



# **BIOLOGY**

# **BOOKS - DINESH PUBLICATION ENGLISH**

# Plant Growth and Movements

# Mcq

1. An excised leaf does not turn yellow if it is induced to root this

is attributed to sythesis in root of or Leaf aging is retared by

Or

The cut flowers and vegetable can be kept be fresh a long period

by hios plant horemone

A. Ethylene

**B.** Gytokinins

C. Gibberellins

D. Auxins.

Answer: B



# 2. Which amongst the following is a natural growth regulator

A. NAA

B. 2, 4-D

C. Benzaldehyde

D. Ethylene.

Answer: D



- 3. The maximum growth rate is observed during
- (a) lag phase
- (b) log phase
- (c) stationary phase
- (d) senescence
  - A. Lag phase
  - B. Steady phase
  - C. Log phase
  - D. Senescent phase.

#### Answer: C

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4. The growth of plants differs from growth of animals in being

A. Localised

B. Diffused

C. Localised and diffused

D. None of the above.

Answer: A

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5. Ethylene is mainly responsible for

A. Formation of flower

B. Formation of root hairs

C. Ripening of fruits

D. Formation of fruit.

#### Answer: C



6. Rosette habit of cabbage can be reversed by the application

of

A. GA

B. IAA

C. ABA

D. CK.

Answer: A

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# 7. Growth is a

A. Reversible increase in size

B. Reversible increase in shape

C. Irreversible increase in size

D. None of the above.

#### Answer: C



## 8. Bakanae disease is caused by

## A. Fungus

## B. Alga

C. Bacterium

D. Virus.

Answer: A

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9. The terms "vernalisation" was coined by

A. Garner and Allard

B. Darwin

C. Geoffery

D. Lysenko.

Answer: D



10. Gibberellin was first extracted from

A. Coleoptile tip

B. Root tip

C. Fungus

D. Bacterium.

Answer: C

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11. Substances which originate at the tip of the stem and control

growth elsewhere are

A. Enzymes

**B.** Hormones

C. Vitamins

D. None of the above.

#### **Answer: B**



# 12. An example of short day plant is

A. Tomato

**B.** Sunflower

C. Cotton

D. Potato.

Answer: d



13. The long-day plant is

A. Tomato

B. Potato

C. Cotton

D. Spinach.

Answer: D

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14. The day neutral plant is

A. Tobacco

B. Tomato

C. Wheat

D. Oat.

Answer: B



# **15.** The synthesis of amlyase in certain cereals is stimulated by

A. GA

B. IAA

C. CK

D. ABA.

Answer: A



16. Plant growth is

A. Irreversible

B. Increase in size

C. Localised

D. All the above.

Answer: D

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17. Plant response to environment is mainly through

A. Induction of dormancy

- B. Abscission of parts
- C. Synthesis of pigments
- D. Growth.

#### Answer: D



**18.** Darwin and Darwin discovered that Canary Grass coleoptile bends towards light only when

A. It is 5 cm long

B. The seedling is growing in blue light

C. Coleoptile tip is intact and exposed to light

D. Nights are cooler.

## Answer: C

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19. The discovery, that during light induced bending of stem the

apex produces a diffusible chemical, was made by

A. Charles Darwin and Franics Darwin

B. Boysen-Jensen and Paal

C. Went

D. Van Overbeek.

Answer: B

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20. Etiolation is characterised by

A. Slender yellowish stems

B. Small yellowish leaves

C. Subterminal hook

D. All the above.

Answer: D

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**21.** In excess,  $CO_2$ 

A. Accelerates growth

B. Does not influence growth

C. Inhibits growth

D. Slows down growth.

Answer: C



22. Which one regulates plant growth?

A. Commensalism

B. Climate

C. Hormones

D. Both B and C.

Answer: D

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# 23. High C/N ratio produces

A. Softer tissues

- B. More mechanical tissues
- C. More growth hormones
- D. Growth inhibitors.

#### Answer: B



24. Which one is not a growth promoter ?

A. ABA

B. GA

C. IAA

D. CK.

Answer: A



25. Crescograph was prepared by

A. Bose

B. Pfeffer

C. Ganong

D. Dixon.

Answer: A

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26. Optimum growth occurs in

A. Blue light

B. Red light

C. White light

D. Green light.

Answer: C

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27. A long-short day plant is

A. Bryophyllum

B. Tomato

C. Potato

D. Cucumber.

Answer: A

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28. DNP is

A. Cestrum

B. Cucumber

C. Potato

D. Radish.

Answer: B

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29. Major function CK is to

A. Mobilise nutrients and prevent senescence

**B.** Mobilise nutrients

C. Prevent senescene

D. Produce IAA.

Answer: A

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30. Growth promoter hormones are

A. IAA, ABA and CK

B. IAA, GA and ABA

C. IAA, GA and CK

D. ABA, CK and GA.

Answer: C



**31.** Hormone involved in inhibition of growth is

A. ABA

B. Ethylene

C. None of the above

D. Both A and B.

Answer: D

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32. Cytokinins are mostly produced in

A. Shoot apex

B. Root apex

C. Young leaves

D. Lateral buds.

Answer: B

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33. Cytokinins

A. Induce cell division and inhibit ageing

B. Maintain dormancy

C. Induce abscission

D. Inhibit cell division.

Answer: A

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34. Removal of apical bud makes the plant

A. Bushy

B. Grow rapidly

C. Grow slowly

D. Dormant.

Answer: A

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**35.** In organs of plants there is a variation in rate of growth. It is first slow, then accelerated upto maximum and slows down to stand still. The period of vigorous growth is known as

A. Lag phase

B. Period of growth

C. Grand period of growth

D. Log phase.

#### Answer: D

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36. Bioassary for auxin is

A. Dwarf maize test

- B. Avena curvature test
- C. Cell division test
- D. Green leaf test.

#### Answer: B



## 37. 2, 4-D stands for

- A. 2, 4-Dichlorophenoxy Acetic Acid
- B. 2, 4-Dichloro Butyric Acid
- C. 2, 4-Dichloronaphthoxy Acetic Acid
- D. 2, 4-Dichloronaphthalene Acetic Acid.

Answer: A



38. Scientist who first isolated cytokinin was

A. White

B. Skoog

C. Letham

D. Miller.

Answer: D

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**39.** Bioassay for gibberellin is

A. Avena curvature test

B. Seed dormancy test

C. Dwarf maize test.

D. Green leaf test.

#### Answer: C



# 40. Internodal elongation is stimulated by

A. Auxin

B. Gibberellic acid

C. Cytokinin

D. Abscisic acid.

Answer: B



**41.** The growth hormone, Gibberellin, was discovered by

A. Yabuta and Sumiki

B. Dutrochet and Dolk

C. Donoho and Walker

D. Hashimoto and Rappaport.

Answer: A

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42. Delay in senescence is caused by the spray of

B. GA

C. Cytokinin

D. ABA.

Answer: C



43. Cytokinins are generally

A. Acids

**B.** Aminopurines

C. Phenols

D. Glucosides.

Answer: B



# 44. The response of plants to light was first of all discovered by

A. J.B Lamarck

B. Darwin

C. Thimann

D. F.W. Went.

Answer: B

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45. Apples are generally wrapped in waxed paper to

(a)prevent sunlight for changing its colour

(b)prevent aerobic respieration by checking the netry of

(c)prevent ethylene formation due to injury

(d)make the apples look attractive

A. Prevent sunlight from changing its colour

B. Prevent aerobic respiration by checking the entry of

oxygen

- C. Prevent ethylene formation that hastens ripening
- D. Make the apples look costly.

#### Answer: C

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46. Seedless tomatoes are produced by

A. Supplying radioactive compounds

B. Spraying hormones on flowers

C. Propagating tomato plants from cuttings.

D. Growing tomato plants in mineral solution.

#### **Answer: B**



## 47. Avena coleoptile test detects the presence of

A. GA

B. ABA

C. IAA

D. NAA.

Answer: C



48. The term 'Chromatin was coined by

A. flemming

B. Klebs

C. Yabuta

D. Kogl and Haagen-Smit.

Answer: A

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49. Hormone involved in breaking dormancy of winter buds is

A. Ethylene

B. Gibberellin

C. Auxin

D. Cytokinin.

Answer: B



50. Rapid growth of flowering axis in many plants is caused by

A. Lower level of abscisic acid

B. Higher level of auxin

C. Higher level of gibberellin

D. Lower level of auxin.

Answer: C



**51.** Differentiation of callus requires a specific ratio of two hormones

A. Auxin and gibberellin

B. Auxin and abscisic acid

C. Gibberellin and abscisic acid

D. IAA and cytokinin.

Answer: D

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52. Ferulic acid, coumarin and hesperidin are
A. Secondary plant products

**B.** Hormones

C. Enzymes

D. Vitamins.

Answer: A

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53. Gibberellins take part in

A. Bolting of rosette plants

B. Replacing long day requirement

C. Overcoming genetic dwarfism

D. All the above.

# Answer: D Watch Video Solution

**54.** A decapitated plant exposed to unilateral light

A. Bends away from source of illumination

B. Bends towards the source of light

C. Shows zigzag curvature

D. Does not show bending movement.

Answer: D

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55. Correct sequence of cellular growth stage is

A. Cell division  $\rightarrow$  Cell differentiation  $\rightarrow$  Cell elongation

B. Cell differentiation  $\rightarrow$  Cell division  $\rightarrow$  Cell elongation

C. Cell elongation  $\rightarrow$  Cell division  $\rightarrow$  Cell differentiation

D. Cell division  $\rightarrow$  Cell elongation  $\rightarrow$  Cell differentiation.

#### Answer: D

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56. Correct sequence of different stages of development is

A. Fruiting  $\rightarrow$  Flowering  $\rightarrow$  Juvenility  $\rightarrow$  Germination

B. Germination  $\rightarrow$  Juvenility  $\rightarrow$  Flowering  $\rightarrow$  Fruiting

C. Flowering  $\rightarrow$  Fruiting  $\rightarrow$  Juvenility  $\rightarrow$  Germination

D. Juvenility  $\rightarrow$  Flowering  $\rightarrow$  Fruiting  $\rightarrow$  Germination.

# Answer: B

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57. Exponential growth is shown during

A. Lag phase

B. Log phase

C. Maturation phase

D. Senescence phase.

Answer: B



**58.** Name the scientist who discovered that decapitated coleoptile would resume photo-sensitivity and growth if severed tip is reattached through a gelatin disc.

A. Darwin

B. Van Overbeek

C. Boyson Jensen

D. Paal.

Answer: C

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**59.** During wall enlargement new wall materials are inserted amongst the older ones. The phenomenon is

A. Accretion

**B.** Integration

C. Intussusception

D. Interpolation.

Answer: C

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60. Temperature range for plant growth is

A.  $20^\circ~-35^\circ$ 

B.  $0^\circ\,-\,35^\circ\,C$ 

C.  $10^\circ~-50^\circ$ 

D.  $0^\circ\,-\,20^\circ\,C$ 

## Answer: B

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61. Apical dominance in higher plants is due to

A. C/N ratio

B. Photoperiodism

C. Phototropism

D. Auxin-cytokinin balance.

Answer: D

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62. Growth of a shoot or a root involves

A. Cell enlargement

B. Cell division

C. Cell differentiation

D. All the above.

Answer: D

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63. Hormone involved in the formation of winter buds

A. GA

B. CK

C. ABA

D. Ethylene.

# Answer: C Watch Video Solution 64. Leaf abscission is prevented by A. Gibberellin B. Ethylene C. Abscisic acid D. Auxin.

Answer: D

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65. Leaf abscission is promoted by

A. Ethylene

B. Abscisic acid

C. Cytokinin

D. Tryptophan.

Answer: A

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66. Leaf fall occurs when

A. Auxin content is more in lamina than in the stem

B. Auxin content is low in the lamina as compared to stem

C. Abscisic acid is formed

D. Morphactins are produced.



67. It will not be any advantage to produce seedless frutis in

A. Mangoes

B. Watermelons

C. Pomergranate

D. Oranges.

Answer: C



68. If auxin concentration is increased in plant roots, the water

absorption will

A. Increase

B. Decrease

C. Remain the same

D. None.

Answer: A

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69. Cell mitosis is induced by

A. Colchicine

B. Gibberellic acid

C. Nitrosoguanidine

D. Kinetin.

Answer: D

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70. Chyrsanthemums flower in winter because

A. They are short day plants

B. They required low temperature treatment

C. They are long day plants

D. Both A and B.

Answer: D



**71.** Gibberellic acid has been successfully employed to induce flowering

(a) In short day plants under long day conditions

(b) In long day plants under short day conditions

(c) In some short day and long day plants

(d) In neither short day nor long day plants

A. In short day plants under long day conditions

B. In long day plants under short day conditions

C. In all plants

D. None of the above.

Answer: B

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**72.** Plants which daily require shorter period of darkness for flowering are called

A. Short day plants

B. Long day plants

C. Normal day plants

D. Ephemeral plants

Answer: B

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73. Photoperiodism is associated with

A. Chlorophyll

B. Florigen

C. Auxin

D. Gibberellin.

Answer: B

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74. Hormone responsible for vernalization is

A. Florigen

B. Colchicine

C. Abscisin

D. Vernalin

Answer: D



75. Lettuce seeds germinate only when

A. Red light is available

B. Blue light is available

C. Green light is available

D. They are sown deep in the soil.

Answer: A



**76.** Which of the following is required for the formation of flowers in the plants?

A. Adequate oxygen

- B. Definite photoperiod
- C. Adequate manure
- D. Adequate water and mineral.

#### **Answer: B**



# 77. Kinetin like properties are present in

A. Pineapple

B. Soyabean

C. Groundnut

D. Coconut milk.

Answer: D



78. Auxin inhibits growth in

A. Stem

B. Roots

C. Leaves

D. Flowers.

Answer: A

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79. Apples growing on tree can have larger than normal size by

A. Thinning of blossoms

**B.** Defoliation

C. Decapitation of stem apex

D. Applying of hormones.

#### Answer: D



# 80. An Apple tree can be made to bear larger sized fruits by

A. Decapitation

**B. Defoliation** 

C. Dehydration

D. Thinning of blossom.

Answer: D



81. Fruit drop occurs when fruit has

A. No auxin as in the stem

B. Less auxin as compared to stem

C. More auxin than the one present in the stem

D. Auxin concentration equal to that of stem.

Answer: B

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82. Auxins does not increase the

A. The plasticity of cell walls

B. The rate of photosynthesis

C. The uptake of water by cells

D. Rate of respiration.

#### **Answer: B**

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**83.** Induction of rooting in stem cutting would be most beneficial in

A. Marchantia

B. Wheat

C. Cuscuta

D. Bougainvillea.

Answer: D
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<b>84.</b> Weed killers have properties similar to
A. Hormones
B. Enzymes
C. Insecticides
D. Vitamins.
Answer: A



**85.** In Red  $(P_x)$  and Far-red  $\left(P_{fx}\right)$  (given alternately) responses of plants, it is the

A. First treatment that is effective

B. Middle treatment that is effective

C. Last treatment that is important

D. Sum total of all treatments that counts.

Answer: C

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86. Germination of some seeds is promoted by

A. Green light

B. Red light

C. Far-red light

D. Blue light.

Answer: B

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87. In short day plants, flowering is induced by

A. Auxins

B. Gibberellins

C. Cytokinins/ABA

D. Ethylene.

Answer: C



88. Flowering in Pineapple is promoted by

A. GA

B. IAA

C. Ethylene

D. Both B and C.

Answer: D

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89. A decapitated plant does not bend towards light because

A. The root sends a message to shoot apex to do so

B. There is accumulation of growth hormones at the cut end

C. The hormone responsible for bending is not available

D. Growth inhibitors are formed.

#### Answer: C

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90. Low temperture treatment of some semi-germinated seeds

for some period ofter induces subsequently quicker flowering in

plants. This process is called

A. Vernalization

B. Thermolysis

C. Wintering

D. Devernalization

## Answer: A

**91.** Cytokinins have the ability to

A. Induce morphogenesis

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B. Substitute cold treatment

C. Convert dwarf plants to tall plants

D. None of the above.

Answer: A

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**92.** Which one of the following is geseous growth regulator?

A. IAA

B. NAA

C. IBA

D. Ethylene.

Answer: D

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**93.** The movement of plant organs in response to force of gravity is called

A. Phototropism

B. Thigmotropism

C. Geotropism

D. Chemotropism.

# Answer: C

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**94.** The stem bends upwardly and root downwardly under influence of gravity because

A. Of nature of stem and root

- B. Stem is photonastic and root geonastic
- C. Stem is negatively geotropic and root positively geotropic
- D. Stem is negatively hydrotropic and root positively hydrotropic.

Answer: C

95. The influence of gravity on plant organs can be removed by

rotating the plant in

A. Auxanometer

**B.** Potometer

C. Respirometer

D. Clinostat.

Answer: D

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96. Exactly opposite response of stem and root to gravity is

because of

A. Requirement of differential optimum concentration of

auxin for elongation of stem and root cells

- B. Nature of these organs
- C. Position effect of these organs since embryonic stage in

seed

D. None of the above.

Answer: A

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97. Tropic movements occur as a result of

A. Unidirectional effect of environmental factors on plant

organs

B. Bidirectional effect of environmental factors on plant

organs

C. Multidirectional effect of environmental factors on plant

organs

D. No effect of environmental factors on plant organs/

Answer: A

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**98.** Photopropism is because of unequal distribution of auxin under the influence of unilateral (one sided) illumination as auxin

- A. Moves from illuminated side to shaded side
- B. Synthesis is checked on illuminated side

C. Destroyed on illuminated and not on shaded side

D. All of the above.

Answer: D

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99. Positive photoropism is due to elongation of cells

A. More on illuminated side and less on shaded side

B. More on shaded side and less on illuminated side

C. Less on illuminated side and normal on shaded side

D. Normal on illuminated side and less on shaded side

Answer: B

100. Who discovered that phototropism is the result of presence

of more auxin on shaded side than on illuminated side.

A. Galston

B. Boysen-Jensen

C. Went

D. Kogl and Haagen-Smit.

#### Answer: C

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101. The site which receives the phototropic stimulus is

A. Shoot apex (tip)

B. Root apex (tip)

C. Meristematic regions

D. Leaves.

Answer: A



102. Turgor movements are due to

A. Reversible changes in cell volume due to changes in

turgidity of cell.

B. Reversible changes in cell volume due to simple cell

contraction in cell.
C. Irreversible changes in cell volume due to maintenance of

turgidity of cell

D. Irreversible changes in cell volume due to cell elongation.

### Answer: A



**103.** Movement of leaves in Mimosa pudica in response to stimulus is an example of

(a) Nyctinasty

(b) National movement

(c) Thigmonasty

(d) Seismonasty

A. Pulvinus and pulvinnules

B. Pinna and pinnules

C. Leaf and leaflets

D. Petiole and rachis.

### Answer: A



# 104. Stimulus in Mimosa pudica travels in the form of

A. Auxin

B. Hormone

C. Alcohol

D. None of the above.

Answer: B



**105.** In hyponasty, there id is increased growth on

A. Shaded side

B. Illuminated side

C. Lower surface

D. Upper surface.

Answer: C

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106. Irritability/Reactivity/Sensitivity of a plant is

A. Response to stimulus in soil

B. Response to a change in environment

C. Movement caused by an external force

D. Ability to move.

### Answer: B



**107.** The minimum time interval required between application of stimulus and production of response is

A. Presentation time

B. Relaxation time

C. Conversion time

D. Reaction time.



108. The area fo the plant which receives the stimulus is

A. Perceptive region

B. Responsive region

C. Receptive region

D. Reactive region.

Answer: A



109. The minimum time for which the stimulus must be applied

in order to obtaind a response is

A. Conversion time

B. Conduction time

C. Presentation time

D. Reaction time.

Answer: C

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110. The area of photoperception is

A. Region of elongation

B. Tip

C. Young leaves

D. Axillary buds.

Answer: B

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111. The area of response in phototropism and geotropism is

A. Apical meristem

B. Subapical meristem

C. Region of elongation

D. Area of differentiation.

Answer: C



112. Geotropism is

A. Growth away from the vector of gravity

B. Growth at right angles to the force of gravity

C. Response to the stimulus of gravity

D. Unequal growth due to gravity.

### Answer: C

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113. Sleep movement (nyctinasty) of legumes is

A. Turgor movement

B. Growth movement

- C. Hygroscopic movement
- D. Movement of locomotion.

## Answer: A

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114. Sleep movement Papaya/Balsam is

A. Autonomic movement

B. Tropic movement

C. Movement of locomotion

D. Growth movement.

Answer: D

115. Plant movements unrelated to external stimulus are

A. Autonomic

**B.** Paratonic

C. Mechanical

D. Hygroscopic

Answer: A

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116. Opening of flower and dropping of a bud are

A. Epinasty

B. Hyponasty

C. Nutation

D. Phototaxis.

Answer: A

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117. Phototaxis is shown by

A. Zoospores of Ulothrix

B. Chlamydomonas

C. Volvox

D. All of above.

Answer: D



118. According to statolith theory, a plant distinguishes up from

down by means of

A. Phytochrome

**B.** Amyloplasts

C. Auxin distribution

D. Ascent of sap.

### **Answer: B**

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119. Tropic movements are caused by

A. Cell division

**B.** Cell elongation

C. Loss of water

D. Gain of water.

### **Answer: B**



120. Rhizome/runner is

A. Diageotropic

B. Plagio-geotropic

C. Negatively geotropic

D. Positively geotropic.

Answer: A



121. Secondary roots are generally

A. Diageotropic

B. Positively geotropic

C. Ageotropic

D. Plagio-geotropic.

Answer: D

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122. Circinate ptyxis present in fern leaves is due to

A. Epinasty

B. Hyponasty

C. Nutation

D. Movement of variation

### **Answer: B**



**123.** In strong light, chloroplasts are arranged along the lateral walls of palisade cells. The condition is called

A. Parastrophe

B. Epistrophe

C. Apostrophe

D. Positive heliotropism.

# Answer: A Vatch Video Solution 124. Selaginella sperms swim towards archegonia. The phenomenon is

A. Chemotaxis

B. Chemotropism

C. Chemonasty

D. Thigmonasty

Answer: A

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125. Drooping/folding of legume leaves in dark is

A. Temporary wilting

**B. Nyctinasty** 

C. Seimonasty

D. Permanent wilting.

Answer: B

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126. Effect of unilateral irradiation can be eliminated by keeping

the plant in a clinostat in

A. Horizontal position

**B.** Vertical position

C. Horizontal position and rotating it.

D. Vertical position and rotating it.

# Answer: D

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127. Direction of light is detected by

A. Phytochrome

**B.** Amyloplasts

C. Carotenoids

D. Plant receptors.

Answer: C



128. Turgor movements occur in response to

A. Stimulation of amyloplasts

B. Activation and deactivation of phytochrome

C. Circadian rhythm

D. Changes in  $K^+$  ion concentration.

Answer: D

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129. Geotropic response of root is due to

A. Higher auxin content of stem

B. Higher growth on upper side of root

C. Lower rate of growth in the stem

D. Higher rate of growth in the stem.

Answer: D

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130. What is the type of movement that occurs during opening

and closing of flowers ?

A. Nastic movement

B. Tactic movement

C. Tropic movement

D. Nutation.

Answer: A





**131.** Cholodny-Went theory is connected with

A. Photomorphogenesis

B. Phototropism

C. Geotropism

D. Both B and C.

Answer: D

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132. Desmodium gyrans shows

A. Autonomic movements of variation

- B. Autonomic movements of growth
- C. Paratonic movements of variation
- D. Paratonic movements of growth.

# Answer: A



133. Primary root is

A. Positively geotropic

B. Positively hydrotropic

C. Both A and B

D. None of the above.

Answer: C



134. Pneumatophores are

A. Positively geotropic

B. Plagio-geotropic

C. Diageotropic

D. Negatively geotropic.

Answer: D

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135. Entwining of Grape Vine tendril around a suppot is

A. Thigmotropism

**B.** Nutation

C. Gravitropism

D. Chemonasty.

Answer: A



136. Pollen tubes show:

A. Haptotropism

B. Chemotropism

C. Anemotropism

D. Heliotropism.

**Answer: B** 



137. Tendrils and twiners come in contact with their support by

means of

A. Nutation

B. Thigmonasty

C. Thigmotropism

D. Anemotropism.

Answer: A

**Watch Video Solution** 

138. Movements caused by internal factors are

A. Paratonic

**B.** Intrinsic

C. Autonomic

D. Rheotropism.

Answer: C

**Watch Video Solution** 

139. Light effective in producing photoropism is

A. Green

B. Red

C. Yellow

D. Blue

# Answer: D Watch Video Solution 140. Movement caused by injury is

A. Traumotropism

B. Rheotropism

C. Traumonasty

D. Rheonasty.

Answer: A



141. Upright growth of lodged (horizontal) stem is due to

A. Activity of lateral meristem

B. Accumulation of more auxin on the lower side

C. Accumulation of more auxin on upper side

D. Greater cell enlargement on upper side.

Answer: B

**Watch Video Solution** 

142. More concentration of auxin in horizontally placed plants,

under the influence of gravity, occurs in

A. Upper side

B. Lower side

C. Both upper and lower side

D. None of the above.



Watch Video Solution

2. Movement of leaves of sensitive plant, Mimosa pudica is due

to

A. Thermonasty

B. Seismonasty

C. Hydrotropism

D. Chemonasty.

Answer: B

**Watch Video Solution** 

3. What causes a green plant to bend towards light as it grows?

A. Because green plants need light to carry on

photosynthesis

- B. Because green plants are phototropic
- C. Light stimulates plants cells on the lighted side to grow

faster

D. Auxin accumulates on shaded side stimulating greater cell

elongation.

Answer: D

Watch Video Solution

4. Movements of tentacles in Drosera are

A. Photonastic

B. Thermonastic

C. Thigmonastic

D. Seismonastic.

Answer: C



5. Leaves of many grasses are capable of folding and unfolding

because they

A. Are very thin

B. Are isobilateral

C. Have specialised bulliform cells

D. Have parallel vascular bundles.

Answer: C



6. Opening and closing of flowers represent a kind of

A. Nastic movement

B. Tropic movement

C. Nutation movements

D. Autonomic movements

Answer: A

Watch Video Solution

**7.** Phototropism is shoots is attributed to or photoropic movements are due to

A. Auxin

B. Gibberellins

C. Cytokinin

D. Abscisic acid.

Answer: A



**8.** On touching, the leaves of Mimosa pudica droop down because of

A. Seismonasty

B. Nyctinasty

C. Chemonasty

D. Thigmotropism.

# Answer: A

Watch Video Solution

**9.** Growth of both stem and root is mediated by auxin. However, stem grows into air while root grows into soil. The reason is

A. Differential reaction of root and stem to auxin

- B. Only the stem tip produces auxin
- C. Only the root tip produces cytokinin
- D. Only the root cap can perceive gravity.

Answer: A

> Watch Video Solution

10. Thigmotropism is best seen in

A. Root apex

B. Stem apex

C. Leaf apex

D. Tendrils

Answer: D

Watch Video Solution

11. Pneumatophores show

A. Positively geotropism

B. Negative geotropism (ageotropism)

C. Thigmotropism
D. Negative photoropism.

Answer: B



12. Bending of stem towards light is

A. Photoperiodism

B. Heliotropism

C. Photonasty

D. Hydrotropism.

Answer: B

13. Bending of stem/coleoptile towards light or shoot of potted

plant placed near a window is due to

- (a) Greater oxygen availability to the tip
- (b) More auxin content on the shaded side
- (c) Greater light availability to tip
- (d) Availability of necessary warmth to the tip
  - A. Greater oxygen availability to the tip
  - B. More auxin content on the shaded side
  - C. Greater light availability to tip
  - D. Availability of necessary warmth to the tip.

# Answer: B

**14.** Which of the following movement is not related to auxin level?

A. Bending of shoot towards light

B. Movement of root towards soil

C. Nyctinastic leaf movements

D. Movement of sunflower head tracking the sun.

### Answer: C



15. Jerky lateral leaflet movements of Desmodium gyrans are

A. Negative geotropic movements

B. Positive geotropic movements

C. Hydrotropic movements

D. None of the above.

Answer: D

**Watch Video Solution** 

16. Opening of flower and dropping of a bud are

A. Hyponasty

B. Epinasty

C. Curvature movement

D. Spontaneous movements

Answer: B



17. Tendrils exhibit/twining of tendrils is due to

A. Thigmotropism

B. Seismonasty

C. Heliotropism

D. Diageotropism.

Answer: A

**Watch Video Solution** 

18. Phototropic and geotropic movements are linked to

A. Gibberellins

B. Enzymes

C. Auxin

D. Cytokinin.

Answer: C

Watch Video Solution

19. Geotropic response of root is due to

A. Inhibition of stem growth

B. More growth on lower side

C. More growth upper side

D. Uniform growth.

Answer: C



**20.** Movement of sperms towards archegonial necks due to component of their exudate is

A. Chemotropism

B. Chemotaxis

C. Phototaxis

D. Hydrotropism.

# Answer: B

Watch Video Solution

21. Tropic movement is due to

A. Cell elongation

B. Cell division

C. Both A and B

D. Cell thickening.

#### Answer: A



# 22. Klinostat is employed in the study of

A. Osmosis

B. Growth movements

C. Photosynthesis

D. Respiration

Answer: B



**23.** Sprouting of potato can be prevented in storage by

A. Maleic hydrazide

**B.** Gibberellins

C. Indole acetic acid

D. Cytokinins.

Answer: A

Watch Video Solution

24. Which one of the following is a natural growth inhibitor ?

A. NAA

B. ABA/Ethylene

C. IAA

D. GA.

Answer: B



**25.** Flowering response to length of day and night in plants is called

A. Photoropism

**B.** Photorespiration

C. Photoperiodism

D. Photo-oxidation.

# Answer: C

Watch Video Solution

**26.** Which of the following physiological effects is caused in plants by gibberellic acid?

A. Shortening of genetically tall plants

B. Elongation of genetically dwarf plants

C. Rooting in stem cuttings

D. Yellowing of young leaves.

Answer: B

27. The pigment involved in red - far red light interconversion is

A. Phytochrome system

B. Chlorophyll

C. Carotene

D. Chalcone pigment.

Answer: A

Watch Video Solution

28. Arifical ripening of fruits is caused by the treatment of

A. Sodium chloride

B. IAA

C. Ethylene gas

D. Kinetin.

Answer: C



29. Apical dominance is due to

A. Auxin

B. Cytokinin

C. Gibberellin

D. Ethylene.

Answer: A

30. The most effective wavelengths of light for flowering are

A. Green and yellow

B. Blue and red

C. Blue and violet

D. Red and far-red.

Answer: D

Watch Video Solution

31. Phytotron is a device by which

A. Electrons are bombarded

B. Protons are liberated

C. Plants are grown in controlled enviroment

D. Mutations are produced in plants.

# Answer: C

Watch Video Solution

**32.** A green plant will turn yellow if placed in the dark. This is called

A. Phototropism

B. Dormancy

C. Chlorosis

D. Etiolation.

Answer: D

**33.** Which of the following stimulates growth or cell enlargement ?

A. Gibberellin

B. Auxin

C. Cytokinin

D. Ethylene.

### Answer: B



34. Cytokinin

A. Is a hormone whose main function is the induction of cell

divison

B. Is the process of cell division

C. Refers to cell movements

D. Causes dormancy.

Answer: A

Watch Video Solution

35. Phytochrome is involved in

A. Phototropism

**B.** Photorespiration

C. Photoperiodism

D. Geotropism.

Answer: C

**Watch Video Solution** 

36. Hormone involved in phototropism is

A. IAA

B. Gibberellin

C. Kinetin

D. 2, 4-D.

Answer: A

37. Phytochrome is abundantly found in

A. Algae

B. Fungi

C. Vascular cryptogams

D. Flowering plants.

Answer: D

Watch Video Solution

38. When the dark period of short day plants is intrrupted by a

brief exposure of light, then the plant

A. Will not flower at all

**B.** Flowers immediately

C. Gives more flowers

D. Turns into a long day plant.

### Answer: A

**Watch Video Solution** 

39. Avena curvature test was first of all done by

A. J.C. Bose

B. F.W. Went

C. Thimann

D. Skoog.

Answer: B



40. Which is used as a weedicide ?

A. Indole Acetic acid

B. Napthalene Acetic acid (NAA)

C. Indole Butyric acid (IBA)

D. 2, 4-D.

Answer: D

**Watch Video Solution** 

**41.** The long-day plant is

A. Wheat/Spinach

B. Soyabean

C. Tobacco

D. Xanthium

Answer: A

Watch Video Solution

42. Herbicides are chemicals which control

A. Insects

B. Fungi

C. Weeds

D. Nematodes.

Answer: C

43. Gibberellin was first discovered from

(a) algae

(b) fungi

(c) bacteria

(d) roots of higher plants

A. A bacterium

B. A fungus

C. An alga

D. A virus.

Answer: B

44. Auxanometer is required for

A. Studying rate of transpiration

B. Measuring rate of respiration

C. Finding out rate of photosynthesis

D. Calculating rate of growth

Answer: D

Watch Video Solution

45. Naturally occurring auxin is

A. NAA

B. 2, 4-D

C. MH

D. IAA

Answer: D



46. Ethylene is a

A. A gaseous metabolite

B. A gaseous enzyme

C. A gaseous hormone

D. A solid hormone.

Answer: C

47. A chemical believed to be involved in flowering is

A. Gibberellin

B. Kinetin

C. Florigen

D. IBA.

Answer: C

Watch Video Solution

48. The pigment involved in red - far red light interconversion is

A. Carotenoids

B. Cytochromes

C. Chlorophylls

D. Phytochrome.

#### Answer: D



Answer: A



50. IAA was first isolated from

A. Corn germ oil

B. Gibberella

C. Human urine

D. Rhizopus.

Answer: C

Watch Video Solution

51. Internodal elongation is stimulated by

A. Auxin

B. Phenol

C. Cytokinin

D. Gibberellin.

Answer: D



52. Auxin suppresses growth of

A. Lateral axillary buds

**B.** Apical buds

C. Roots on stem cuttings

D. Parthenocarpy.

Answer: A



53. Bioassay of IAA is

A. Avena curvature test

B. Callus test

C. Leaf disc test

D.  $\alpha$ -amylase test.

Answer: A

> Watch Video Solution

54. Which of the following plant hormone substitutes for long

photoperiods in flowering plants

A. Ethylene

B. Auxin

C. Gibberellin

D. Cytokinin.

Answer: C

Watch Video Solution

55. Which of the following is used in root formation on stem

cuttings?

A. Kinetin

B.  $GA_3$ 

C. ABA

D. IBA/IAA.

# Answer:

**Watch Video Solution** 

56. Hormone primarily connected with cell division is

A. IAA

B. NAA

C. Cytokinin/Zeatin

D. Gibberellic acid.

Answer: C

**Watch Video Solution** 

**57.** Physiologically active form of phytochrome is

A.  $P_{730}\,/\,P_{
m fr}$ 

B.  $P_{660} \,/\, P_x$ 

C.  $P_{700}$ 

D.  $P_{680}$ .

Answer: A

Watch Video Solution

58. Growth plotted against time gives a

A. Parabolic curve

B. Sigmoid curve

C. Upright line

D. Horizontal line.

# Answer: B

**Watch Video Solution** 

59. Gibberellins bring about

A. Yellowing of leaves

B. Promotion of rooting

C. Elongation of genetically dwarf plants

D. Dwarfing of genetically tall plants.

#### Answer: C



60. Vernalisation is

- A. Growth curve related to light
- B. Effect of photoperiods on plant growth
- C. Speeding up ability to flower by low temperature

treatment

D. Diurnal photoperiodicity.

# Answer: C

Watch Video Solution

61. Phytochrome is involved in

A. Seed germination

B. Flowering

C. Chloroplast orientation

D. All the above.

Answer: D



62. Flowerig is influenced by

A. Soil water content

B. Soil acidity

C. Photoperiod

D. Content of green pigment.

Answer: C
**63.** Leaf fall occurs as abscission layer is formed when the constant of

A. Abscisic acid decreases

B. Auxin decreases

C. Auxin increases

D. Gibberellin decreases.

Answer: B

**Watch Video Solution** 

64. Apical dominance is due to

A. Photoperiodism

B. Phototropism

C. Hormones

D. Enzymes.

Answer: C

**Watch Video Solution** 

65. The hormone responsible for apical dominance is



B. GA

C. ABA

D. Florigen.

Answer: A



66. IAA precursor is

A. Tryptophan

B. Leucine

C. Tyrosine

D. Phenylalanine.

**Answer: A** 



67. The pigment involved in red - far red light interconversion is

A. Carotene

B. Phytochrome

C. Cytochrome

D. Lycopene.

**Answer: B** 

Watch Video Solution

**68.** Abscisic acid also called as dormin is the plant growth regulator which causes

A. Stomatal closure

B. Stem elongation

C. Leaf expansion

D. Root elongation.

Answer: A

Watch Video Solution

69. Abscisic acid controls/ promotes

A. Cell division

B. Leaf fall and dormancy

C. Shoot elongation

D. Cell elongation and wall formation.

## Answer: B

Watch Video Solution

70. Flowering response to length of day and night in plants is

called

A. Chemotropism

B. Photoropism

C. Photoperiodism

D. Photonasty.

Answer: C

Watch Video Solution

## 71. Phytohormones are

A. Chemicals regulating flowering

B. Chemicals regulating secondary grwoth

C. Hormones regulating growth from seed to adulthood

D. Regulators synthesised by plants and influencing

physiological processes.

#### Answer: D

Watch Video Solution

72. Parthenocarpy can be achieved by

A. Zeatin

B. ABA

C. Auxins

D. Kinetin.

Answer: C

Watch Video Solution

73. The term phytochrome was introduced by

A. Borthwick and Hendricks

**B. Bothwick** 

C. Moore

D. Garner and Allard.

Answer: A

Watch Video Solution

74. Dwarfness can be controlled by treating the plant with

A. Cytokinin

B. Gibberellic acid

C. Auxin

D. Antigibberellin.

Answer: B

**Watch Video Solution** 

**75.** In which region of the plant does highest auxin concentration occurs

A. In growing tips

B. In leaves

C. At base of plant organs

D. In xylem and phloem.

#### Answer: A



76. Cytokinins

A. Promote abscission

B. Influence water movement

C. Help retain chlorophyll

D. Inhibit protoplasmic streaming.

Answer: C



77. Leaf fall can be prevented by

A. Abscisic acid

**B.** Auxins

C. Florigen

D. Cytokinins.

Answer: D

Watch Video Solution

78. Gibberellic acid induces flowering

A. Some plants only

B. Long day plants under short day conditions

C. Short day plants under long day conditions

D. Day neutral plants.

#### Answer: B



**79.** In short day plants (SDP) flowering is induced by

A. Photoperiod less than 12 hours

B. Photoperiod below a critical length and uninterrupted

long night

C. Long night

D. Short photoperiod and interrupted long night.

## Answer: B

**Watch Video Solution** 

80. Apical dominance is caused due to action of

A. Abscisic acid in lateral bud

B. Cytokinin in leaf tip

C. Gibberellin in lateral buds

D. Auxin in shoot tip.

Answer: D



81. Fruit ripening is accelerated by

- A. Warm surroundings
- B. Increased nitrogen supply
- C. Reduced water supply
- D. Ethylene rich atmosphere.

Answer: D

**Watch Video Solution** 

82. Which one is the test for gibberellin ?

- A. Bolting in Cabbage
- B. Morophogenesis in tobacco callus
- C. Rapid divisions in Carrot cells
- D. Elongation of Oat coleoptile.



83. Dwarfness can be controlled by treating the plant with

A. Auxin

B. Cytokinin

C. Gibberellins

D. Ethylene.

Answer: C



**84.** Out or excised leaves remain green for long if induced to root or dipped in

A. Gibberellins

**B.** Cytokinins

C. Auxins

D. Ethylene.

Answer: B

**Watch Video Solution** 

85. Bananas can be pr evented from over-ripening by

A. Maintaining them at room temperature

**B.** Refrigeration

C. Dipping in ascorbic acid solution

D. Storing in a freezer.

## Answer: C

Watch Video Solution

86. Which of the following induces flowering in short day plant

A. Auxin

B. Cytokinin

C. Gibberellin

D. Propylene.

Answer: B



87. The activity of  $\alpha$ -amylase in the endosperm of a germinating

seed of barley is induced by

A. Cytokinin

B. Gibberellins

C. Ethylene

D. Auxin.

Answer: B

> Watch Video Solution

88. Foolish seedling' disease of rice led to the discovery of

A. Gibberellin

B. IAA

C. Ethylene

D. Cytokinin

Answer: A



**89.** Which one can induce flowering in long day plants ?

A. cytokinin

B. auxin

C. Gibberellin

D. Ethylene

Answer: C



**90.** Certain plants need to be exposed to a low temperature to hesten flowering later in life. This treatment is known as

A. Cyotherapy

**B.** Cryogenics

C. Cryoscopy

D. Vernalisation.

Answer: D

Watch Video Solution

91. Photoperiodism is due to hormone

A. Cytokinins

B. Gibberellins

C. Auxin

D. Florigen.

Answer: D

Watch Video Solution

92. Gibberellin application to a plant brings about

A. Leaf fall

B. Diversification of root system

C. Elongation of shoot system

D. Delay in senescence.

# Answer: C Watch Video Solution

93. In root, the region of fastest growth is

A. Root hair zone

B. Behind the root rip

C. Root tip

D. Before the root tip.

Answer: B



**94.** What is a stress hormone ? Or The hormone produced during adverse environmental conditions is

A. Benzyl aminopurine

B. Dichlorophenoxy acetic acid

C. Ethylene

D. Abscisic acid.

Answer: D

**Watch Video Solution** 

**95.** The regulator which retards ageing/senescence of plant parts is

A. Cytokinin

B. Auxin

C. Gibberellin

D. Abscisic acid.

Answer: A



**96.** Richmond Lang effect and overcoming of apical dominance are observed in plants by the treatment of

A. Gibberellins

B. Auxin

C. Ethylene

D. Kinetin.



97. Which hormone brings about stomatal closure during severe

drought conditions?

A. IAA

B. ABA

C. IBA

D. 2, 4-D

Answer: B

Watch Video Solution

98. Phytochrome is associated with

A.  $P_r$  and  $P_{\rm fr}$  reactions

B. Absorption of red light of 660 nm

C. Absorption of far-rad light of 740 nm

D. Absorption of blue-light by leaves.

Answer: A

Watch Video Solution

99. Removal of apical bud makes the plant

A. Formation of new apical bud

B. Elongation of main stem

C. Death of plant

D. Formation of lateral branching.

#### Answer: D

**Watch Video Solution** 

100. The maximum growth rate occurs in

A. Exponential phase

B. Decline phase

C. Stationary phase

D. Lag phase.

Answer: A

Watch Video Solution

101. Auxin synthesis occurs in

A. Root/shoot tips

B. Cortex

C. Xylem

D. Phloem cells.

Answer: A

Watch Video Solution

102. The pigment that absorb red and far - red light is

A. Carotene

B. Xanthophyll

C. Chlorophyll

D. Phytochrome.

Answer: D



103. Movement of auxin is

A. Centripetal

**B.** Basipetal

C. Acropetal

D. Both B and C.

Answer: D

Watch Video Solution

104. Growth is maximum in zone of

A. Cell elongation

B. Cell division

C. Cell maturation

D. All the above.

Answer: A

Watch Video Solution

105. Which does not take place in short day plants?

A. An interrupted critical dark period

B. Critical period is interrupted by light

C. Dark period is interrupted by red light followed by far-red

light

D. Critical period is not interrupted by white or red light.

#### **Answer: B**



# 106. Plant hormone controlling fruit ripening is

A. IAA

B. GA

C. Ethylene

D. Kinetin

Answer: C



## 107. Gaseous growth hormone is

A. IAA

B. GA

C. Kinetin

D. Ethylene.

Answer: D

Watch Video Solution

108. The pigment involved in red - far red light interconversion is

A. Phytochrome

B. Cytochrome

C. Xanthophyll

D. Chlorophyll b.

#### Answer: A



**109.** the term "photoperiodism" was proposed by or the phenomenon of photoperiodism in plants was discovered by

A. Darwin

B. Lysenko

C. Arnon

D. Garner and Allard.

Answer: D
<b>O</b> Watch Video Solution
<b>110.</b> Which is not a phytohormone ?
A. Phytochrome
B. Florigen
C. GA
D. IAA.
Answer: A
<b>Vatch Video Solution</b>

111. Which one of the following respones of plants to growth

hormone is true for ethylene

A. Decrease in flower abscission

B. Decreases in femaleness

C. Increase in fruit ripening

D. Increase in cell elongation.

### Answer: C



112. First natural cytokinin was discovered by

A. Skoog and Miller

B. Letham

C. Benson and Calvin

D. Thimann and Went.

#### Answer: B

**Watch Video Solution** 

113. The name zeatin was coined by

A. Skoog

B. Miller

C. Letham

D. Melvin.

Answer: C


114. florigen is synthesised in

A. Leaves

B. Fruit

C. Root

D. Trunk.

Answer: A

**Watch Video Solution** 

115. Which one is short day plant?

A. Brassica campestris

B. Raphanus sativus

C. Glycine max

D. Papaver somniferum.

## Answer: C

Watch Video Solution

116. Abscisic acid causes

A. Seed dormancy

B. Apical dominance

C. Root initiation

D. Phototropism.

Answer: A



117. Induction of cell division activity and delay in senescence is

caused by

A. Gibberellin

B. Auxin

C. Cytokinin

D. Ethylene.

Answer: C

Watch Video Solution

**118.** 2:4-D causes

A. Delay in senescence

**B.** Bolting

C. Increase in branches

D. Increased growth of all parts.

#### Answer: D



# **119.** Lateral axillary buds are not allowed to grow by

A. Auxin

B. Ethylene

C. Gibberellin

D. Cytokinin.

Answer: A



120. Which is not a natural plant hormone?

A.  $GA_3$ 

 $\mathsf{B.}\,GA_2$ 

C. IAA

D. 2, 4-D

Answer: D



121. Cytokinins are generally

A. Glucosides

**B.** Aminopurines

C. Acidic

D. Phenolic.

Answer: B



122. Kinetin is

A. Indolebutyric acid

B. Indole acetic acid

C. Butyric acid

D. 6-furfuryl amino-purine.

Answer: D



123. One of the following is a growth retardent

A. Morphactin

B. Zeatin

C. Adenine

D. Ascorbic acid.

Answer: A

**Watch Video Solution** 

124. Auxin takes part in

A. Promotion of cell division

B. Promotion of cell enlargement

C. Promotion of fruit ripening

D. Inhibition of shoot growth.

### **Answer: B**



# **125.** A Pigment concerned with both floral induction and seed germination is

A. Florigen

B. Plastocyanin

C. Phytochrome

D. Chlorophyll.



126. Interfascicular cambium formation is induced by

A. Auxin

B. Cytokinin

C. Gibberellin

D. Ethylene.

Answer: B



127. Hormone that promotes growth of lateral buds and has

negative effect on apical dominance is

A. Cytokinin

B. Gibberellin

C. Auxin

D. Both B and C.

Answer: A

**Watch Video Solution** 

128. Seasonality of plants is due to

A. Phototropism

B. Photosynthesis

C. Photoperiodism

D. Photolysis

Answer: C

**Watch Video Solution** 

**129.** Cerain chmical substances having profound effect on growth ,are called

A. Enzymes

**B.** Phytohormones

C. Catalytic agents

D. Manure.

Answer: B



**130.** Food products are kept in cold storage or refrigerator in order to

- A. Make them tasty
- B. Use in off-season
- C. Maintenance of freshness, longevity and taste due to low

respiration

D. Keep them cool.

Answer: C



131. Food material can be preserved at

- (a) High temperature
- (b) Low temperature
- (c) Osmotic temperature
- (d) All the above.
  - A. Low temperature
  - B. High temperature
  - C. Osmotic pressure
  - D. All the above.
- Answer: A



**132.** Which one prevents photo-oxidation and pigment destruction?

A. Phytochrome

B. Phytohormone

C. Phycocyanin

D. Phyco-erythrin.

Answer: A



133. If a tree flowers thrice in a year (October, January and july) in

nothern india, it is said to be

A. Photo- and thermo-sensitive

B. Photo- and thermo-insensitive

C. Photosensitive but thermo-insensitive

D. Thermosensitive but photo-insensitive.

### **Answer: B**



# 134. Gibberellins induce

A. Cell division

B. Leaf senescence

C. Hydrolysing enzymes in germinating seeds

D. Flowering

Answer: C



**135.** Which of the following is not caused by deficiency of mineral?

A. Chlorosis

B. Internode shortening

C. Necrosis

D. Etiolation.

Answer: D



136. What will be the effect on phytochrome in a plant subjected

to continuous red light?

A. Increases synthesis

B. Decreases level

C. Destruction

D. Destruction and synthesis remains in balance.

Answer: D

**Watch Video Solution** 

**137.** The hormone which promotes flowering in long day conditions and controls sex expression is

A. Auxin

**B.** Cytokinins

C. Gibberellins

D. Ethylene.



138. Development of shoot and root is determined by

A. Cytokinin and auxin ratio

B. Enzymes

C. Temperature

D. Plant nutrients.

Answer: A



139. 2, 4-D is

A. Weedicide

B. Insecticide

C. Rodenticide

D. Nematicide.

**Answer: A** 

Watch Video Solution

140. [A]: The far-red form of the phytochromes ab- sorb light at

740 nm.

[R]: The red form of phytochrome absorbs light at 660 nm

A. 600 nm

B. 650 nm

C. 660 nm

D. 730 nm.

Answer: C



# 141. Hormone discovered through tissue culture technique is

A. Auxin

B. Cytokinin

C. Gibberellin

D. Abscisic acid.

Answer: B

Watch Video Solution

142. Bolting may be induced by

A. Cytokinins

**B.** Auxins

C. Coumarins

D. Gibberellins.

Answer: D

Watch Video Solution

143. Sometimes Potato sprouts during storage due to formation

of

A. Ethylene

B. Gibberellin

C. Cytokinin

D. Auxin.

Answer: B

**Watch Video Solution** 

144. Flash of light in dark inhibits flowering in

A. SDP

B. LDP

C. LSDP

D. DNP.

Answer: A



**145.** The fungus associated with discovery and source of gibberellins is

A. Fusarium oxysporum

B. Fausarium solanii

C. Fusarium moniliforme

D. Fusarium longipes.

## Answer: C

Watch Video Solution

146. Which is agent orange?

A. Weedicide with dioxin

B. Chemical used in luminous paint

C. Biodegradable insecticide

D. Colour used in fluorescent temp.

## Answer: A



**147.** Food is preserved at low temperature because

A. Bacterial attack is minimised

B. For easy cooking

C. For easy digestion

D. All the above.

Answer: A



148. Who discovered photoperiodism?

A. W. Went

B. F.F. Blackman

C. Garner and Allard

D. F.E. Fritsch.

Answer: C

Watch Video Solution

**149.** Which one among the following chemical is used for causing defoliation & for causing defoliation of forest trees

A. Phosphon D

B. Maleic hydrazide

C. AMO 1618

D. 2, 4-D

**Answer: D** 

Watch Video Solution

150. Which combination of gases is suitable for fruit ripening

A.  $80~\%~CH_4 + 20~\%~O_2$ 

B.  $80 \% C_2 H_2 + 20 \% CO_2$ 

C.  $80~\%~CO_2+20~\%~C_2H_4$ 

D. 80 %  $CH_4 + 20$  %  $CO_2$ .



151. A plant hormone used for inducing morphogensis in plant

tissue culture is

A. Abscisic acid

B. Gibberellin

C. Cytokinin

D. Ethylene.

Answer: C

Watch Video Solution

**152.** The response of different organisms environmental rhythms of light and darkness is called

A. Photoperiodism

B. Phototropism

C. Phototaxis

D. Vernalisation.

Answer: A

**Watch Video Solution** 

153. Some early experiments on phototropic curvature in grasses

led to discovery of

A. Auxin

B. Gibberellins

C. Cytokinins

D. None of the above.

Answer: A



# 154. Hormone produced during leaf fall is

A. Cytokinin

B. Florigen

C. ABA

D. IAA.

Answer: C



**155.** Fruit and leaf drop at early stages can be prevented by the application of

A. Auxin

B. Ethylene

C. Gibberellins

D. Cytokinins.

Answer: A



156. Bakane disease of Rice is due to

A. NAA

B. 2, 4-D

C. IAA

D. GA.

Answer: D

**Watch Video Solution** 

**157.** Which of the following ion is pulled out in apoplast by the auxin during growth

A.  $K^+$ 

 $\mathsf{B.}\,H^{\,+}$ 

C.  $Na^+$ 

D.  $Mg^{2\,+}$  .

Answer: B
Watch Video Solution
<b>158.</b> Sensation of phototropism is perceived by
A. Root tip
B. Shoot tip
C. Axillary bud
D. Node.
Answer: B

**Watch Video Solution** 

159. Closure of lid in Pitcher Plant is a

- A. Tropic movement
- B. Turgor movement
- C. Paratonic movement
- D. Autonomic movement.

Answer: C

**Watch Video Solution** 

160. Movement of plant part in response to touch is

A. Seismonasty

B. Thigmonasty

C. Nutation

D. None of tha above.

## Answer: B

Watch Video Solution

161. Some flowers (e.g., Oxalis) open in the morning and close

during evening because of

A. Photonasty

B. Phototropism

C. Phototaxis

D. Nyctinasty.

Answer: A

Watch Video Solution

**162.** On touching, the leaves of Mimosa pudica droop down because of

A. Water loss from leaflet bases

B. Changes in water concentration

C. Loss of water from cells to intercellular spaces in pulvinus

and pulvinules

D. All the above.

Answer: C

Watch Video Solution

163. Bulliform cells in Grass leaves show

A. Growth movements

- B. Tropic movement
- C. Nastic movements
- D. Turgor movements.

## Answer: D



164. Example of positive geotropism is

A. Closing of flowers

- B. Upwards growth of stem
- C. Downward growth of root
- D. Lateral growth of root.

Answer: C


165. Thigmotropism is best exhibited by

A. Lamina

B. Tendrils

C. Root apex

D. Tendrils

Answer: B

Watch Video Solution

166. Skototropic movements are induced by

A. Night

B. Light

C. Touch

D. Heat.

Answer: A



# **167.** Which movement occurs due to external stimulus ?

A. Tropic

B. Nastic

C. Tactic

D. All the above.

Answer: D



168. Plant movement in response to diffuse stimulus of light is

A. Phototropism

**B.** Photolysis

C. Phototaxis

D. Photonasty.

Answer: C

Watch Video Solution

169. Phototropic curvature Is the resutt of uneven distribution of

A. Auxin

B. Gibberellin

C. Starch

D. Phytochrome.

**Answer: A** 



170. Movement of Sunflower towards the direction of Sun is

A. Photonasty

B. Phototropism

C. Nyctinasty

D. Seismonasty.

Answer: B



171. Peristome teeth of moss shows

A. Hydrochasy

B. Xerochasy

C. Hydrotropism

D. Chemotropism.

Answer: B

Watch Video Solution

172. Choose the correct alternative :

Geotropic response is perceived by:

A. Mature roots

B. Elongating cells

C. Root cap

D. Root hairs.

Answer: C

Watch Video Solution

173. Effect of daily light period on flowering is

A. Photorespiration

B. Photomorphogenesis

C. Photoperiodism

D. Photoropism.

# Answer: C

Watch Video Solution

174. Substances that accumulate around a site of infection in

plants is

A. Phytolexins

**B.** Proteinome

C. Saponins

D. All the above.

Answer: A

Watch Video Solution

175. Plant growth is

A. Limited

**B. Unlimited** 

C. Unlocalised

D. Diffused.

Answer: B

Watch Video Solution

176. Photoperiodic stimulus is received by

A. Leaves

**B.** Flowers

C. Buds

D. Meristem.

Answer: A



**177.** Parthenocarpic fruits can be produced by application of auxin

A. IAA

B. IBA

C. NAA

D. All the above.

Answer: D

Watch Video Solution

178. Coconut milk factor is : -

A. Gibberellin

B. Auxin

C. Ethylene

D. Cytokinin.

Answer: D



# 179. Match the items of column I and column II

Column I	Column II
a Auxin	$\mathrm{p}\mathrm{GA}_3$
b Gebberellins	q Indole Acetic Acid
${ m c}\ { m Cytokinin}$	r abscisic Acid
d Dormin	s Acetic acid
	t Zeatin

Answer: C

Watch Video Solution

180. Cardinal value of temperature refers to

A. Minimum temperature

B. Optimum temperature

C. Maximum temperature

D. All the above.

Answer: D	
Watch Video Solution	
<b>181.</b> High concentration of auxin is present in	
A. Root apex	
B. Shoot apex	
C. Petiole	
D. Node.	

Answer: B



182. Hormone responsible for plant and seed dormancy during

drought is

A. IBA

B. NAA

C. ABA

D. Zeatin.

Answer: C

**Watch Video Solution** 

183. Growth regulator ethylene is used for

A. Retarding ripening of tomatoes

B. Speeding up ripening of fruits

C. Slowing down ripening of apples

D. Both B and C.

## Answer: B

Watch Video Solution

184. In short day plants, flowering is inhibited by

A. Interruption of dark by white or red light

B. Dark interruption by far red light

C. Dark interruption by red light followed by far red light

D. Not possible

Answer: A

**185.** First chemical identification of auxin, indole 3-acetic acid, was carried out by

A. Went

B. Thimann

C. Darwin

D. Paal.

Answer: B

Watch Video Solution

**186.** Plant hormone causing abscission of leaves, senescence, bud dormancy and inhibition of cell division is

A. IAA

B. Ethylene

C. Cytokinins

D. ABA.

Answer: D

Watch Video Solution

**187.** Growth substance that stimulates nodule formation in leguminous plants is

A. NAA

B. IAA

C. IBA

D. ABA.

# Answer: B

Watch Video Solution

**188.** Assertion. Plants also have hormones called phytohormones. Reason. They increase the rate of reactions and thus always accelerate growth and other related changes

A. Point out if both are true with reason being correct

explanation

B. both true but reason not correct explanation

C. assertion true but reason wrong

D. and both wrong.

Answer: C

189. Bolting does not require

A. Short days

B. Long days

C. Internode elongation in rosette plants

D. Cold nights.

# Answer: A

Watch Video Solution

190. Pick up the correct explanation

A. Xanthium - Long day plant

B. Sunflower - short day plant

- C. Wheat short day plant
- D. Tomato Day neutral plant.

#### Answer: D

**Watch Video Solution** 

191. Cytokinin synthesis is maximum in

A. Roots

B. Leaves

C. Shoot tip

D. Fruit.

Answer: A



**192.** Ethylene is connected with

A. Aerobic respiration

B. Climacteric respiration

C. Anaerobic respiration

D. Fermentation.

Answer: B

**Vatch Video Solution** 

193. During drought, plants develop hormone

A. Indole acetic acid

B. Naphthalene acetic acid

C. Indolebutyric acid

D. Abscisic acid.

Answer: D

Watch Video Solution

194. What is true about phytochrome?

A.  $P_r$  absorbs red light and becomes  $P_{
m fr}$ 

B.  $P_r$  absorbs yellow light and becomes  $P_{\mathrm{fr}}$ 

C.  $P_{\mathrm{fr}}$  absorbs yellow light and becomes  $P_r$ 

D.  $P_{\rm fr}$  absorbs red light and becomes  $P_r$ .

Answer: A

195. In short day plants, flowering is induced by

A. Short days and interrupted long nights

B. Short day and uninterrupted long nights

C. Short nights

D. Long day with interrupted night.

Answer: B

**Watch Video Solution** 

**196.** Photoperiod stimulus is perceived by\_\_\_pigment.

A. Phytohormones

B. Stomata

C. Phytochrome

D. Enzymes.

Answer: C

**Watch Video Solution** 

197. Synthetic plant hormone is

A. IAA

B. 2, 4-D/NAA

C. GA

D. Zeatin.

Answer: B



**198.** Which of the following is a cytokinin ?

A. Phytochrome

B. Leucine

C. Ethylene

D. Zeatin.

Answer: D

**Watch Video Solution** 

199. Hormone responsible for ageing is

A. GA

B. IAA

C. ABA

D. Cytokinin.

Answer: C

Watch Video Solution

200. Hormone that breaks dormancy of potato tuber is

A. IAA

B. ABA

C. Zeatin

D. Gibberellin.

Answer: D

Watch Video Solution

201. Which one prevents premature fall of fruit ?

A. NAA

B. Ethylene

 $\mathsf{C}.\,GA_3$ 

D. Zeatin.

Answer: A

**Watch Video Solution** 

202. Photoperiodism affects

A. Seed germination

B. Vegetative growth

C. Internode elongation

D. All of above.

Answer: D

**Watch Video Solution** 

203. The existence of growth regulating chemicals in plants was

first suggested by

A. Went

B. Sachs

C. Darwin

D. Paal.

Answer: A



204. A long day plant flowers only when it is exposed to

A. Red light

B. Light more than critical day length

C. Light equal to critical day length

D. Light less than critical day length.

#### Answer: B

Watch Video Solution

205. Which one does not affect apical dominance?

B. IBA

C. Gibberillins

D. Indole Acetaldehyde.

#### Answer: C



**206.** The phenomenon wherein, the ovary develops into a fruit without fertilisation is called

A. Parthenogensis

B. Parthenocarpy

C. Apospory

D. Apogamy.

Answer: B	
<b>Vatch Video Solution</b>	
<b>207.</b> Negative phototropism occurs in	
A. Root	
B. Stem	
C. Leaf	
D. Flower.	
Answer: A	
Watch Video Solution	

208. Bending of shoot tip in the absence of light is

A. Chlorosis

**B.** Emasculation

C. Etiolation

D. Tanning.

Answer: C

Watch Video Solution

**209.** Plant growth hormones extracted from a fungus and a fish

are respectively

A. Gibberellins and zeatin

B. Ethylene and cytokinin

C. Auxin and 2, 4-D

D. Gibberellin and kinetin.

# Answer: D

Watch Video Solution

210. An important finding in Went's experiment was

A. Unequal distribution of elongation promoting substance

in Avena coleoptile

- B. Presence of elongation factor in all cells of root
- C. Curvature of coleoptile is proportional to auxin

concentration

D. Curvature occurred due to irregular elongation of cells.

Answer: C

Watch Video Solution

211. Gibberellin takes part in

A. Bolting of rosette plants

B. Replacing long day requirement

C. Overcoming genetic dwarfism

D. All the above.

Answer: D

Watch Video Solution

**212.** The instrument by which the rate of growth of stem is accurately measured is

Or

Growth in length of a plant can be measured by

A. Manometer

B. Auxanometer

C. Potometer

D. Clinostat.

**Answer: B** 

Watch Video Solution

213. Antiauxin used in picking cotton balls is

A. 2, 4-D

**B. TIBA** 

C. NAA

D. Both A and B.

# Answer: B

**D** Watch Video Solution

214. Antigibberellin is

A. Cycocel

B. Plastoquinone

C. IAA

D. Ubiquinone.

Answer: A

**Watch Video Solution** 

215. What is correct regarding albinism?

A. Albinism is genetic and etiolation is physiological

B. Etiolation is genetic and albinism is physiological

C. Etiolation is irreversible

D. Etiolation and albinism are synonyms.

Answer: A

**Watch Video Solution** 

**216.** Growth of lateral branches is promoted by

A. Removal of axillary buds

B. Auxin application over decapitated apex

C. Auxin application over apical bud

D. Removal of apical bud.
Answer: D
Watch Video Solution
217. Sleep movements in Samanea saman are regulated by
A. N
B. P
С. К
D. Mg.
Answer: C
<b>Vatch Video Solution</b>

**218.** Phytochrome was isolated by

A. Butler et al

B. W. Went

C. R. Hill

D. Borthwick et al.

Answer: A

Watch Video Solution

219. Flowering of Chrysanthemum is inhibited by

A. IAA

 $\mathsf{B.}\,GA_3$ 

C. Cytokinin

D. Ethylene.

# Answer: B Watch Video Solution 220. Bud dormancy is induced by A. IAA B. GA C. ABA D. Ethylene. Answer: C

**Watch Video Solution** 

221. Light inhibits seed germination of

A. Lactuca

B. Capsella

C. Allium

D. Tobacco

Answer: C

**Watch Video Solution** 

222. Growing trees and shrubs in small pots is

A. Bonsai

B. Culture

C. Green gardening

D. Tree culture.



**223.** Types of plants that come to flower after exposure to short photoperiods followed by long photoperiods

A. Intermediate plants

B. Day neutral plants

C. SLDP

D. LSDP.

Answer: C

224. Define meristem.

A. Allometry

B. Growth correction

C. Lag phase

D. Auxetic growth.

Answer: B

Watch Video Solution

225. Avena coleptile auxin is

A. IBA

B. Indole 3-lactic acid

C. Indole 2-acetic acid

D. Indole 3-acetic acid.

Answer: D

Watch Video Solution

226. Common inhibitor of seed germination is

A. GA

B. ABA

C. Pantothenic acid

D. Tartaric acid.

Answer: B

227. Fruit ripening is accelerated by

A. Ethylene

 $\mathsf{B.}\,SO_2$ 

 $\mathsf{C}.\,CO_2$ 

D. Nitrogen.

Answer: A



228. Vernalisation is

A. High light intensity

B. Low temperature

C. High temperature

D. Low light intensity.

#### Answer: B



**229.** Gibberellins promote the formation of <u>A</u>flowers on genetically <u>B</u> plants in Cannabis whereas ethylene promotes formation of C flowers on genetically D Cannabis plants.

A. Seed dormancy

B. Leaf fall

C. Seed germination

D. Root elongation.

#### Answer: C





230. Size of grapes increases in response to

A. Gibberellin

B. Auxin

C. Cytokinin

D. All the above.

#### Answer: A

Watch Video Solution

231. Define growth regulators.

A. Carbohydrates

**B.** Lipids

C. Proteins

D. Vitamins and minerals.

Answer: D



**232.** Plant growth hormones extracted from a fungus and a fish are respectively

A. Cytokinin

B. Gibberellin

C. Auxin

D. cytokinin

# Answer: B



Answer: B

**234.** The movement of pollen tube in the carpel towards the embryo sac is

A. Chemotropism

B. Hapototropism

C. Thigmotropism

D. Phototropism.

Answer: A

**Watch Video Solution** 

235. What is the role of auxin?

A. Prevents abscission of leaves and fruits

B. Promotes abscission of leaves and fruits

C. Promotes stomatal closure

D. Promotes dormancy.

#### Answer: A

**Watch Video Solution** 

236. Herbicides kill plants by inhibiting

A. PS I

B. PS II

C. Translocation

D. Both A and B.

Answer: B



237. In bryophytes and algae, lunaric acid replaces

A. Auxin

B. Gibberellin

C. Cytokinin

D. Abscisic acid.

Answer: D

**Watch Video Solution** 

238. Cytokinins

A. Cause leaf abscission

B. Delay leaf abscission

- C. Promote stomatal closing
- D. Promote seed dormancy.

### Answer: B

Watch Video Solution

239. Synthetic auxins are employed for

A. Ripening of fruits

B. Increasing size of fruits

C. Killing weeds

D. Preventing elongation of internodes

Answer: C

**240.** One set of a plant was grown at 12 hours day and 12 hours night period cycle and it flowered while in the other set night period cycles and it flowered while in the other set night phase was interrupted by flash of light and did not produce flower. Under which one of the following categories will you place this plant

A. Long day

B. Day neutral

C. Indeterminate

D. Short day.

Answer: D

241. Pruning of plants promotes branching because the axillary

buds get sensitized to

A. IAA

B. Ethylene

C. Gibberellin

D. Cytokinin.

Answer: B



**242.** Assertion: Photomodulation of flowering is phytochrome-regulated process.

Reason: Active form of phytochrome (Pfr) directly induces floral

induction in shoot buds.

A. Point out if both are true with reason being correct

explanation

B. both are true but reason is not correct explanation

C. assertion is true but reason is wrong

D. and both are wrong

Answer: B

> Watch Video Solution

243. Auxins promote

A. Apical dominance

B. Cambial acitivity

C. Cell growth

D. All the above.

Answer: A

**Watch Video Solution** 

244. Which hormone is responsible for apical growth

A. IAA

B. Abscisic acid

C. GA

D. All the above.

Answer: a

245. Parthenocarpic fruits cannot be produced by application of

A. IAA

B. 2, 4-D

C. ABA

D. IBA.

Answer: c



246. Seedless fruit is Banana is produced by

A. It reproduces asexually

B. It is sprayed by auxin

C. Both A and B

D. None of tha above.

Answer: A



247. Essential requirements for seed germination is

A.  $O_3$  and light

B.  $H_2O$  and  $O_2$ 

C.  $H_2O$  and high temperature

D. Scarification and vernalisation.

Answer: B

# 248. Which is used as a weedicide ?

A. IAA

B. NAA

 $\mathsf{C}.\,GA_3$ 

D. 2, 4-D.

Answer: D



249. Auxin causes cells to absorb water from hypertonic medium

because

A. It lower transpiration rate

B. It raises rate of cellular respiration for Providing ATP for

active water absorption

C. It increases solute potential of cells

D. It increases rate of transpiration

Answer: B

Watch Video Solution

250. Choose the correct alternative :

Movements induced in plants by external Movements induced in

plants by external

A. Spontaneous Movement

B. Autonomic movement

C. Physical movement

D. Paratonic movement.

#### Answer: D



251. IAA helps in formation of

A. Stem

B. Root

C. Fruit

D. Lateral buds.

Answer: B

252. Which of the following is a short day plant

A. Wheat

B. Barley

C. Larkspur

D. Dahlia/Xanthium.

Answer: D

Watch Video Solution

253. Short day plant is

A. Xanthium

B. Pisum

C. Cucumis

D. Avena.

Answer: A



- 254. Which statements are correct ?
- a Cytokinins suppress the synthesis of chlorophyll
- b Auxins control apical dominance
- c Gibberellins promote shoot elongation
- d Abscisic acid enables seeds to with-stand desiccation.

A. a and b only

B. b and c only

C. a and c only

D. b, c and d only

## Answer: D

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# 255. Match the columns and choose the correct combination :

Column I	Column II
(a) Auxin	(i) Colouring test in lemon
(b) Gibberellin	(ii) Cell division test in plants
(c) Cytokinin	$({ m iii})~{ m Avena}~{ m curvature}~{ m test}$
(d) Ethylene	$(\mathrm{iv}) \operatorname{Dwarf} \operatorname{corn} \operatorname{test}$

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

B. a - I, b - iv, c - ii, d - iii

C. a - iv, b - iii, c - I, d - ii

# Answer: A

**256.** \_\_\_\_\_ refers to suspension of growth due to exogenous control.

A. Quiescence

B. Dormancy

C. Perennation

D. Hibernation

Answer: A

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**257.** The shedding of leaves , flowers or fruit due to change in the hormonal balance in plant is referred as

A. Senescence

**B.** Abscission

C. Photoperiodism

D. Vernalisation.

Answer: B

Watch Video Solution

**258.** Leaf fall occurs in a tree when there is an increase in the concentration of

A. Gibberellin

B. Cytokinin

C. Auxin

D. Abscisic acid.



259. The ability of the Venus Flytrap to capture insects is due to

A. Specialised "muscle-like" cells

B. Chemical stimutation by prey

C. Rapid turgor pressure changes

D. Passive process requiring no special ability on the part of

the plant.

Answer: C

260. Gibberellin is a

A. Sterol

B. Vitamin

C. Suger

D. Protein.

Answer: A

Watch Video Solution

261. Which flower shows nyctinastic movement?

A. Albizzia lebbek

**B.** Pentapetes

C. Mimosa pudica

D. Bryophyllum.

Answer: B



262. Morphactins are derivatives of

A. Fluorine carboxylic acid

B. Fluromalic acid

C. Chlorofluorocarbons

D. Methanogens.

Answer: A

263. Which hormone is not translocated?

A. Auxin

B. Ethylene

C. ABA

D. Cytokinin.

Answer: C



**264.** Treatment of seed at low temperature under moist conditions to break its dormancy is called

A. Vernalisation

**B.** Chelation

C. Stratification

D. Scarification.

Answer: C

Watch Video Solution

265. How does pruning help in making the hedge dense?

A. It releases wound hormones

B. Apical shoot grows faster after pruning

C. It frees axillary buds from apical dominance

D. It induces differentiation of new shoots from rootstock.

Answer: C

**266.**  $\alpha$ -amylase synthesis is promoted by

A. IAA

B. GA

C. Cytokinin

D. NAA.

Answer: B

**Watch Video Solution** 

267. During which phase of growth, cell increases in volume

A. Exponential

B. Cell division
C. Differentiation

D. Enlargement.

Answer: A

**Watch Video Solution** 

268. Which ones are long day plants

А. Рорру

B. Xanthium

C. Paddy

D. Soyabean.

Answer: A

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269. The chemical nature of gibberellins is that they are

A. Proteinaceous

**B.** Amines

C. Acidic

D. Alkaline.

Answer: C



270. Assertion : Axillary buds, in actively growing herbaceous plants, generally remain dormantReason :This is due to apical dominance which is under the

influence of auxins

A. Tropical movements

**B.** Bolting

C. Parthenocarpy

D. Apical dominance.

Answer: B

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271. Abscisic acid controls/ promotes

A. Flower initiation

B. Triple response

C. Stem elongation

D. Detachment of leaf, flower and fruit.

### Answer: D



# 272. Avena curvature test is a bioassay for examining the activity



A. Auxin

B. Ethylene

C. Cytokinin

D. Gibberellin.

### Answer: A

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### 273. Match the columns :

	Ι		II
a	Phototaxis	1.	Circular movement
			${ m of\ protoplasm\ in}$
			$response \ to \ warm$
			condition
b	Thermotaxis	2.	Upward movement
			of floral organs
c	Chemotaxis	3.	Drooping of leaf
d	Hyponasty	4.	Movement of anther-
			ozoids towards
			archegonia
e	Seismonasty	5.	Movement of
			Chlamydomonas

A. (a) - (5), (b) - (4), (c) - (3), (d) - (2), (e) - (1)

B. (a) - (5), (b) - (1), (c) - (4), (d) - (4), (d) - (2), (e) - (3)

#### Answer: B

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**274.** Some plants have a habit of harbouring ants to save the

plants from damage by other animals which is known as

A. Anemophily

B. Entomophily

C. Myrmecophily

D. Hydrophily

#### Answer: C





275. Which one is wrongly matched ?

A. Auxins - to grow

B. Gibberellins-Gibberella fujikuroi

C. Cytokinins - Herring sperm DNA

D. ABA - flowering hormone.

#### Answer: D

Watch Video Solution

276. Which is not a function of cytokinin ?

A. Delay is senescence

- B. Breaking seed dormancy
- C. Promoting bud dormancy
- D. Promoting stomatal opening.

#### Answer: C



## 277. Auxins are abundantly produced in

A. Shoot

B. Meristematic region of stem/root

C. Root

D. Leaf buds.

Answer: B



# 278. Photoperiodism is associated with

## A. Auxin

B. Chlorophyll

C. Florigen

D. Gibberellin.

Answer: C

Watch Video Solution

279. Etiolation occurs when plants

A. Are grwon in dark

- B. Are grown in intense light
- C. Develop viral infection
- D. Develop mineral deficiency.

#### Answer: A



## 280. Leaf abscission is brought about by

A. Auxin

B. Cytokinin

C. Gibberellin

D. ABA.

Answer: D



# 281. Common biosynthetic inhibitor of GA is

A. CCC

B. Jasmonic acid

C. Citric acid

D. Lactic acid.

Answer: A



282. Cryptochrome is

A. Yellow light absorbing

- B. Pigment of cryptogams
- C. Red light absorbing pigment
- D. Blue-light absorbing pigment.

#### Answer: D



**283.** Seeds of some plants are unable to germinate even when conditions are favourable. This is called

A. Dormancy

B. Quiescence

C. Vivipary

D. Non-viability.



- A. Phototropism
- B. Phototaxis
- C. Photonasty
- D. Chemotaxis.

### Answer: C



**285.** Plants requiring exposure to light for less than critical period in order to flower are called

A. LDP

B. DN

C. IDP

D. SDP

Answer: D

**Watch Video Solution** 

286. Period between formative phase and maturation phase of

plant growth is

A. Lag phase

B. Phase of elongation

C. Stationary phase

D. Grand period of growth.

#### **Answer: B**



**287.** Given graph is drawn on the parameters of growth versus time. Here A,B and C respetively represent



A. Exponential phase, lag phase and steady state phase

- B. Steady state phase, lag phase and log phase
- C. Slow growing phase, lag phase, steady state phase
- D. Log phase lag phase and steady state phase.

Answer: B



**288.** Match the columns :

Column I	Column II
1 Human urine	${ m a  Cytokinin}$
2 Gibberella fufikuroi	b Auxin
$3{ m HerringfishDNA}$	${ m c}$ Ethylene
4 Ripening fruits	d abscisic acid
5 Aged leaves of plants	e Gibberellins
A. 1 - b, 2 - e, 3 - a, 4 - c,	5 - d
B. 1 - b, 2 - c, 3 - d, 4 - e,	5 - a
C. 1 - a, 2 - e, 3 - b, 4 - d,	5 - c
D 1-e 2-d 3-c 4-b	5 - 2

#### Answer: A

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289. The natural plant hormone isolated from cormn kernels and

coconut milk is

A. Florigen

 $\mathsf{B.}\,GA_3$ 

C. Free auxins

D. Zeatin.

Answer: D

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**290.** 6- furfuryl ammino purine 2, 4- dichorophenoxy acetic acid

and indole -3 - acetic acid are examples respectively for

A. Synthetic auxin, kinetin and natural auxin

B. Gibberellin, natural auxin and kinetin and synthetic auxin

C. Natural auxin, kinetin and synthetic auxin

D. Kinetin, synthetic auxin and natural auxin.

### Answer: D

Watch Video Solution

**291.** Which type of movement is shown by Tulip and Sunflower respectively ?

- A. Thermonasty and photonasty
- B. Hydronasty and photonasty
- C. Thigmonasty and photonasty
- D. Hydronasty and thermonasty.

Answer: A

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292. Which ones are long day plants

A. Wheat, Poppy, Soyabean

B. Wheat, Poppy, Beet

C. Wheat, Oat, Soyabean

D. Wheat, Xanthium, Paddy.

Answer: B

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293. Auxin develops at the tip of the stem. Its movement is

largely

A. Acropetal

**B.** Centropetal

C. Basipetal

D. Acropetal and basipetal.

#### Answer: C

**Watch Video Solution** 

294. The maximum growth rate occurs in

A. Lag phase

B. Senescent phase

C. Decline phase

D. Exponential phase.

Answer: D



**295.** Apical dominance is due to

A. Enzyme activity

B. Photoperiodism

C. Carbohydrate-nitrogen ratio

D. Balance between auxin and cytokinins.

Answer: D

**Watch Video Solution** 

296. Induction of cell division activity and delay in senescence is

caused by

A. Gibberellin

B. Auxin

C. Cytokinin

D. Ethylene.

Answer: C



297. Beta vulgaris is

A. SDP

B. LDP

C. DNP

D. IDP.

Answer: B



298. Rapid and dramatic increase in shoot length is

A. Bolting

B. Triple growth response

C. Scarification

D. light break reaction.

Answer: A

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299. Thigmonastic movement is found in

A. Albizzia

**B.** Oxalis

C. Drosera

D. Nepenthes.

Answer: C



# **300.** Pr state of phytochrome absorbs light wave-length of

A. 660 nm

B. 640 nm

C. 620 nm

D. 720 nm.

Answer: A



301. Which one is not correctly matched ?

A. Cytokinin-cell division

B. IAA-cell wall elongation

C. Abscisic acid-stomatal closure

D. Gibberellic acid-Leaf fall.

Answer: D

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302. Opening of floral buds into flowers, is a type of

A. Autonomic movement of variation

- B. Paratonic movement of growth
- C. Autonomic movement of growth
- D. Autonomic movement of locomotion.

#### Answer: C



**303.** The pineapple which under natural condition is difficult to blossom has been made to produce fruits throughout the year by application of

A. IAA, IBA

B. NAA, 2, 4-D

C. Phenyl acetic acid

D. Cytokinins.

### Answer: B

Watch Video Solution 304. Nutation is shown by A. Root B. Stem C. Tendrils D. Leaves.

Answer: C



305. Which method makes the seed coat permeable and allows

growth of embryo ?

A. Scarification

**B. Stratification** 

C. Vernalisation

D. Denudation.

Answer: A



**306.** Assertion. Phase of cell division is also known as formative phase.

Reason. In Formative phase new cells are produced from preexisting cells through meiosis. A. if both are true with reason being correct explanation

B. both true but reason not correct explanation

C. assertion true but reason wrong

D. both are wrong.

Answer: C

Watch Video Solution

**307.** The phyohormone which induces triple respone is

A. IAA

B. ABA

 $C. GA_3$ 

 $\mathsf{D.}\, C_2H_4.$ 

Answer: D				
<b>Vatch Video Solution</b>				

308. An example of short day plant is

A. potato

B. Radish

C. Chrysanthemum

D. Wheat

Answer: C



**309.** One hormone helps in ripening of fruits and other brings about stomatal closure. They are respectively

A. ABA, IAA

B.  $C_2H_4$ , ABA

C. ABA, ethylene

D.  $C_2H_2$ , GA

Answer: B

**Watch Video Solution** 

310. Pick up correct statements

(A) Cytokinins delay senescence

(B) Auxin regulate apical dominance

- (C) Ethylene enhances seed germination
- (D) Gibberellins cause falling of immature leaves.

A. a, c B. a,d C. a, b

D.b,c

# Answer: C

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# **311.** Match the columns and find the correct combination :

Ι

a

II

- Auxin 1. Herring sperm DNA
- b Cytokinin 2 Inhibitor of growth
- c Gibberellin 3. Apical dominance
- d Ethylene 4. Epinasty
- e abscisic acid 5. Induces amylase synthesis

Answer: A

**Watch Video Solution** 

**312.** Seed dormancy is caused by

A. ABA

B. GA

C. Ethylene

D. Cytokinin.



313. Importance of day length ( photoperiodism ) in flowering of

plants was first shown in

A. Cotton

B. Tobacco

C. Lemna

D. Petunia

Answer: B

Watch Video Solution

314. Growth in internodal regions of green plants is due to

A. Ethylene

**B.** Cytokinins

C. Gibberellins

D. IAA.

Answer: C

Watch Video Solution

315. Growth promoting hormone is

A. 2, 4-D

B. ABA

C. Gibberellin
D. IAA.

Answer: D



316. Find the correct statements

- 1. Causal organism of foolish seedling disease is source of gibberellin
- 2. Absicisic acid is growth promoter
- 3. Ratio of auxin to cytokinin controls differentiation
- 4. Bolting of cabbage can be induced by treatment with IAA
  - A. 1, 2, 3 correct
  - B. 1, 2 correct
  - C. 2, 4 correct

D. 1, 3 correct.

#### Answer: D



**317.** Statement a. Auxins promote apical dominance by suppressing activity of lateral buds.

Statement b. In moricultrue, periodic pruning of shoot tips is done to make Mulberry plants bushy.

A. a and b correct with a being reason for b

B. a is correct, b is wrong

C. a is wrong, b is correct

D. Both a and b correct but a is not reason for b.

#### Answer: D



318. Ethylene is metabolic product of

A. Valine

B. Serine

C. Methionine

D. Glutamic acid.

Answer: C

Watch Video Solution

319. Which one is derivative of a carotenoid

B. ABA

C. IBA

D. GA.

Answer: B



# 320. Exponential growth occur in

A. Yeast

B. Bacteria

C. Asexual reproduction

D. All the above.

Answer: D



321. In signoid growth curve, upper asymptote represents period

of

A. Establishment

B. Negative accelertion

C. Positive acceleration

D. Equilibrium.

Answer: D

Watch Video Solution

**322.** Discovery of gibberellin is related to

- A. Blast disease of Rice
- B. Early blight of Potato
- C. Bakane disease of Rice
- D. Rust of Wheat.

#### Answer: C



# 323. Match the following and chose the correct combination

- Column I ColumnII
- A Zeatin 1 flowering hormone
- B Florigen 2 synthethic auxin
- $C \quad IBA \qquad 3 \quad {
  m cytokinin}$
- D NAA 4 Natural auxin

A. a - 3, b - 1, c - 4, d - 2

B. a - 4, b - 1, c - 2, d - 3

C. a - 3, b - 4, c - 1, d - 2

D. a - 2, b - 1, c - 4, d - 3

Answer: A

Watch Video Solution

324. Find the correct combination

(A) DCMU .......Herbicide......Inhibitor of non-cyclic electron

transport

(B) PMA......Fungicide......Reduces transpiration

(C) Colchicine......Alkaloid......Causes male sterility

(D) Solnite-Sodium alginate.....Encapsulation of somatic embryos.

A. a, b

B.a,c

C. b, c

D.b,d

Answer: A

Watch Video Solution

**325.** Identify two physiological process induced by two different phytoharmones having a common precurer which is formed due to the catlytic activity of pyruvic dehydrogenous complex (I) More female flowers in cucumber (II)  $\alpha$ -amylase production in barely grain Acceleration of fruit ripening in tomato (IV) Delay in sprouting of potato tubers The correct combination is B.a,c

C. c, d

D. b, d.

Answer: D



326. Choose the correct sequence of stages of growth curve for

bacteria

A. Lag, log, stationary

B. Log, lag, stationary

C. Log, stationary, lag

D. Stationary, log, lag.



327. Biennials get changed into annuals by

A. Hormones

B. Photoperiodism

C. Grafting

D. Vernalisation.

Answer: D



328. The process of vernalisation is

A. Aerobic

B. Anaerobic

C. Unaffected by aerobic or unaerobic conditions

D. Dependent upon starvation conditions.

Answer: A

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329. A plant growing in complete darkness shows

A. Vernalisation

**B. Etiolation** 

C. Chlorosis

D. Wilting.

Answer: B						
Watch Video Solution						
<b>330.</b> Ageing of leaves and shoots is called						
A. Chlorosis						

B. Wilting

C. Senescence

D. Necrosis.

Answer: C



**331.** Which one of the following synthetic growth regulators is used to promote synchronized flowering in pineapple

A. Indole butyric acid

B. Phenyl mercuric acetate

C. Benzyl aminopurine

D. 2-Chloroethyl phosphonic acid.

# Answer: D



332. Which one the following plant function is not generally

governed or controlled by auxin

A. Apical dominance

**B.** Photosynthesis

C. Photoperiodism

D. Growth

Answer: B



**333.** Response of plants due to reversibole turgor change in pulvinus as a result of touch is

A. Photonasty

B. Thermonasty

C. Seismonasty

D. Chemonasty.

# Answer: C Watch Video Solution

**334.** Cytokinins which have specific effect in cytokinesis are

modified forms of

A. Cytosine

B. Adenine

C. Guanine

D. Thiamine.

**Answer: B** 

Watch Video Solution

335. One of the commonly used plant growth hormone in tea

plantations is

A. Zeatin

B. ABA

C. IAA

D. Ethylene.

Answer: C

**Watch Video Solution** 

336. Which locomotory movement is not correct with respect to

movement

A. Cyclosis and rotation of cytoplasm in Hydrilla

- B. Sucrose induced movement of sperms
- C. Flagellar movement of slime mould
- D. Chlamydomonas moves away from intense light.

#### Answer: C

Watch Video Solution

**337.** Which one demonstrates process associated with abscission of a leaf

A. In the leaf concentration of both auxin and ABA decreases

B. In the leaf concentration of both auxin and ABA increases

C. Reduction in ABA concentration and increase of auxin

concentration in the leaf

D. Reduction in concentration of auxin and increase of

concentration of ABA in the leaf.

Answer: D

Watch Video Solution

338. Falling of floral parts, leaves and fruits from the mother

plant is called

A. Senescence

**B.** Abscission

C. Photoperiodism

D. Vernalisation.

Answer: B





339. Seismonasty occurs in

A. Sammanea saman

B. Albizzia lebbek

C. Hibiscus rosa-sinensis

D. Mimosa pudica.

#### Answer: D

Watch Video Solution

340. Seeds of winter varieties are benefitted by technique

A. Senescence

B. Photoperiodism

C. Vernalisation

D. Abscission.

#### Answer: C



# 341. Transport of Cytokinin in the plant body is

A. Basipetal

B. Lateral

C. Acropetal

D. On all sides.

Answer: C



342. Which one hastens flowering in plants

A. Stratification

**B.** Scarification

C. Vernalisation

D. Water deficit.

Answer: C

Watch Video Solution

343. The first to activate dormant embryo is

A. Oxygen

**B.** Moisture

C. Hormones

D. Nutrients.

Answer: B



344. Which hormone is produced in most plant cells as product

of metabolism

A. Gibberellin

B. Cytokinin

C. Auxin

D. Ethylene.

# Answer: D

# **Watch Video Solution**

# 345. Find out correct options :

	т		тт		тт
	1		11		111
a	Foolish Plant	p	Volatile	x	Induces
b	Induces senescence	q	abscisic acid	y	Ripens fruit
		r	Gibberella	z	Usually sterile plant
	A. a - p - y, b - r - x				
	B. a - r -z, b - q - z				
	Carrzh-n-v				
	с. ч г 2, в р у				
	D. a - q - x, b - r - y.				

# Answer: C

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346. Auxanometer is used to measure plant organ

A. Growth in length

B. Growth in breadth

C. Pest population

D. Both A and B.

Answer: A

Watch Video Solution

347. Day neutral plant

A. Lose activity during day time

B. Flower in all possible photoperiods

C. Become overactive during day time

D. Do not flower in any photoperiod.

Answer: B

**Watch Video Solution** 

348. Study of phototropic lead to the discovery of

A. Cytokinin

B. Ethylene

C. Gibberellin

D. Auxin.

Answer: D

Watch Video Solution

349. Vernalisation is seen in

A. Sugarbeet

B. Carrot

C. Cabbage

D. All the above.

Answer: D

Watch Video Solution

350. The rosette habit of cabbage can be changed by applicaton

of

A. ABA

B. IAA

C. GA

D. Ethephon.

Answer: C

**Watch Video Solution** 

351. Exponential growth is expressed as

A. 
$$Lt = L_0 + rt$$

$$\mathsf{B.}\,L_0=Le^{rt}$$

C. 
$$W_1 = W_0 + e^{rt}$$

$$\mathsf{D}.\,W_0=W_1e^{rt}$$

Answer: C



352. Which is incorrectly matched

A. Adenine derivative-Kinetin

**B.** Terpenes-IAA

C. Carotenoid derivative- ABA

D. Indole compounds-IBA

Answer: B

**Watch Video Solution** 

353. Natural cytokinins are synthesised in tissues that are

A. Strong food

B. Differentiating

C. Dividing

D. Senescent.

Answer: C

Watch Video Solution

**354.** Assertion: Plant growth as a whole is indefinite.

Reason : Plants retain the capacity of continuous growth throughout their life.

A. Point out if both are true with reason being correct

explanation

B. both are true but reason is not correct explanation

C. assertion is true but reason is wrong

D. and both are wrong

# Answer: A Watch Video Solution

355. Which is essential for flowering

A. Phytochrome

B. Chlorophyll

C. Cytochrome

D. Leghaemoglobin.

Answer: A



356. Through their effect on plant growth regiulators, what do

the temperature and light control in the plants

A. Stomatal closure

**B.** Apical dominance

C. Flowering

D. Fruit development.

Answer: C

**Watch Video Solution** 

357. Hormone antagonist to gibberellins is

A. IAA

B. ABA

C. Zeatin

D. Ethylene.

Answer: B

**Watch Video Solution** 

358. Vernalisation simulates flowering in

A. Ginger

B. Turmeric

C. Zamikand

D. Carrot.

Answer: D



**359.** Growth hormone that speeds up malting in brewery industry is

A. Kinetin

B. Gibberellic acid

C. Auxin

D. Ethylene.

Answer: B

Watch Video Solution

**360.** The natural plant hormone isolated from corn kernels and coconut milk is

A. Florigen

 $\mathsf{B.}\,GA_3$ 

C. Auxin

D. Zeatin.

Answer: D

Watch Video Solution

**361.** One harmone is used to speed up the malting process in barley, another is used to promote flowering in pineapple, while the third helps in the delay of leaf senescence. These are respectively

A. Auxin, Gibberellin and Cytokinin

B. Gibberellin, Cytokinin, Auxin

C. Gibberellin, Auxin, Cyctokinin

D. Cytokinin, Auxin, Gibberellin

#### Answer: C

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362. Which of the following is not a physiological effect/ an

influence of auxin

A. Promotes bolting

B. Prevents early fruit and leaf drop

C. Promotes flowering

D. Initiates rooting in stem cuttings

#### Answer: A



**363.** The phenomenon which shortens vegetative period and hastens flowering is

A. Etiolation

**B.** Vernalisation

C. Photoperiodism

D. Parthenocarpy.

Answer: B



364. Abscisic acid is called stress hormone as it
A. Induces flowering

- B. Breaks seed dormancy
- C. Promotes leaf fall
- D. Promotes stomatal closure.

Answer: D

**Watch Video Solution** 

365. Hormone antagonistic ABA is

A. Gibberellin

B. Auxin

C. Ethylene

D. Cytokinin.

Watch Video Solution

**366.** Two different plants associated with discovery of two different phytohormones having commone biosynthetic precursor exhibit one of the following characters each I. Versatile anthers II. Compound spadix III. Pentalocular ovary IV.

Trifoliate compound leaves

A. II and III

B. I and III

C. II and IV

D. I and IV.

Answer: B





# 367. During seed germination its stored food is mobilized by

A. Gibberellin

B. Ethylene

C. Cytokinin

D. ABA.

Answer: A

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368. Viability of the seed is tested with

A. 2, 3, 5-triphenyl tetrazolium chloride

**B. DMSO** 

C. Safranine

D. 2, 6-dichlorophenol indophenols.

### Answer: A

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**369.** In exponential growth formula,  $W_t = W_0 e^{rt}, e$  denotes

A. Final size

B. Time of growth

C. Base of natural logarithm

D. Growth rate.

Answer: C



# 370. Which plant hormone was discovered as kinetin

A. ABA

B. Ethylene

C. Auxin

D. Cytokinin.

Answer: D

Watch Video Solution

371. Match the columns and choose the correct combination :

Ι

## Π

- (a) Cytokinin (p) Stress hormone
- (b) Auxins (q) Ripening of fruits
- (c) abscisic acid (r) Apical dominance
- (d) Ethylene (s) Bolting
  - (t) Richmond-Lang Effect
  - A. a-t, b-r, c-p, d-q
  - B. a-t, b-r, c-p, d-s
  - C. a-r, b-s, c-q, d-p
  - D. a-q, b-s, c-t, d-r
- **Answer: A**



372. Which growth regulator promotes root initiation, flowering

and induced parthenocarpy

A. Gibberellin

B. Auxin

C. Cytokinin

D. Ethylene.

Answer: B

**Watch Video Solution** 

373. Assertion. On plotting the length of the root against time, a

linear curve is obtained

Reason. An elongating root exemplifies arithmetic growth

A. Point out if both are true with reason being correct

explanation

B. both true but reason not correct explanation

C. assertion true but reason wrong

D. both are wrong.

Answer: A

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374. Which plant hormone is basic in nature

A. Gibberellin

B. Auxin

C. Ethylene

D. Cytokinin.

## Answer: D



# 375. Select the activites associated with gibberellins

- (a) Apical dominance
- (b) Good herbicides
- (c) Promote bolting
- (d) Delay senescence
- (e) Stimulate closure of stomata.

A. a and b only

- B. b and c only
- C. b and d only

D. c and d only.

#### Answer: D

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## 376. Match the columus and choose the correct combination

Growth Regulator

- (b) Ethylene

- Action
- (a) abscisic aicd (1) Delays leaf abscission
  - (2) Inhibits seed germination
- (c) Cytokinin
  - (3) Herbicide
- (d) Auxin

(4) Hastens fruit ripening

A. a-2, b-4, c-1, d-3

B. a-1, b-2, c-3, d-4

C. a-2, b-3, c-4, d-1

D. a-2, b-1, c-3, d-4



**377.** In which plant heterophyllous development occurs due to environment

A. Coriander

B. Cotton

C. Larkspur

D. Buttercup

Answer: D

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378. Which statement regarding growth is false

A. Increase in mass and increase in number of individuals are

twin characteristics of growth

B. In plants, growth by cell division is seen only upto a

certain stage

C. Growth exhibited by nonliving objects is by accumulation

of material on the surface

D. A multicellular organism grows by cell division

### Answer: B



379. Thermonastic movement is related to

A. Light

B. Touch

C. Chemical

D. High temperature.

Answer: D

Watch Video Solution

380. Control of leaf, flower and fruit abscission and promotion of

fruit ripening are functions of

A. Ethylene

B. Auxin

C. Gibberellin

D. Cytokinin.

Answer: A
Watch Video Solution
<b>381.</b> Removal of apical bud makes the plant
A. Tall
B. Bushy
C. Slow
D. Rapidly
Answer: B



**382.** Cell wall thickening, protoplasmic modification, and functional specialization are observed in which phase of growth?

A. Meristematic phase

B. Elongation phase

C. Maturation phase

D. None of the above.

Answer: C

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**383.** Spraying sugarcane crop with a plant hormone increases length of plants and increases yield by as much as 20 tonnes/acre. The hormone is

A. Gibberellin

B. Auxin

C. Cytokinin

D. ABA.

Answer: A

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384. Length of stalks of grape fruits increases due to

A. Auxin

**B.** Cytokinins

C. Ethylene

D. Gibberellin.

Answer: D		
Watch Video Solution		
<b>295</b> Which and is growth regulator produced by plants		
<b>565.</b> Which one is growth regulator produced by plants		
A. NAA		

B. Zeatin

C. 2, 4-D

D. BAP.

Answer: B



386. Match the columns and choose the correct option

I	II
(p) Control of weeds	(i) Gibberellin
(q) Induction of	(ii) Cytokinin
germination	
$(\mathbf{r})$ Ripening of fruit	(iii) 2, 4-D
(s) Delaying of senescence	(iv) Ethylene
A. $p-ii, q-iv, r-iii,$	s-i

B. p-iii, q-i, r-iv, s-ii

C. 
$$p-i, q-ii, r-iv, s-ii$$

D. 
$$p-ii, q-iii, r-i, s-iv$$

#### Answer: B



387. Apical dominance in plants means

A. Growth of lateral buds

B. Inhibition of growth of lateral buds

C. Both A and B

D. None of the above.

**Answer: B** 

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388. Match the lists and find the correct options

1	11
(a) Early seed production	(i) Indole
in conifers	substance
(b) Seed development	(ii) Terpene substance
	maturation
(c) Lateral shoot growth	(iii) Volatile substance
(d) Root hair formation	(iv) Adenine derivative

(v) Carotenoid derivative

A. 
$$a - iii, b - i, c - v, d - ii$$

B. 
$$a-ii, b-v, c-iv, d-iii$$

C. 
$$a-ii, b-i, c-v, d-iv$$

$$\mathsf{D}.\,a-iv,b-iii,c-ii,d-i$$

#### **Answer: B**

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389. What is the site of perception of photoperiod necessary for

induction of flowering in plants

A. Stem

B. Leaves

C. Shoot apex

D. Floral meristem.



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**390.** If a plant produces flowers when exposed to alternating periods of 5 hours light and 3 hours dark in a 24-hour cycle, the plant should be a

A. SDP

B. LDP

C. SLDP

D. DNP.

Answer: B

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**391.** A bacterium divides every 35 minutes. If a culture containing 105 cells per ml is grown for 175 minutes, what will be the cell concentration per ml after 175 minutes ?

- A.  $175 imes 10^5$  cells/ml
- B.  $35 imes 10^5$  cells/ml
- $\text{C.}~5\times10^5~\text{cells/ml}$
- D.  $32 imes 10^5$  cells/ml.

## Answer: D



392. Cytokinin is not found in

A. Root apex

B. Shoot apex

C. Young fruits

D. Mature fruits.

### Answer: B



## 393. Senescence in plants leads into .....of cells

A. Increase in size

B. Increase in number

C. Death

D. Differentiation.

Answer: C



# **394.** Which of the following is a dicot weedicide

A. 2, 4-D

B. NAA

C. IBA

D. IAA.

Answer: A

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**395.** One hormone hastens maturity period in juvenile conifers, a second hormone controls xylem differentiation, while the third

hormone increases the tolerance of plants to various stresses.

They are respectively :

A. Auxin, gibberellin and cytokinin

B. Gibberellin, auxin, cytokinin

C. Gibberellin, auxin, ethylene

D. Gibberellin, auxin, ABA

## Answer: D



396. Which is not the effect of ethylene

A. Promotes senescence and abscission of plant organs

B. Breaks seed and bud dormancy

C. Brings about horizontal growth of seedlings

D. Helps to overcome apical dominance.

Answer: D

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**397.** A few normal seedling of tomato were kept in a dark room. After a few days were found to have become white coloured like albinos. Which of the following terms will you use to describe them

A. Embolised

**B. Etiolated** 

C. Defoliated

D. Mutated.

## Answer: B

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**398.** Dr. F. Went noted that if coleoptile tips were removed and placed on agar for one hour , the agar would produce a bending when placed on one side of freshly cut coleoptile stumps .Of what sighifcance is this exeriment

- A. It is basis of quantitative determination of small amounts
  - of growth promoting substances
- B. It supports the hypothesis that IAA is auxin
- C. It demonstrated polar movement of auxins
- D. It made possible the isolation and exact identification of auxin.



399. Vernalisation is carried out in plants growing in

A. Tropical areas

B. Subtropical area

C. Temperate areas

D. Hot/arctic areas.

Answer: C



**400.** Gibberellins can promote seed germination because of their influence on

A. Rate of cell division

B. Production of hydrolysing enzymes

C. Synthesis of abscisic acid

D. Absorption of water through hard seed coat.

Answer: B

**Watch Video Solution** 

401. Assertion.Plant growth regulators are very important for

plant growth and development

Reason. Auxins do not induce flowering in gymnosperms.

A. Point out if both are true with reason being correct

explanation

B. both true but reason not correct explanation

C. assertion true but reason wrong

D. both are wrong.

Answer: B

Watch Video Solution

402. Abscisic acid causes

A. Faster leaf fall

B. Dormancy of buds and seeds

C. Retardation of growth

D. All the above.

Answer: D



**403.** The characteristics like expansion, breaking dormancy, promoting germination and flowering are associated with

A. Auxins

B. Gibberellins

C. Cytokinins

D. Ethylene.

Answer: B



**404.** Which amongst the following is a natural growth regulator

A. 2, 4-D

B. Benzaldehyde

C. NAA

D. Ethylene.

Answer: D

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405. 6-(4-Hydroxy-3 Methyl-trans-2-butenylamine) purine is also

called

A. Methyl jasmonate

B. Zeatin

C. Brassinolide

D. Triacontanol.

Answer: B



# 406. Cholodony and Went effect is due to

(a) IAA

(b) GA

(c) Cytokinin

(d) ABA

A. IAA

B. GA

C. Cytokinin

D. ABA.

Answer: A

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407. The hormone which reduces transpiration rate by inducing

stomatal closure is

A. Ethylene

B. Gibberellin

C. ABA

D. Cytokinin.

Answer: C



408. Bolting means

A. Elongation of stem in rosette plants

B. Dwarfing of stem

C. Increase in flowers.

D. Appearance of flowers.

## Answer: A

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409. Phytochrome responsible for flowering is

A. Pigment present in floral buds

- B. Hormone present in leaves
- C. Pigment present is leaves
- D. Enzymes present in floral buds.

### Answer: C



# **410.** The primary and secondary growth of a shoot inhibited by

A. Auxin

B. Gibberellin

C. Cytokinin

D. Abscisic acid.

Answer: D


411. The pigment that absorbs red and far-red light in plants, is

A. Cytochrome

B. Xanthophyll

C. Phytochrome

D. Carotene.

Answer: C

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412. Which one is correct for blooming of short day plants

A. The long dark period is not critical

B. It is affected by interruption of long dark period by brief

exposure of light

C. It is affected if continuous light period is interrupted.

D. It is affected if continuous light period is interrupted.

**Answer: A** 

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413. Select the correctly matched pair

A. Darwin and Darwin - Gibberellic acid

B. Went - Auxin

C. Kurosawa - Ethylene

D. Skoog and Miller - Abscisic acid

# Answer: B

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**414.** One hormone stimulates the closure of stomata and another one influences the swelling of the axis in dicot plants. They are

- A. Gibberllins and ethylene
- B. Abscisic acid and cytokinins
- C. Gibberellins and cytokinins
- D. Abscisic acid and ethylene.

Answer: D

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**415.** Which of the following statements regarding photoperiodism is false

A. The response of plants to periods of light/day is termed as photoperiodism

B. The shoot apices cannot perceive photoperiods

C. In day neutral plants there is no correlation between

exposure to light duration and induction of flowering

response

D. The site of perception of light/dark duration is the flower.

Answer: D

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**416.** The hormone that promotes rapid elongation of intermodes or leaf base in deep water rice plant is ......

A. Abscisic aicd

B. Ethylene

C. Cytokinin

D. Gibberellin.

Answer: B

**Watch Video Solution** 

417. Assertion (A). Ethylene induces ripening

Reason (R). Ethylene is a gaseous hormone

A. A and R are true, R is correct explanation of A

B. A and R are true but R is not the correct explanation

C. A is true, R is false

D. A is false, R is true.

#### Answer: A



- **418.** Identify the correct pair of combination
- (i) Zeatin adenine derivative overcoming apical dominance
- (ii)  $C_2H_4$  indole compound effective in fruit ripening
- (iii) ABA carotenoid derivative induction of parthenocarpy
- (iv)  $Ga_3$  terpene bolting in cabbage

A. ii, iii

B. ii, iv

C. i, iv

D. iii, iv.

### Answer: C

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419. Match the columns and find the correct option

- (a) Munch
  (i) Stomatal movement
  (b) Darwin
  (ii) Hasterns fruit ripening by volatiles
   (c) Cousins
   (iii) Growth of coleoptile
- (d) Levitt (iv) Nature of enzyme action
  - (v) Bidirectional transport in pholem

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

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

C. 
$$a-v, b-iii, c-ii, d-i$$

D. 
$$a-iii, b-i, c-iv, d-v$$

### Answer: C

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420. Gibberellin facilitates seed germination by triggering the

synthesis of

A.  $\alpha$ -amylase

B.  $\beta$ -amylase

C. Both A and B

D.  $\alpha$ -amylase and protease.

#### Answer: D



421. The inhibitory effect of red light on flowering during critical

dark period in short day plants can be overcome by

A. Blue light

B. Far-red light

C. Infra-red rays

D. Ultraviolet rays.

Answer: B



422. In hyponasty, the bud will remain

A. Open

B. Closed

C. Semi-open

D. Wilt.

Answer: B

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423. Seed dormancy can be broken by

A. ABA and  $GA_3$ 

B.  $GA_3$  and ethylene

C. IAA and ABA

D. ABA and IPA.



424. Plants which disregard the requirement of a definite day

length for flowering are called

A. Short day plants

B. Long day plants

C. Day neutral plants

D. Long-short day plants.

Answer: C

Watch Video Solution

425. Seedless fruits can be induced by

A. ABA and IAA

B. ABA and Zeatin

C. IAA and  $GA_3$ 

D. Ethylene and ABA.

Answer: B

Watch Video Solution

426. Seed dormancy can be broken by the following combination

of chemicals

A.  $GA_3$ , IAA, ABA

B.  $KNO_3, GA_3$  and ethylene chlorohydrin

C. NAA, 2, 4, 5-T and IAA

D. ABA, BAP and  $GA_3$ 

Answer: B

**Watch Video Solution** 

427. Which of the following are related to the process of

flowering

A. Gibberellin

B. ABA

C. Both A and B

D. Kinetin.

Answer: C





428. Which of the following is not a natural auxin

A. Indole acetic acid

B. Naphthalene acetic acid

C. Indole acetaldehyde

D. Indole ethanol.

#### Answer: B

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429. Biosynthesis of cytokinin takes place via

A. Mevalonic acid cycle

B. Citric acid cycle

C. Calvin cycle

D.  $C_4$  cycle.

Answer: A



**430.** If a short day plant is given ten hours light and fourteen hour darkness but the dark period is interrupted in the middle by a flash of 730 nm wavelength of light, then

A. Production of flower is delayed

B. The plant produces flowers

C. The plant does not produce flowers

D. The plant will produce parthenocarpic fruits.

# Answer: B

# **Watch Video Solution**

# 431. Match and find the correct match

Ι	II
(a) 2, 4-D	(i) Promotion of lateral
	shoot growth
(b) GA <sub>3</sub>	(ii) Thinning in cotton
(c) Ethephone	(iii) Stress tolerance
(d) ABA	(iv) Brewing industry
	(v) Weed free lawns

A. 
$$a-ii, b-i, c-v, d-iii$$

$$\mathsf{B.}\,a-v,b-iv,c-ii,d-iii$$

 $\mathsf{C}.\,a-v,b-iv,c-i,d-iii$ 

D. 
$$a-iii, b-ii, c-i, d-iv$$

#### **Answer: B**



**432.** Horizontal growth of seedlings, swelling of axis and apical hook formation in dicot seedlings is brought about by

A. Auxin

**B. Gibberellins** 

C. Ethylene

D. Kinetin.

Answer: C



433. The cells derived from meristems differentiate and regain

the capacity of divide by a phenomenon called

A. Differentiation

**B. Dedifferentiation** 

C. Redifferentiation

D. Totipotency

**Answer: B** 

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**434.** Identify the incorrect statement about ABA growth regulator

A. It increases the tolerance of plants against different stresses

B. It acts as general plant growth inhibitor and inhibitor of

metabolism

C. It helps in seed maturation and dormancy

D. It promotes morphogenesis and differentiation of shoots.

Answer: D

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435. Fruit and leaf drop at early stages can be prevented by the

application of

A. Cytokinins

B. Ethylene

C. Auxin

D. Gibberellic acid.

Answer: C





#### Answer:



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**2.** Phytochrome  $P_{\mathrm{fr}}$  is

- A. Yellowish green
- B. Blue
- C. Found in cytosol
- D. Active at light wavelength of less than 550 nm.

### Answer:



- 3. The long-day plant is
  - A. Xanthium
  - B. Chrysanthemum
  - C. Radish
  - D. Tomato.

# Answer: C

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4. Lemna/Wolffia is

A. Short day plants

B. Long day plants

C. Day neutal plant

D. Long-short day plant.

Answer: A



5. Ageing of leaves is promoted by

A. Ethylene

B. Abscisic acid

C. Cytokinins

D. Auxin.

Answer: B

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6. Bolting hormone is

A. Auxin

B. Cytokinin

C. Gibberellin

D. Ethylene.

# Answer:

• Watch Video Solution 7. Traumatin is A. Auxin

B. Gibberellin

C. Cytokinin

D. Abscisic acid.

Answer: D



8. The most common cytokinin is

- A. Isopentanyle adenine
- B. Kinetin
- C. Dihydrozeatin

D. IPA.

Answer: a

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- 9. Pomalin used for increasing Apple size is
  - A. Auxin
  - B. Mixture of auxin and gibberellin
  - C. Mixture of auxin and cytokinin
  - D. Mixture of cytokinin and gibberellin

# Answer:

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10. The hormone synthesised by root and transported to shoot

apex is

A. Gibberellin

B. ABA

C. Cytokinin

D. Auxin.

Answer: D

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**11.** In which light induced process, phytochrome is not the photoreceptor

A. Photoperiodism

B. Phototropism

C. Straightening of subterminal hook

D. Bud dormancy.

# Answer:

**O** Watch Video Solution

12. Movement of peristome teeth in Moss is

A. Hydrochasy

B. Xerochasy

C. Chemotactic

D. Chemotropism

### Answer:

**Watch Video Solution** 

**13.** Apical dominance of root tip is probably due to

A. Cytokinin

B. IAA-oxidase

C. Abscisic acid

D. Both B and C.

Answer: B



14. Expansion of a leaf is an example of

A. Nutation

B. Nastic movement

C. Ephemeral movement

D. Paratonic movement.

Answer: A

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**15.** Development of haustoria of Cuscuta into host is

A. Thigmotropism

B. Thigmonasty

C. Chemonasty

D. Chemotropism,

### Answer:

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16. Opening and closing of flowers represent a kind of

A. Photonastic movement

B. Geotropism

C. Thermonasty

D. Nyctinasty.

Answer: a



17. Veriation of response to geotropism is found in the floral

stalk of

A. Sunflower

B. Groundnut

С. Рорру

D. Both B and C.

Answer: B

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18. Movements of tentacles in Drosera are

A. Thigmonasty

B. Thigmotropism

C. Chemotropism

D. Phototropism.

Answer: A



19. Statolith theory is related to

A. Phototropism

B. Chemotropism

C. Hydrotropism

D. Geotropism.

Answer: D



**20.** Cholodny-Went theory is connected with

A. Turgor movements

B. Chemotropism

C. Photoropism

D. Phototropism and geotropism.

Answer: C

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**Brain Teasers Iv** 

**1.** A characteristic based on concentration of particles in solution is

A. Colligative property

**B.** Surface tension

C. Colloidal nature

D. All the above.

Answer: A

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2. Which one is a colligative property ?

A. Cohesion force

B. Osmotic pressure

C. Vapour pressure

D. Both B and C.

Answer: D

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3. Flaccidity is

A. Distended nature of plant cell

B. Percentage gain in volume of celll due to endosmosis

C. Loss of turgidity

D. Volume of cell in isotonic solution.

Answer: C

4. Turgor operated valves are

A. Root hairs

B. Stomata

C. Tracheary elements

D. Collenchyma.

Answer: B



5. Fully turgid cell possesses

A. Minimum size

B. Little permeability
C. Maximum size

D. Impermeable nature.

## Answer: C

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6. At zero turgor pressure the cell shows

A. Evident plasmolysis

B. Incipient plasmolysis

C. Limiting plasmolysis

D. Deplasmolysis.

Answer: C



7. A freshly plasmolysed cell has

A. Little solute potential

B. Maximum turgor pressure

C. Zero turgor pressure

D. Negative turgor pressure.

#### Answer: D



8. Maximum solute pressure occurs in a cell with

A. Maximum size

**B.** Plasmolysis

C. Full turgidity

D. Little or no vacuole

#### Answer: B

Watch Video Solution

9. A fully turgid cell has

A. Minimum cell size

B. Minimum water content

C. Maximum solute pressure

D. Minimum solute pressure.

Answer: D



**10.** Minimum solute potential means

A. More negative solute potential

B. Minimum solute concentration

C. Maximum turgidty

D. Both B and C.

Answer: A

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11. Soil water available to plants is

A. Holard

B. Echard

C. Chresard

D. None of the above.

## Answer: C

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12. Chresard occurs in the soil

A. Around soil particles

B. Inside micropores

C. Inside macropores

D. In percolation chambers.

### Answer: B



13. Capillary pores are

A. Percolation pores

**B.** Macropores

C. Micropores

D. Ultra-micropores.

Answer: C

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14. Soil pores with capillary water are

A. Super pores

**B.** Macropores

C. Mesopores

D. Micropores.

Answer: D

Watch Video Solution

15. Total water content present in a soil is called

A. Echard

B. Holard

C. Cavitation

D. Both B and C.

Answer: B



16. Percolation of soil water to water table occurs through

A. Micropores less than  $0.2 \mu m$ 

B. Micropores between 0.2 to 20.0  $\mu m$ 

C. Macropores between 20-50 $\mu m$ .

D. Macropores bigger than 50  $\mu m$ .

## Answer: D



**17.** Wetting of dried soil surface automatically during night without rain is

A. Night recovery

B. Dew wetting

C. Mist formation

D. Ground frost.

Answer: A



18. Night recovery is caused by

A. Condensation of water vapours

B. Local rain

C. Capillary movement

D. Both B and C.

Answer: A



19. During its life, a potato plant transpires water

A. 30 litres

B. 90 litres

C. 155 litres

D. 245 litres.

Answer: C

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20. On the basis of daily periodicity, stomatal movements are of

A. Four types

B. Three types

C. Two types

D. Five types.

Answer: A



21. In Potato type, the stomata remain open

A. Throughout day and night

B. 24 hours except for a few hours during day time

C. 24 hours except for a few hours during night

D. All the above.

Answer: D



B. Alfalfa type

C. Lucerne type

D. Potato type.

Answer: A

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23. Stomata tend to close during hot period and open during

cooler hours in

A. Potato type

B. Barley type

C. Cereal type

D. Lucerne type.

**Answer: B** 

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24. Transpiration as percentage of evaporation is called

A. Transpiration index

B. Transpiration ratio

C. Water requirement

D. Transpiration coefficient.



**25.** Time required for cobalt chloride paper to turn pink when planed just above water surface is called

A. Evaporation time

B. Water test time

C. Cobalt chloride test time

D. Leaf test time.

Answer: B

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26. Wilting of sun plants after rain is called

A. Incipient wilting

B. Permanent wilting

C. Flopping

D. The statement is incorrect.

Answer: C

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27. In transpiration, cavitation is

A. Rise of water against gravity

B. Evaporation of water in internal spaces

C. Dissolution of air in water

D. Appearance of air bubbles in water.

Answer: D

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28. Osmotic theory of acitve water absorption was given

A. Eaton

B. Bennet-Clark

C. Atkins

D. Kramer

Answer: C

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29. Non-osmotic theory of water absorption was proposed by

A. Eaton

B. Kramer

C. Keller

D. Bennet-Clark et al.

Answer: D



30. Xylem walls are`

A. Positively charged

B. Negatively charged

C. Electrochemically neutral

D. Differentially permeable.

Answer: B



 $\operatorname{B.} C_5 H_{70} O_6 N_4 Mg$ 

 ${\sf C}.\, C_{55}H_{72}O_5N_4Mg$ 

D.  $C_{35}H_{32}O_5N_4Mg$ .

Answer: A

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32. The molecular weight of chlorophyll a is

A. 907

B. 893

C. 911

D. 712

## Answer: B



# 33. The ration of chlorophyll a to chlorphyll b in flowering plants

is

A. 1.5:1

 ${\rm B.}\, 0.5\!: 1.5$ 

C. 2.5 - 3.5:1

D. 5.5:1

Answer: C

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**34.** In shade plants the ratio of chl a : chl b is

A. 4.5:1 B. 1.4:1

C. 0.7: 1

D. 5.5:1

Answer: B



**35.** The percentage of blue and red wavelengths of light absorbed by chlorophyll a is

A. 40%:4%

B. 45 % : 25 %

C. 48%:20%

D. 40%:30%

Answer: D

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36. The phenomenon of re-irradiation of absorbed light is called

A. Photoluminescence

B. Chemiluminescence

C. Phosphorescence

D. Fluorescence.

Answer: A



37. Fluoroscence differs from phosphorescence in being

A. Delayed emission

**B.** Instant emission

C. Bioluminescence

D. Chemiluminescence.

Answer: B

38. Katusky effect is

A. Photoluminescence in the absence of photosynthesis

B. Outburst of fluorescence at the end of illumination

C. Outburst of fluorescence during first few moment of

illumination

D. Bioluminescence at night

Answer: C



39. DCPIP (dichlorophenol indophenol ) is

A. Inhibitor of electron transport

B. Herbicide

C. Inhibitor of photosynthesis

D. Blue-coloured hill oxidant which becomes colourless on

being reduced.

Answer: D

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**40.** A grass which has both  $C_3$  and  $C_4$  ecotypes is

A. Alloteropsis semi-alata

B. Imperata cylindrica

C. Cynodon dactylon

D. Agropyron repens.

Answer: A

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**41.** A genus which has both  $C_3$  and  $C_4$  species is

A. Ricinus

**B.** Atriplex

C. Euphorbia

D. Both B and C.

Answer: D

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