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BIOLOGY DPP #1
Plant Growth and Development

Direction 1 to 15 Objective Type

- Q1.** Growth is characterised by
 (A) anabolic process and energy expenditure
 (B) catabolic process which occurs at the expense of energy.
 (C) metabolic processes which occur at the expense of energy
 (D) energy expenditure only
- Q2.** Germination takes place when the
 (A) previously dormant embryo is activated.
 (B) cotyledons emerge above the ground.
 (C) hypocotyl or epicotyl emerges above the ground.
 (D) vascular tissues begin to transport fluids.
- Q3.** Which method makes the seed coat permeable to water so that embryo expansion is not physically retarded?
 (A) vernalization
 (B) stratification
 (C) denudation
 (D) scarification
- Q4.** The nature of graph curve in arithmetic growth will be
 (A) linear
 (B) sigmoidal
 (C) parabolic
 (D) hyperbolic
- Q5.** Which of the following refers to the measure of the ability of the plant to produce new plant material ?
 (A) efficiency index
 (B) absolute growth rate
 (C) arithmetic growth
 (D) linear growth
- Q6.** The process by which the cells loose their protoplasm to form tracheary element is
 (A) Dedifferentiation
 (B) Redifferentiation
 (C) Differentiation
 (D) Plasticity
- Q7.** Which of the following terms explains the ability of plant to follow different pathways and produce different structures in response to environment and phases of life ?
 (A) elasticity
 (B) growth efficiency
 (C) plasticity
 (D) heterophylly
- Q8.** ABA is chemically identical to -
 (A) Indole-3-acetic acid
 (B) Kinetin
 (C) Dormin
 (D) 2, 4-D
- Q9.** Which hormone was first isolated from human urine?
 (A) indole-3-acetic acid
 (B) gibberellin
 (C) ethylene
 (D) kinetin
- Q10.** All are effects of auxins except -
 (A) Apical dominance
 (B) Parthenocarpy
 (C) Phototropism
 (D) Fruit ripening
- Q11.** Maximum growth in roots occurs
 (A) At apex
 (B) In presence of light
 (C) Behind the apex
 (D) In presence of soil
- Q12.** The rate of growth of any organism follows
 Or
 Typical growth curves in plants is
 (A) Hyperbola curve
 (B) J-shaped curve
 (C) Sigmoid curve
 (D) Parabola curve
- Q13.** Exponential growth occurs in
 (A) Yeast
 (B) Asexual reproduction
 (C) Bacterial
 (D) All of these
- Q14.** 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 significant is this experiment
 (A) It supports the hypothesis that IAA is auxin
 (B) It demonstrate polar movement of auxins
 (C) It made possible the isolation and exact identification of auxin
 (D) It is the basis for quantitative determination of small amounts of growth-promoting substances

- Q15.** Which one of the following plants function is not generally governed or controlled by auxin
 (A) Apical dominance
 (B) Phototropism
 (C) Photosynthesis
 (D) Growth

Direction 16 to 20 True / False

- Q16.** Cytokinins delay senescence.
Q17. 2,4-D can be used as a herbicide.
Q18. Ethephon is the most widely used compound as a source of ethylene.
Q19. Removal of shoot tip usually induces growth of lateral buds.
Q20. Cytokinin promotes apical dominance.

BIOLOGY DPP #2
Plant Growth & Development
Plant Growth regulators PGRS

Direction 1 to 15 Objective Type

- Q1.** Which of the following Auxin is used as herbicide?
 (A) NAA
 (B) IAA
 (C) 2, 4-D
 (D) IBA
- Q2.** From which of the following, Gibberellin was first extracted?
 (A) Gibberella fujikuroi
 (B) algae
 (C) bacteria
 (D) roots of higher plants
- Q3.** Which of the following can prevent dwarfness in plants?
 (A) cytokinin
 (B) gibberellic acid
 (C) auxin
 (D) anti gibberellin
- Q4.** Which hormone is responsible for bolting ?
 (A) IAA
 (B) kinetin
 (C) ABA
 (D) GA
- Q5.** The first Gibberellin to be discovered was -
 (A) GA1
 (B) GA2
 (C) GA3
 (D) GA0
- Q6.** All of the following are functions of cytokinin except -
 (A) Promotes apical dominance.
 (B) Promotes chloroplast development.
 (C) Promotes movement of nutrients.
 (D) Delay leaf senescence.
- Q7.** The most abundant natural cytokinin that is isolated from corn kernels and coconut milk is
 (A) tryptophan derivative
 (B) pyrimidine derivative
 (C) kinetin
 (D) zeatin
- Q8.** The synthetic phytohormone that was discovered as a breakdown product of DNA was -
 (A) Kinetin
 (B) 2, 4-D
 (C) NAA
 (D) Thidiazuron
- Q9.** In which of the following ,highest concentration of cytokinin is found ?
 (A) area of continuous growth and meristematic region.
 (B) meristematic region only.
 (C) mature leaves.
 (D) ripened fruit.
- Q10.** Gaseous hormone is
 (A) ethylene
 (B) ethane
 (C) gibberellin
 (D) benzaldehyde
- Q11.** One of the synthetic auxin is
 Or
 Flowering in pineapple is promoted by
 (A) NAA
 (B) IAA
 (C) GA
 (D) IBA
- Q12.** Both is callus and suspension cultures commonly used auxin is
 (A) NAA
 (B) IBA
 (C) 2, 4-D
 (D) 2, 4, 5-Trichlorophenoxy acetic

- acid
(E) Absciscic acid
- Q13.** One of the commonly used plant growth hormone in tea
(A) Ethylene
(B) Absciscic acid
(C) Zeatin
(D) Indole-3-acetic acid
- Q14.** Bioassay for auxins is
(A) Avena curvature test
(B) Green leaf test
(C) Dwarf maize test
(D) Cell division test
- Q15.** Cell elongation in internodal region takes place due to
(A) Gibberellins

- (B) Ethylene
(C) Cytokinins
(D) Indole acetic acid

Direction 16 to 20 True / False

- Q16.** Roots and stems show unlimited growth.
- Q17.** Plant growth is extrinsic and open ended.
- Q18.** Water logging enhances growth of roots.
- Q19.** Vascular cambium and cork cambium are examples of lateral meristem.
- Q20.** Parenchyma is formed by dedifferentiation.

BIOLOGY DPP #3

Plant Growth & Development

Plant Growth Regulators PGRS and Photoperiodism

Direction 1 to 15 Objective Type

- Q1.** Which of the following promotes senescence in plants?
(A) auxins
(B) cytokinins
(C) GA
(D) ethylene
- Q2.** The hormone concerned with climacteric respiration is -
(A) Ethylene
(B) Auxin
(C) GA₁
(D) Cytokinin
- Q3.** Which of the following compound accelerates abscission of flower and fruits?
(A) Acetaldehyde
(B) Ethephon
(C) Ascorbic acid
(D) Zeatin
- Q4.** Which of the following phytohormone leads to leaf abscission, fruit fall, bud dormancy?
(A) Auxin
(B) Cytokinins
(C) Gibberellins
(D) Absciscic acid
- Q5.** The hormone that closes stomata in response to water stress is -
(A) IAA
(B) ABA
(C) NAA
(D) GA₃
- Q6.** ABA is antagonistic to
(A) GA
(B) 2,4-D

- (C) ethylene
(D) IAA
- Q7.** The movement of plant and its parts in response to light is called
(A) photorespiration
(B) photosynthesis
(C) phototropism
(D) photophosphorylation
- Q8.** Photoperiodism refers to -
(A) recurrence of day and night.
(B) effect of day length on flowering of a plant.
(C) flowering plant.
(D) growth curvature in response to light.
- Q9.** The flowering in long day plants is promoted only when the day length exceeds a certain duration, called the
(A) critical day length
(B) short-long day length
(C) long-short day length
(D) photoperiod
- Q10.** Plants requiring exposure to light far less than the critical period for flowering are called -
(A) long day plants.
(B) day neutral plants.
(C) intermediate day plants.
(D) short day plants.
- Q11.** The cut flowers and vegetables can be kept fresh a long period by this plant hormone
(A) Gibberellins
(B) Cytokinins
(C) Auxins

- (D) Ethylene
- Q12.** Which of the following is a coconut milk factor
 (A) Auxin
 (B) Cytokinins
 (C) Morphactin
 (D) None of the above
- Q13.** Root development is promoted by
 (A) Abscisic acid
 (B) Auxin
 (C) Gibberellin
 (D) Ethylene
- Q14.** Which one of the following generally acts as an antagonist to gibberellins
 (A) Zeatin
 (B) Ethylene
 (C) ABA
 (D) IAA
- Q15.** A few normal seedlings of tomato were kept in a dark room. After a few

- days they were found to have become white-coloured like albinos. Which of the following terms will you use to describe them
 (A) Etiolated
 (B) Defoliated
 (C) Mutated
 (D) Embolised

Direction 6 to 10 True / False

- Q16.** Presence of more than one type of leaves on the same plant is called heterophylly.
- Q17.** Auxins may result in reversal of genetic dwarfism.
- Q18.** IAA and IBA are synthetic Auxins.
- Q19.** Cytokinin is acidic in nature.
- Q20.** Richmond-Lang effect refers to dramatic effect of cytokinins to postpone senescence in plant tissues.

BIOLOGY DPP #4
Plant Growth & Development
PGRS & Photoperiodism & Vernalisation

Direction 1 to 15 Objective Type

- Q1.** Day neutral plants are characterized by
 (A) loss of activity during day time.
 (B) flowering in all possible photoperiods.
 (C) overactive during day time.
 (D) no flowering in any photoperiods.
- Q2.** Shortening of vegetative period and hastening of flowering by effect of low temperature is called -
 (A) photoperiodism
 (B) transpiration
 (C) vernalization
 (D) photolysis
- Q3.** Seed dormancy
 (A) is the temporary delay to the process of germination.
 (B) is the permanent delay to the process of germination.
 (C) minimizes seedling survival by preventing germination.
 (D) occurs due to the presence of growth inhibitors only.
- Q4.** 6-furfuryl amino purine, 2, 4-dichlorophenoxy acetic acid and indole-3 acetic acid are examples respectively for
 (A) gibberellin, kinetin and natural auxin.
 (B) gibberellin, natural auxin and

- kinetin.
 (C) natural auxin, gibberellin and synthetic auxin.
 (D) kinetin, synthetic auxin and natural auxin.
- Q5.** All of the following are characteristics of growth of an organism except -
 (A) It is an irreversible permanent increase in size of an organ / its part / an individual cell.
 (B) It is accompanied by metabolic processes.
 (C) It is quantitative and intrinsic.
 (D) None of the above
- Q6.** All of the following are correct about the conditions for plant growth except -
 (A) Oxygen helps in releasing metabolic energy essential for growth activities.
 (B) Nutrients are required by plants for the synthesis of protoplasm and act as source of energy.
 (C) Light and gravity affect certain stages of growth.
 (D) Water oxidizes glucose to provide energy.
- Q7.** Choose the correct statement regarding auxin -
 (A) IAA and IBA are natural but NAA, 2 4-D and 2, 4, 5-T are synthetic

- auxins.
- (B) IAA and NAA are natural but IBA, 2, 4, 5-T and 2, 4-D are Synthetic auxins.
- (C) NAA and 2, 4, 5-T are natural but IAA, IBA and 2, 4-D are synthetic auxins.
- (D) IAA, NAA, IAB, 2, 4-D and 2, 4, 5-T are synthetic auxins.
- Q8.** All of the following statements are correct regarding ethylene except -
- (A) It delays senescence.
- (B) It decreases the respiration rate during fruit ripening.
- (C) It breaks seed and bud dormancy.
- (D) It inhibits flowering in mango.
- Q9.** Choose the incorrect statement-
- (A) Long day plants flower if the night length is shorter than a critical period.
- (B) Short-day plants flower when night length exceeds a critical dark period.
- (C) Day-neutral plants are insensitive to day length.
- (D) The process of flowering does not occur in dayneutral plants.
- Q10.** Find out the correct statement regarding vernalisation.
- (A) Vernalisation refers to the promotion of flowering by a period of low temperature.
- (B) The spring variety of crops are normally planted in the spring and come to flower before the end of the growing season.
- (C) It is not seen in biennial plants.
- (D) Subjecting cold treatment to sugar beet will result in flowering.
- Q11.** Phytochrome is found in -
- (A) Algae
- (B) Fungi

- (C) Gymnosperms
- (D) Angiosperms
- Q12.** In short day plants (SDP) flowering is induced by
- (A) Long night
- (B) Photoperiod less than 12 hours
- (C) Photoperiod shorter than critical value and uninterrupted long night.
- (D) Short photoperiod and interrupted long night.
- Q13.** Which one shows red far red interconversions?
- (A) Carotenoids
- (B) Cytochromes
- (C) Chlorophyll
- (D) Phytochrome
- Q14.** A long day plant is -
- (A) Xanthium
- (B) Chrysanthemum
- (C) Radish
- (D) Tomato
- Q15.** Low temperature is harmful for plants, because it has
- (A) Desiccation effect
- (B) Chilling effect
- (C) Freezing effect
- (D) All of these

Direction 16 to 20 True / False

- Q16.** Gibberellic acid is used for ripening of fruits.
- Q17.** Cytokinins are commercially used to increase shelf life of vegetables.
- Q18.** ABA is derived from carotenoids.
- Q19.** Ethylene can induce dormancy in seeds.
- Q20.** Gibberellin is used as a substitute of vernalisation.

BIOLOGY DPP #5

Plant Growth & Development

Growth Differentiation Dedifferentiation

Redifferentiation

Direction 1 to 15 Objective Type

- Q1.** Find out the correct and incorrect statements from the following and choose the correct option.
- (i) 17,500 new cells are produced per hour by a single maize root apical meristem.
- (ii) With the help of length, growth of

- pollen tube is measured.
- (iii) The growth of the leaf is measured in terms of volume.
- (iv) Cells in a watermelon may increase in size by upto 3,50,000 times.
- (A) (i), (ii), (iii) are correct and (iv) is incorrect.
- (B) (i), (ii), (iv) are correct and (iii) is

- incorrect.
 (C) (ii), (iii) are correct and (i), (iv) are incorrect.
 (D) (i), (iv) are correct and (ii), (iii) are incorrect.
- Q2.** Find out the correct statements on phytohormones & their action.
 (i) Cytokinins specially help in delaying senescence.
 (ii) Auxins are involved in regulating apical dominance.
 (iii) Ethylene is specially useful in enhancing seed germination.
 (iv) Gibberellins are responsible for immature falling of leaves.
 (A) (i) and (iii) only
 (B) (i) and (iv) only
 (C) (i) and (ii) only
 (D) (ii) and (iii) only
- Q3.** Find out the correct statements ?
 (i) Cytokinins promote senescence.
 (ii) Auxins control apical dominance.
 (iii) Gibberellins promote shoot elongation.
 (iv) Abscissic acid enables seeds to withstand desiccation.
 (A) (i) and (ii) only
 (B) (ii) and (iii) only
 (C) (i) and (iii) only
 (D) (ii), (iii) and (iv) only
- Q4.** Read the following statements (i-iv) regarding "ethephon" and answer how many of them are correct
 (i) Ethephon is sprayed in aqueous solution and is readily absorbed and transported within the plant.
 (ii) It hastens fruit ripening in tomatoes and apples.
 (iii) It can be used to induce fruit thinning in cotton, cherry and walnut.
 (iv) It is used to promote female sex expression in cucumber and increase yield.
 (A) One
 (B) Two
 (C) Three
 (D) All
- Q5.** Absolute growth rate refers to
 (A) synthesis of new intercellular and extracellular materials.
 (B) measurement & the comparison of total growth per unit time
 (C) growth of the given system per unit time.
 (D) increased growth per unit time.
- Q6.** The exponential growth can be expressed as $W_1 = W_0 e^{rt}$. The 'r' in the expression is -
 (A) Relative growth rate and depends on final size.
 (B) Absolute growth rate & depends on initial size.
 (C) Relative growth and also referred to as efficiency index.
 (D) None of the above
- Q7.** A primary root grows from 5 cm to 26 cm in a week. Calculate the relative growth rate over the period.
 (A) 20%
 (B) 40%
 (C) 60%
 (D) 80%
- Q8.** De-differentiation is
 (A) regaining the lost capacity of division by living cells.
 (B) the ability of plant to produce different structures in response to environment.
 (C) the extrinsic factor affecting plant growth.
 (D) all of the above.
- Q9.** The hormone that is used to induce rooting from cut end of the stem is -
 (A) Kinetin
 (B) Indole butyric acid
 (C) GA_3
 (D) Abscissic acid
- Q10.** Plant hormone which is translocated to other parts for growth of the plant is
 (A) indole-3-acetic acid
 (B) gibberellins
 (C) cytokinins
 (D) none of these
- Q11.** Fruit drop is caused by -
 (A) Less auxin in fruit than in stem
 (B) More auxin in fruit than in stem
 (C) Equal distribution of auxin in stem and fruit
 (D) Absence of auxin in stem and fruit
- Q12.** Plants bend toward the light because
 (A) They need light for photosynthesis
 (B) They need light for respiration
 (C) Light attracts them
 (D) Cells on the shaded side elongate more

- Q13.** Which one of the following hormone is concerned chiefly with root initiation?
 (A) IBA
 (B) GA₃
 (C) ABA
 (D) Kinetin
- Q14.** If the tip of a seedling is cut off growth as well as bending ceases because it hampers
 (A) Respiration
 (B) Photosynthesis
 (C) Perception of light stimulus
 (D) Transpiration
- Q15.** In germinating seeds Amylase, Proteases, Lipases are stimulated by :
 (A) Auxin

- (B) Gibberellin
 (C) Cytokinin
 (D) Ethylene

Direction 16 to 20 True / False

- Q16.** ABA closes stomata in stressful situation.
- Q17.** Gibberellins inhibits amylase formation in germinating cereal grains.
- Q18.** In long day plants, the critical dark period needs to be exceeded for flowering.
- Q19.** Day neutral plants can blossom throughout the year.
- Q20.** Tobacco is a short day plant.

POWER-BOOSTER

- Q1.** The cell derived from meristems differentiate and regain the capacity to divide by a phenomenon called
 (A) differentiation
 (B) dedifferentiation
 (C) redifferentiation
 (D) totipotency
 (E) regeneration
- Q2.** A few normal seedlings of tomato were kept in a dark room. After a few days they were found to have become white-coloured like albinos. Which of the following terms will you use to describe them?
 (A) Mutated
 (B) Embolised
 (C) Etiolated
 (D) Defoliated
- Q3.** Auxanometer is used to measure
 (A) the growth in length of a plant organ
 (B) the growth in breadth of a plant organ
 (C) population of the pests attacking a plant
 (D) both (A) and (B).
- Q4.** The *Avena* curvature is used for bioassay of
 (A) IAA
 (B) ethylene
 (C) ABA
 (D) GA₃
- Q5.** Auxin can be bioassayed by
 (A) potometer

- (B) lettuce hypocotyl elongation
 (C) *Avena* coleoptile curvature
 (D) hydroponics
- Q6.** Assertion : Plant growth regulators (PGRs) are very important for plant growth and development.
 Reason : Auxins do not induce flowering in gymnosperms.
 (A) If both assertion and reason are true and reason is the correct explanation of assertion.
 (B) If both assertion and reason are true but reason is not the correct explanation of assertion.
 (C) If assertion is true but reason is false.
 (D) If both assertion and reason are false.
- Q7.** 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 significance is this experiment?
 (A) It made possible the isolation and exact identification of auxin.
 (B) It is the basis for quantitative determination of small amount of growth-promoting substances.
 (C) It supports the hypothesis that IAA is auxin.
 (D) It demonstrated polar movement of auxins.

Q8. The pineapple which under natural condition is difficult to blossom has been made to produce fruits throughout the year by application of

- (A) NAA, 2, 4-D
- (B) phenyl acetic acid
- (C) cytokinin
- (D) IAA, IBA

Q9. One of the commonly used plant growth hormone in tea plantation is

- (A) ethylene
- (B) abscisic acid
- (C) zeatin
- (D) indole - 3-acetic acid

Q10. Compare the statements A and B

Statement A : Auxins promote apical dominance by suppressing the activity of lateral buds.

Statement B : In horticulture, periodic pruning of shoot tips is done to make mulberry plants bushy.

Select the correct description

- (A) statement A is wrong and B is correct
- (B) both the statements A and B are correct and A is not the reason for B
- (C) both the statements A and B are correct and A is the reason for B.
- (D) statement A is correct and B is wrong.

Q11. Match Column - I with Column - II and select the correct option from the codes given below.

	Column - I		Column - II
A.	C. Darwin and F. Darwin	i	Cytokinin
B.	Miller and Skoog	ii	ABA
C.	Letham	iii	Zeatin
D.	Kurosawa	iv	Auxin
		v	GA

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

Q12. Match Column - I with Column - II and select the correct option from the codes given below.

	Column - I		Column - II
A.	Natural auxin	i	NAA
B.	Synthetic auxin	ii	Zeatin
C.	Bakane disease of rice	iii	IAA
D.	Natural cytokinin	iv	GA
		v	Kinetin

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

Q13. Match Column - I with Column - II and select the correct option from the codes given below.

	Column - I		Column - II
A.	Auxins	i.	Breaking seed dormancy
B.	Gibberellins	ii.	Inducing fruit repening
C.	Cytokinins	iii.	Formation of abscission layer
D.	Ethylene	iv.	Root initiation
		v.	Chloroplast development in leaves

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

Q14. (D) A-(iii), B-(iv), C-(i), D-(v)
Match Column - I with Column - II and select the correct option from the codes given below.

	Column - I		Column - II
A.	IAA	i.	Tissues undergoing senescence
B.	Gibberellins	ii.	Shoot apices
C.	Ethylene	iii.	Root apices

- (A) A-(ii), B-(iii), C-(i)
(B) A-(iii), B-(ii), C-(i)
(C) A-(i), B-(ii), C-(iii)
(D) A-(ii), B-(i), C-(iii)

Q15. Match Column - I with Column - II and select the correct option from the codes given below.

	Column - I		Column - II
A.	Auxin	i.	Fruit ripening
B.	Cytokinins	ii.	Phototropism
C.	Abscisic acid	iii.	Antagonist to GAs
D.	Ethylene	iv.	Growth of lateral buds

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

Q16. Match the following:

	Column - I		Column - II
A.	IAA	i.	Herring sperm DNA
B.	ABA	ii.	Bolting
C.	Ethylene	iii.	Stomatal closure
D.	GA	iv.	Weed-free lawns

E.	Cytokinins	v.	Ripening of fruits
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- (A) A-(iv), B-(iii), C-(v), D-(ii), E-(i)
(B) A-(v), B-(iii), C-(iv), D-(ii), E-(i)
(C) A-(iv), B-(i), C-(iv), D-(iii), E-(ii)
(D) A-(v), B-(iii), C-(ii), D-(i), E-(iv)

Q17. Match the following and choose the correct combination

	Column - I		Column - II
A.	Zeatin	i.	Flowering hormone
B.	Florigen	ii.	Synthetic auxin
C.	IBA	iii.	Cytokinin
D.	NAA	iv.	Natural auxin

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

Q18. Match column I and column II and select the correct option

	Column - I		Column - II
A.	Auxin	i.	Herring sperm DNA
B.	Cytokinin	ii.	Inhibitor of growth
C.	Gibberellin	iii.	Apical dominance
D.	Ethylene	iv.	Epinasty
E.	Abscisic acid	v.	Induces amylase synthesis

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

Q19. Match the items in Column I with Column II and choose the correct Option

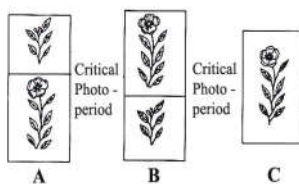
	Column - I		Column - II
A.	Human urine	i.	Cytokinin
B.	<i>Gibberella fujikuroi</i>	ii.	Auxin
C.	Herring fish DNA	iii.	Ethylene
D.	Ripening fruits	iv.	Abscisic acid
E.	Aged leaves of plants	v.	Gibberellins

BIOLOGY Previous Year Questions (PYQ)

- Q1.** Differentiation of shoot is controlled by : - [CBSE AIPMT 2003]
 (A) High gibberellin : cytokinin ratio
 (B) High auxin : cytokinin ratio
 (C) High cytokinin : auxin ratio
 (D) High gibberellin : auxin ratio
- Q2.** One set of a plant was grown at 12 hours day and 12 hours night period cycles and it flowered while in the other set night phase was interrupted by flash of light and it did not produce flower. Under which one of the following categories will you place this plant? [CBSE AIPMT 2004]
 (A) Long day
 (B) Darkness neutral
 (C) Day neutral
 (D) Short day
- Q3.** Anthesis is a phenomenon which refers to - [CBSE AIPMT 2004]
 (A) Reception of pollen by stigma
 (B) Formation of pollen
 (C) Development of anther
 (D) Opening of flower bud
- Q4.** Cell elongation in internodal regions of the green plants takes place due to [CBSE AIPMT 2004]
 (A) Indole acetic acid
 (B) Cytokinins
 (C) Gibberellins
 (D) Ethylene
- (A) A-ii, B-v, C-i, D-iii, E-iv
 (B) A-ii, B-iii, C-iv, D-v, E-i
 (C) A-i, B-v, C-ii, D-iv, E-iii
 (D) A-v, B-iv, C-iii, D-ii, E-i
 (E) A-iii, B-ii, C-i, D-v, E-iv
- Q20.** Which one of the following pairs is incorrectly matched
 (A) Adenine derivative – Kinetin
 (B) Carotenoid derivative – ABA
 (C) Terpenes – IAA
 (D) Indole compounds – IBA
 (E) Gas – Ethylene
- Q5.** Treatment of seed at low temperature under moist conditions to break its dormancy is called - [CBSE AIPMT 2006]
 (A) Vernalisation
 (B) Chelation
 (C) Stratification
 (D) Scarification
- Q6.** An enzyme that can stimulate germination of barley seeds is- [CBSE AIPMT 2006]
 (A) Lipase
 (B) Protease
 (C) Invertase
 (D) α- amylase
- Q7.** How does pruning help in making the hedge dense? [CBSE AIPMT 2006]
 (A) It frees axillary buds from apical dominance
 (B) The apical shoot grows faster after pruning
 (C) It released wound hormones
 (D) It induces the differentiation of new shoots from the rootstock
- Q8.** Which one of the following pairs, is not correctly matched?
 (A) Abscisic Acid – Stomatal closure
 (B) Gibberellic Acid – Leaf fall
 (C) Cytokinin – Cell division
 (D) IAA – Cell wall elongation
- Q9.** 'Foolish Seedling' disease of rice led to the discovery of:

- (A) GA
(B) ABA
(C) 2, 4 D
(D) IAA
- Q10.** The wavelength of light absorbed by P_r form of phytochrome is:
[CBSE AIPMT 2007]
(A) 640 nm
(B) 680 nm
(C) 720 nm
(D) 620 nm
- Q11.** Opening of floral buds into flowers, is type of: [CBSE AIPMT 2007]
(A) Autonomic movement of locomotion
(B) Autonomic movement of variation
(C) Paratonic movement of growth.
(D) Autonomic movement of growth
- Q12.** Importance of day length in flowering of plants was first shown in:
[CBSE AIPMT 2008]
(A) Lemna
(B) Tobacco
(C) Cotton
(D) Petunia
- Q13.** Senescence as an active developmental cellular process in the growth and functioning of a flowering plant, is indicated in:
[CBSE AIPMT 2008]
(A) Vessels and tracheid differentiation
(B) Leaf abscission
(C) Annual plants
(D) Floral parts
- Q14.** Which one of the following acids is a derivative of carotenoids?
[CBSE AIPMT 2009]
(A) Indole butyric acid
(B) Indole-3-acetic acid
(C) Gibberellic acid
(D) Abscisic acid
- Q15.** One of the synthetic auxin is:
[CBSE AIPMT 2009]
(A) NAA
(B) IAA
(C) GA
(D) IBA
- Q16.** Coiling of garden pea tendrils around any support is an example of?
(A) Thigmotaxis
(B) Thigmonasty
(C) Thigmotropism
(D) Thermotaxis
- Q17.** Phototropic curvature is the result of uneven distribution of?
[CBSE AIPMT 2009]
(A) Gibberellin
(B) Phytochrome
(C) Cytokinins
(D) Auxin
- Q18.** During seed germination its stored food is mobilized by: [NEET 2013]
(A) Ethylene
(B) Cytokinin
(C) ABA
(D) Gibberellin
- Q19.** A few normal seedlings of tomato were kept in a dark room. After a few days they were found to have become white-coloured like albinos. Which of the following terms will you use to describe them?
[CBSE AIPMT 2014]
(A) Mutated
(B) Embolised
(C) Etiolated
(D) Defoliated
- Q20.** Which one of the following growth regulators is known as 'stress hormone'?
[CBSE AIPMT 2014,1993]
(A) Abscisic acid
(B) Ethylene
(C) GA₃
(D) Indole acetic acid
- Q21.** 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 significance is this experiment?
[CBSE AIPMT 2014]
(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 auxins
- Q22.** Auxin can be bioassayed by:
[CBSE AIPMT 2015]
(A) Avena coleoptile curvature
(B) Hydroponics

- (C) Potometer
(D) Lettuce hypocotyl elongation
- Q23.** 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 medium to secure shoots as well as roots?
[NEET 2016]
- (A) IAA and gibberellin
(B) Auxin and cytokinin
(C) Auxin and abscisic acid
(D) Gibberellin and abscisic acid
- Q24.** Phytochrome is a
[NEET 2016]
- (A) flavoprotein
(B) glycoprotein
(C) lipoprotein
(D) chromoprotein
- Q25.** The avena curvature is used for bioassay of
[NEET 2016]
- (A) GA₃
(B) IAA
(C) Ethylene
(D) ABA
- Q26.** Fruit and leaf drop at early stages can be prevented by the application of
[NEET 2017]
- (A) Cytokinins
(B) Ethylene
(C) Auxins
(D) Gibberellic acid
- Q27.** Phytohormones are
[2008]
- (A) hormones regulating growth from seed to adulthood
(B) growth regulators synthesised by plants and influencing physiological process
(C) hormones regulating flowering
(D) hormones regulating secondary growth
- Q28.** Refer the given figures on photoperiodism and select the correct option. [2010]



(A)	No short light - light period	Correlation Between period	long light-exposure exposure period and flowering
(B)	long light - exposure period	no correlation between light period	short light - exposure period and flowering
(C)	short light-exposure period	long light - exposure period	no correlation between light period and flowering
(D)	no correlation between light period	short light - exposure period	long light - exposure and flowering

- Q29.** Abscisic acid is known as the stress hormone because it
[2012]
- (A) sugar but not ATP
(B) ATP but not sugar
(C) both ATP and sugar
(D) neither ATP nor sugar.
- Q30.** Which of the following plant growth regulators (PGRs) promotes root initiation, flowering and induced parthenocarpy?
[2013]
- (A) Gibberellin
(B) Auxin
(C) Cytokinin
(D) Ethylene
- Q31.** Vernalisation is subjected to plants growing in
[2014]
- (A) tropical areas
(B) sub tropical areas
(C) temperate areas
(D) hot areas/arctic region.
- Q32.** Gibberellins can promote seed germination because of their influence on
[2015]
- (A) rate of cell division
(B) production of hydrolysing enzymes
(C) synthesis of abscisic acid

- (D) absorption of water through hard seed coat.
- Q33.** 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
- [2016]
- (A) Gibberellin, Auxin, Ethylene
(B) Auxin, Gibberellin, Cytokinin
(C) Gibberellin, Auxin, ABA
(D) Auxin, Gibberellin, ABA.
- Q34.** Cytokinin involves
- [2018]
- (A) kinetin, zeatin, BAP
(B) GA₃, IBA Kinetin
(C) Zeatin, GA₃, BAP

- (D) IAA, Zeatin, kinetin
- Q35.** Auxin was first isolated from
- [2018]
- (A) Human urine
(B) Callus
(C) Coconut milk
(D) None
- Q36.** Which of the following statement is wrong about Absciscic acid:
- [2018]
- (A) It helps in general plant metabolism
(B) It is antagonistic to GA_b
(C) It helps in seed maturation & dormancy
(D) Morphogenesis

ANSWER KEY

DPP 1																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
C	B	D	A	A	C	C	C	A	D	C	C	B	C	C	T	T	T	T	F

DPP 2																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
C	A	B	D	C	A	D	A	A	A	A	C	D	A	A	T	F	F	T	F

DPP 3																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
D	A	B	D	B	A	C	B	A	D	B	B	D	C	A	T	F	F	F	T

DPP 4																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	C	A	D	D	D	A	B	D	C	D	C	D	C	D	F	T	T	F	T

DPP 5																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	C	D	D	C	C	C	A	B	A	A	D	A	C	B	T	F	T	T	T

POWER BOOSTER																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
B	C	A	A	C	B	A	A	D	C	A	A	A	A	B	A	E	A	A	C

PREVIOUS YEAR QUESTIONS (PYQ)																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
C	D	D	C	C	D	A	B	A	B	D	B	B	D	A	C	D	D	C	A
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
B	A	B	D	B	C	B	C	D	B	C	B	C	C	C	A				