported  
 B) GA<sub>3</sub> was one of the gibberellins to be discovered  
 C) All GA are basic  
 D) GAs are also reported in fungi
67. Gibberellins is used in grapes for – **(Pg. 249, E)**  
 A) Increase in length of stalk  
 B) Increase in girth of stalk  
 C) Decrease in length of stalk  
 D) Decrease in girth of stalk
68. Gibberellins – **(Pg. 249, E)**  
 A) Promotes senescence  
 B) Delay senescence

- C) Neither promote not delay senescence  
 D) Both promote & delay senescence based on situation
69. Assertion: Spraying gibberellins on fruits extend its market period  
 Reason: Gibberellins delays senescence  
 Choose the best option – **(Pg. 249, M)**  
 A) Both assertion & reason are correct and reason is correct explanation of assertion  
 B) Both assertion & reason are correct but reason is not explanation of assertion  
 C) Assertion is correct but reason is wrong  
 D) Both assertion & reason are in correct
70. Which of these are correct – **(Pg. 249, E)**  
 A) ABA shows the malting process in brewing industry  
 B) ABA speeds the malting process in brewing industry  
 C) GA<sub>3</sub> slows the malting process in brewing industry  
 D) GA<sub>3</sub> speeds the malting process in brewing industry
71. Gibberellins is used to improve yields of – **(Pg. 249, E)**  
 A) Apple  
 B) Grape  
 C) Sugarcane  
 D) All of these
72. Assertion: Juvenile conifers are sprayed with GA  
 Reason: GA delays senescence and malting period  
 Which of the given options are correct? **(Pg. 249, E)**  
 A) Both assertion & reason are correct and reason is correct explanation of assertion  
 B) Both assertion & reason are correct but reason is not explanation of assertion  
 C) Assertion is correct but reason is wrong  
 D) Both assertion & reason are in correct
73. Bolting is – **(Pg. 249, E)**  
 A) Yellowing of leaves  
 B) Node elongation prior to flowering  
 C) Early maturing and seed production  
 D) None of these
74. GA promote bolting in – **(Pg. 249, E)**  
 A) Beet  
 B) Cabbage

- C) Plants with rosette habit  
D) All of these

### **Paragraph 15.4.3.3**

#### **Cytokinins**

75. Cytokinins were discovered as – **(Pg. 249, E)**  
A) Kinin B) Kinetin  
C) Kinesin D) Zentin
76. Kinetin is a modified form of – **(Pg. 249, E)**  
A) Purine – guanine  
B) Pyrimidine – cytosine  
C) Purine – adenine  
D) Pyrimidine – thymine
77. Kinetin was discovered from – **(Pg. 249, E)**  
A) Autoclaved herring egg DNA  
B) Human urine  
C) Corn kernel  
D) None of these
78. Read the following statements regarding cytokinin – **(Pg. 249, E)**  
i) Kinetin occurs naturally in plants  
ii) Kinetin was discovered from coconut milk  
iii) Zeatin does not occur naturally in plants  
iv) Zeatin was isolated from human DNA  
How many of the statements are incorrect –  
A) 1 B) 2  
C) 3 D) 4
79. Natural cytokinin may be synthesized in – **(Pg. 249, E)**  
A) Root apex  
B) Developing shoot buds  
C) Young fruits  
D) More than one option is correct
80. Cytokinin helps to produce – **(Pg. 249, E)**  
A) Chloroplast in leaves  
B) Elongation in sugarcane  
C) Synchronized fruit set in pineapple  
D) Flowering in pineapple

### **Paragraph 15.4.3.4**

#### **Ethylene**

81. Ethylene is synthesized in large amounts by – **(Pg. 250, E)**

- A) ripening fruit  
B) Tissues undergoing senescence  
C) Newly developed leaves  
D) More than one option is correct

82. Ethylene causes (i) growth of seedling, swelling of axis and apical hook formation in (ii) seedling **(Pg. 250, E)**

|    | (i)        | (ii)    |
|----|------------|---------|
| A) | Horizontal | Monocot |
| B) | Vertical   | Dicot   |
| C) | Horizontal | Dicot   |
| D) | Vertical   | Monocot |

83. Ethylene promotes – **(Pg. 250, E)**  
A) Senescence and abscission of flowers  
B) Senescence but not abscission of flowers  
C) Abscission of flowers but not senescence  
D) Neither senescence nor abscission of flowers
84. Ethylene in fruits causes – **(Pg. 250, E)**  
A) Rise in rate of respiration called respiratory anti-climactic  
B) Rise in rate of respiration called respiratory climactic  
C) Fall in rate of respiration called respiratory anti-climactic  
D) Fall in rate of respiration called respiratory climactic
85. Ethylene – **(Pg. 250, E)**  
A) Promotes seed and bud dormancy  
B) Promotes only seed dormancy  
C) Promotes only bud dormancy  
D) None of these
86. Statement-I Ethylene promotes internode/petiole elongation in deep water rice plants  
Statement-II ethylene helps upper part of shoot to remain above water.  
Choose the appropriate option – **(Pg. 250, E)**  
A) Statement-I is correct and Statement-II is incorrect  
B) Statement-I is incorrect and Statement-II is correct



- C) Statement-I and Statement-II are correct  
 D) Statement-I and Statement-II are incorrect
87. Ethylene – **(Pg. 250, E)**  
 A) Promotes root hair formation and increase in absorption surface  
 B) Demotes root hair formation and increase in absorption surface  
 C) Promotes root hair formation and decrease in absorption surface  
 D) Demotes root hair formation and decrease in absorption surface
88. Ethylene initiates – **(Pg. 250, E)**  
 A) Flowering in pineapple  
 B) Flowering in mango  
 C) Synchronizing fruit-set in pineapple  
 D) All of these
89. Most widely used source of ethylene – **(Pg. 250, E)**  
 A) Is ethepene  
 B) Hasters fruit ripening in tomato and apple  
 C) In aqueous solution is absorbed on the plant roots  
 D) More than one option is correct
90. Ethylene promotes – **(Pg. 250, E)**  
 A) Female flowers in cucumber, increasing the yield  
 B) Female flowers in cucumber, decreasing the yield  
 C) male flowers in cucumber, increasing the yield  
 D) male flowers in cucumber, decreasing the yield

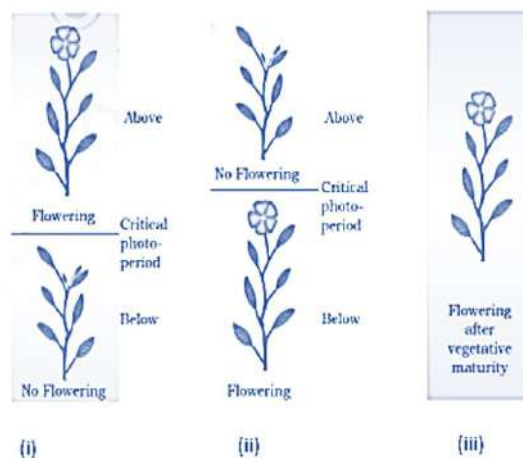
### **Paragraph 15.4.3.5** **Abscisic Acid**

91. ABA is – **(Pg. 250, E)**  
 A) Inhibitor of plant growth and metabolism  
 B) Inhibitor of plant growth but not metabolism  
 C) Inhibitor of plant metabolism but not growth  
 D) Inhibitor of neither plant growth nor metabolism

92. ABA – **(Pg. 250, E)**  
 A) Inhibit seed germination  
 B) Promote seed dormancy  
 C) Inhibit seed dormancy  
 D) Both A & B \
93. ABA is called stress hormone because **(Pg. 250, E)**  
 A) It causes stress to plant  
 B) It is released during stress in plant  
 C) It helps plant to fight stress conditions  
 D) More than one option is correct
94. ABA stimulates – **(Pg. 251, E)**  
 A) Stomata opening for more CO<sub>2</sub> exchange  
 B) Stomata closure to decrease transpiration  
 C) Stomata opening to cause transpiration & calling effect  
 D) Both A & C
95. In most situation, ABA acts as an antagonist to- **(Pg. 251, E)**  
 A) Auxin  
 B) GA  
 C) Cytokinin  
 D) Ethylene

### **Paragraph 15.5** **Photoperiodism**

96. Identify the correct labels – **(Pg. 251, E)**



|    | (i)            | (ii)              | (iii)           |
|----|----------------|-------------------|-----------------|
| A) | Long day plant | Day neutral plant | Short day plant |

|    |                 |                   |                   |
|----|-----------------|-------------------|-------------------|
| B) | Short day plant | Day neutral plant | Long day plant    |
| C) | Long day plant  | Short day plant   | Day neutral plant |
| D) | Short day plant | Long day plant    | Day neutral plant |

97. Read the given statements – **(Pg. 251, E)**  
Statement-I Some plants require a periodic exposure to light to include flowering  
Statement-II Some plants are able to measure the duration of exposure to light  
Choose the correct statements –  
A) Both statements are correct and are about photoperiodism  
B) One of the statements is correct about photoperiodism  
C) Both statements are correct and is about vernalization  
D) One of the statements is correct about vernalization
98. For day neutral plants, there is **(Pg. 252, E)**  
A) No correlation between light duration and flowering  
B) Direct correlation between light duration and flowering  
C) Indirect correlation between light duration and flowering  
D) Direct correlation between light intensity and flowering
99. In photoperiodism – **(Pg. 252, E)**  
A) Duration of light period matters only  
B) Duration of dark period matters only  
C) Duration of light and dark period matters  
D) Duration of light or dark period doesn't matter
100. Photoperiods are perceived by – **(Pg. 252, E)**  
A) Shoot apices  
B) Flowering apices  
C) Nodal buds

D) Leaves

## **Paragraph 15.6** **Vernalization**

101. Vernalization is – **(Pg. 252, E)**  
A) Quantitative dependence of flowering on low temperature  
B) Qualitative dependence of flowering on low temperature  
C) Quantitative dependence of flowering on high temperature  
D) A and B are correct
102. Vernalization can be seen in – **(Pg. 252, E)**  
A) Spring varieties of rice  
B) Spring varieties of wheat  
C) Winter varieties of rice  
D) Winter varieties of wheat
103. Vernalization is also seen in – **(Pg. 252, E)**  
A) Biennials like – sugarbeet  
B) Biennials like maize  
C) Perennials like sugarbeet  
D) Perennials like maize

## **Paragraph 15.7** **Seed Dormancy**

104. Some seeds which do not germinate even when external conditions are favorable, are understood to be going through – **(Pg. 252, E)**  
A) Dormancy controlled by external environment  
B) Dormancy controlled endogenously  
C) Dormancy controlled by conditions within the seed  
D) More than one option is correct
105. Chemical inhibitions of germination are – **(Pg. 252, E)**  
A) Abscissic acid  
B) Phenolic acid  
C) Para-ascorbic acid  
D) All of these
106. Germination may not occur due to – **(Pg. 252, E)**  
i) Hard seed coat  
ii) Immature embryo  
iii) Chemical inhibitors  
iv) Harsh environment  
How many of above are correct?

- A) 1                      B) 2  
C) 4                      D) 3
107. Seed coat dormancy is broken by –  
**(Pg. 252, E)**
- A) Mechanical abrasions  
B) Microbial actions in gut of animals  
C) Certain chemicals

- D) More than one option is correct
108. Effects of inhibitory substances on dormancy is removed by application of certain chemicals are – **(Pg. 253, E)**
- A) Auxin                      B) Gibberellic acid  
C) Cytokinin                D) ABA

NEET MBBS DOCTORS

## ANSWER KEY: PLANT GROWTH AND DEVELOPMENT

| Q   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9  | 10  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|
| Ans | C   | D   | C   | D   | A   | A   | A   | B   | A  | B   |
| Q   | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19 | 20  |
| Ans | D   | A   | C   | D   | B   | C   | B   | B   | C  | B   |
| Q   | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29 | 30  |
| Ans | D   | C   | C   | D   | C   | A   | C   | C   | A  | B   |
| Q   | 31  | 32  | 33  | 34  | 35  | 36  | 37  | 38  | 39 | 40  |
| Ans | D   | B   | D   | A   | A   | D   | A   | B   | D  | C   |
| Q   | 41  | 42  | 43  | 44  | 45  | 46  | 47  | 48  | 49 | 50  |
| Ans | B   | B   | D   | C   | D   | C   | D   | B   | C  | D   |
| Q   | 51  | 52  | 53  | 54  | 55  | 56  | 57  | 58  | 59 | 60  |
| Ans | C   | D   | D   | C   | D   | B   | A   | B   | D  | C   |
| Q   | 61  | 62  | 63  | 64  | 65  | 66  | 67  | 68  | 69 | 70  |
| Ans | A   | B   | D   | B   | A   | C   | A   | B   | B  | D   |
| Q   | 71  | 72  | 73  | 74  | 75  | 76  | 77  | 78  | 79 | 80  |
| Ans | C   | C   | D   | D   | B   | C   | D   | D   | D  | A   |
| Q   | 81  | 82  | 83  | 84  | 85  | 86  | 87  | 88  | 89 | 90  |
| Ans | D   | C   | A   | B   | D   | C   | A   | D   | A  | A   |
| Q   | 91  | 92  | 93  | 94  | 95  | 96  | 97  | 98  | 99 | 100 |
| Ans | A   | D   | D   | B   | B   | C   | A   | A   | C  | D   |
| Q   | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 |    |     |
| Ans | D   | D   | A   | D   | D   | C   | D   | B   |    |     |