



BIOLOGY

BOOKS - NEET PREVIOUS YEAR (YEARWISE + CHAPTERWISE)

Plant Growth and Development

Exercise

1. Which of the following prevents falling of fruits

OR

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

- A. cytolkinins
- B. ethylene
- C. auxins
- D. gibberellic acid

Answer: C



2.	The	Avena	curvature	is used	for	bioassay	y of
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A. GA_3

B. IAA

C. Ethylene

D. ABA

Answer: B



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3. Phytochrome is

- A. fiavoprotein
- B. glycoprotein
- C. lipoprotein
- D. chromoprotein

Answer: D



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4. You are given a tissue with its potential for differentiation in an artificial culture .Which of the following pairs of hormones would you

add to the medum to securre shoots as well as roots

- A. IAA, and gibberellin
- B. Auxin and cytokinin
- C. Auxin and abscisic acid
- D. Gibberel!in and abscisic acid

Answer: B



- **5.** Auxin can be bioassayed by
 - A. Avena coleoptile curvature
 - B. hydroponics
 - C. potometer
 - D. lettuce hypocotyl elongation

Answer: A



6. Dr. F. Went noted that is 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 made possible the isolation and exact identification of auxin

B. It is the basis for quantitative determination of small amounts of growth-promoting substances

C. It supports the hypothesis that IAA is auxin

D. It demonstrated polar movement of

Answer: B



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7. Which one of the following plant hormone (phytomone) Is know as a stress hormone

- A. abscsic acid
- B. Ethylene
- C. GA_3
- D. Indole acetic acid

Answer: A



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8. A few normal seedlingd of tomato were kept in a dark room. After a few days were found to have become white coloured like albinos. Ehich

of the following terms will you use to describe them

A. Mutated

B. Embolised

C. Etiolated

D. Defoliated

Answer: C



9. During seed germination, its stored food is mobilised by

A. ethylene

B. cytokinin

C. ABA

D. gibberellin

Answer: D



10. Phototropic curvature is result of uneven distribution of

A. gibberellin

B. phytochrome

C. cytokinins

D. auxin

Answer: D



11. Coiling of graden pea tendrils around any support is an example of

- A. thigmotaxis
- B. thigmonasty
- C. thigmotropism
- D. thermotaxis

Answer: C



12. One of the synthetic auxin is

A. NAA

B. IAA

C. GA

D. IBA

Answer: A



13. Which one of the following acids is a derivative of carotenoids?

A. Indole-butyric acid

B. Indole-3-acetic acid

C. Gibberellic acid

D. Abscisis acid

Answer: D



14. Senescence as an active devlopmental cellular process in the growth and functioning of a flowering plant, is indicated in

A. vessels and tracheid differentiation

B. leaf abscission

C. annual plants

D. floral parts

Answer: B



15. Impotance of day length (photoperiodism)

in flowering of plants was first shown in

- A. Lemna
- B. tobacco
- C. cotton
- D. Petunia

Answer: B



16. Opening of floral buds is

A. autonomic movement of locomotion

B. autonomic movement of variation

C. paratonic movement of growth

D. autonomic movement of growth

Answer: D



17. The wavelength of light absorbed by Pr form of phytochrome is

- A. 640 nm
- B. 680 nm
- C. 720 nm
- D. 620 nm

Answer: B



18. The hormone which was discovered through 'foolish seedling 'disease of rice is

Or

Bakane disease in paddy is caused by

- A. GA
- B. ABA
- C. 2,4 D
- D. IAA

Answer: A



19. Which one of the following pairs, is not correctly matched

A. Abscisic acid - Stomatal closure

B. Gibberellic acid - Leaf tall

C. Cytokinin - Cell division

D. IAA - Cell wall elongation

Answer: B



- **20.** How does pruning help in making the hedge dense
 - A. It frees axillary buds from apical dominance
 - B. The apical shoot grows faster after pruning
 - C. It releases wound hormones
 - D. It induces the differentiation ot new shoots from the rootstock

Answer: A



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21. An enzyme that can stimulate germination of barley seeds is

- A. lipase
- B. protease
- C. invertase
- D. lpha-amylase

Answer: D



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22. 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



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

A. indole acetic acid

B. cytokinins

C. gibberellins

D. ethylene

Answer: C



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24. Anthesis is a phenomenon which refers to:

A. reception of pollen by stigma

B. formation of pollen

C. development of anther

D. opening of flower bud

Answer: D

25. 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 ligth and did not produce flower. Under which one of the following categories will you place this plant

A. Long-day

- B. Darkness neutral
- C. Day neutral
- D. Short-day

Answer: D



- **26.** Differention of shoot is controlled by
 - A. high gibberellin-cytokinin ratio
 - B. high auxin-cytokinin ratio

- C. high cytokinin- auxin ratio
- D. high gibberellin- auxin ratio

Answer: C



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27. Plants deficient of element zinc, show its effect on the biosynthesis of plant growth hormone

A. abscisic acid

- B. auxin
- C. cytokinin
- D. ethylene

Answer: B



- 28. Hormone responsible for ageing is
 - A. ABA
 - B. auxin

C. GA

D. cytokinin

Answer: A



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29. Which one prevents premature fall of fruit

?

A. GA_3

B. NAA

- C. Ethylene
- D. Zeatin

Answer: B



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30. Hormone that breaks dormancy of seeds/potato tuber is

- A. G1bberellin
- B. IAA

C. ABA

D. Zeatin

Answer: A



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31. Which of the folloewing is a long day plant

A. Tobacco

B. Glycine max

C. Mirabills Jalapa

D. Spinach

Answer: D



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32. Protienaceous pigment which is the centre of the activities concerned with light is

A. phytochrome

B. chlorophyll

C. anthocyarnin

D. carotenoids

Answer: A



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33. Which method makes the seed coat permeable and allows growth of embryo ?

A. vernahsation

B. stratification

C. denudation

D. scarifcation

Answer: D



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34. What reason will you assign for coconut milk used in tissue culture?

- A. Gibberellins
- B. Cytokinins
- C. Auxins

D. Ethylene

Answer: B



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35. Geocarpic fruits are produced by

A. onion

B. watemelon

C. ground nut

D. carrot

Answer: C



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36. The closing and opening of the leaves of Mimosa pudica is due to

- A. thermonastic movement
- B. hydrotropic movement
- C. seismonastic movement
- D. chemonastic movement

Answer: C



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37. Which combination of gases is suitable for fruit ripending

- A. 80% CO_2 and 20% CH_2
- B. $80\%CH_4$ and $20\%CO_2$
- C. 80% CO_2 and 20% O_2
- D. 80% C_2H_4 and 20% CO_2

Answer: D



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38. The response of different organisms to environmental rhythms of light and darkness is called:

- A. phototaxis
- B. photoperiodism
- C. phototropism
- D. vernalistation

Answer: B



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39. A plant hormone used for inducing morphogenesis in plant tissure is

OR

Folr plant tissue culture among the following which one is required

A. gibberellines

B. cytokinins

- C. ethylene
- D. abscisis acid

Answer: B



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40. The pigment which mainly absorbs red and far-red radiation in plants, is known as

- A. xanthophyll
- B. cytochrome

C. phytochrome

D. carotene

Answer: C



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41. Gibberellins induce

A. flowering

B. production of hydrolysing enzymes in

germinating seeds

C. cell division

D. hasten leaf senescence

Answer: B



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42. What will be the effect on photochrome in a plant subjected to continous subjected to continous red light

A. Level of phytochrome decreases

- B. Phytochrome is destroyed
- C. Phytochrome synthesis increases
- D. Destruction and synthesis of phytochrome remain in equilibrium

Answer: B



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43. If a tree flowers thrice in a year (October, January and july) in nothern india, it is said to be

- A. photosensitive but thermoinsensitive
- B. thermosensitive but photoinsensitive
- C. photo and thermosensitive
- D. photo and thermoinsensitive

Answer: D



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44. Ethylene gas is used for

A. growth of plants

- B. delaying fruit's abscission
- C. ripening of fruits
- D. stopping the leaf abscission

Answer: C



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- 45. Movement of auxin is
 - A. centripetal
 - B. basipetal

- C. acropetal
- D. Both (b) and (c)

Answer: D



- **46.** Removal of apical bud results in
 - A. formation of new apical bud
 - B. elongation of main stem
 - C. death of plant

D. formation of lateral branching

Answer: D



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47. Clinostat is employed in the study of

A. osmosis

B. growth movements

C. photosynthesis

D. respiration

Answer: B



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48. Cytokinins

A. promote abscission

B. influence water movement

C. help retain chlorophyll

D. inhibit protoplasmic streaming

Answer: C



49. Which is employed for artificial ripening of banana fruits?

A. Auxin

B. Cumarin

C. Ethylene

D. Cytokinin

Answer: C



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50. In short-day plants, flowering is induced by

A. photoperiod less than 12 hrs

B. photoperiod below a critical length and

uninterrupted long night

C. long night

D. short photoperiod and interrupted long

night

Answer: B

51. Flowering dependent on cold treatment is

A. cryotherary

B. cryogenics

C. cryoscopy

D. vernalisation

Answer: D



52. Bananas can be prevented from overripening by

A. mainiaining them aL ream iemperature

B. refrigeration

C. dipping in ascorbic acid solution

D. storing in a freezer

Answer: C



53. Dwarfness can be controlled by treating the plant with

- A. cytokinin
- B. gibberllic acid
- C. auxin
- D. antigibberellin

Answer: B



54. A chemical believed to be involved in flowering is

A. gibberellin

B. kinetin

C. florigen

D. IBA

Answer: C



55. Abscisic acid causes

- A. stomatal closure
- B. stem elongation
- C. leaf expansion
- D. root elongatirn

Answer: A



56. The hormone responsible for apical dominance is



A. IAA

B. GA

C. ABA

D. fiorigen

Answer: A



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57. 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

Answer: C

the sun



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58. Photoropic and geotropic movements are linked to

A. gibberellins

B. enzymes

- C. auxins
- D. cytokinins

Answer: C



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59. Phytohormones are

- A. chemicals regulating flowering
- B. chemicals regulating secondary growth

C. hormones regulating growth from seed to adulthood

D. regulators synthesised by plants and influencing physiological processes

Answer: D



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60. Highest auxin concentration occurs

A. in growing tips

- B. in leaves
- C. at base of plant organs
- D. in xylem and phloem

Answer: A



- 61. Abscisic acid controls
 - A. cell division
 - B. leaf fall and dormancy

C. shoot elongation

D. cell elongation and wall formation

Answer: B



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62. Mowing grass lawn facilitates better maintenance because

A. wounding stimulates regeneration

- B. removal of apical dominance and stimulation of intercalary meristem
- C. removal of apical dominance
- D. removal of apical dominance and promotion of laieral meristem

Answer: D



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63. Leaf fall can be prvented by

- A. abscisic acid
- B. auxins
- C. florigen
- D. cytokinins

Answer: D



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64. Which of the following harmones can replace vernalization

or

Genetic dwarfness can be overcome by treating with

A. Auxin

B. Cytokinin

C. Gibberellins

D. Ethylene

Answer: C



65. Which increases in the absence of light?

A. Uptake of minerals

B. Uptake of water

C. Elongation of internodes

D. Ascent of sap

Answer: C



66. 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



67. Phytochrome is involved in

A. phototropism

B. photorespiration

C. photoperiodism

D. geotropism

Answer: C



68. Shock movements of leaves of Sensitive

Plant, Mimosa pudica, are

A. thermonasty

B. seismonasty

C. hydrotropism

D. chemonasty

Answer: B



69. Cut or excised leaves remain green for long if induced to root of dipped in

A. gibberellins

B. cytokinins

C. auxins

D. ethylene

Answer: B



70. Hormone primarily concern with cell division is

- A. IAA
- B. NAA
- C. cytokinin/zeatin
- D. gibberellic acid

Answer: C

