

National Testing Agency

Question Paper Name: Plant Physiology 09th November 2019 Shift 1
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Plant Physiology

Group Number : 1
Group Id : 709597258
Group Maximum Duration : 0
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Break time: 0
Group Marks: 100

Plant Physiology

Section Id : 709597335
Section Number : 1
Section type : Online
Mandatory or Optional: Mandatory
Number of Questions: 100
Number of Questions to be attempted: 100
Section Marks: 100
Display Number Panel: Yes
Group All Questions: No

Sub-Section Number: 1
Sub-Section Id: 709597430
Question Shuffling Allowed : Yes

Question Number : 1 Question Id : 70959723386 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In primary active transport, what is the chief source of energy?

- a) Proton motive force
- b) Hydrolysis of GTP
- c) Hydrolysis of ATP
- d) Hydrolysis of ATP & GTP

Question Number : 2 Question Id : 70959723387 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is **NOT** an example of secondary active transport of solutes in plants?

- a) Cotransport
- b) Symport
- c) Antiport
- d) Transport by pumps

Question Number : 3 Question Id : 70959723388 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Aquaporins are

- a) membrane-spanning proteins and are trimers
- b) membrane-spanning proteins and are tetramers
- c) membrane-spanning lipids
- d) membrane-spanning lipids but homotetramers

Question Number : 4 Question Id : 70959723389 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Who among the following won the Noble Prize in chemistry in 2003 for the discovery of water channels

- a) Parisi et al.
- b) Verkman et al.
- c) Parisi and Verkman
- d) Agre et al.

Question Number : 5 Question Id : 70959723390 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a bioassay for auxins?

- a) Dwarf maize test
- b) *Avena* curvature test
- c) Cell division test
- d) Green leaf test

Question Number : 6 Question Id : 70959723391 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is the physiological role of Cytokinins?

- a) Induction of cell division and delaying of senescence
- b) Maintenance of dormancy
- c) Induction of abscission
- d) Inhibition of cell division

Question Number : 7 Question Id : 70959723392 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Internodal elongation is prompted by the action of:

- a) Auxins
- b) Gibberellic acid
- c) Cytokinin
- d) Absciscic acid

Question Number : 8 Question Id : 70959723393 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Epinasty in the leaf is associated with

- a) decreased growth on upper side
- b) Increased growth on lower side
- c) increased growth on upper side
- d) equal growth on both sides

Question Number : 9 Question Id : 70959723394 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Guttation is due to:

- a) transpiration
- b) positive pressure
- c) negative pressure
- d) a& c

Question Number : 10 Question Id : 70959723395 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is **NOT** true?

- a) $\Psi_w \neq V / \Delta G$
- b) $\Psi_w = P - \pi$
- c) $\Psi_w = \Psi_p + \Psi_s$
- d) $\Psi_w = \pi - P$

Question Number : 11 Question Id : 70959723396 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Brassinosteroids help in promotion of

- a) cell expansion and
- b) cell elongation.
- c) Both a and b
- d) none of these

Question Number : 12 Question Id : 70959723397 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following monomerizes Cyclobutane pyrimidine dimers in the presence of visible light?

- a) Exonuclease
- b) DNA polymerase
- c) Transposase
- d) DNA photolyases

Question Number : 13 Question Id : 70959723398 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which among the following is light labile?

- a) CRY1
- b) CRY2
- c) CRY3
- d) CRY1 and CRY3

Question Number : 14 Question Id : 70959723399 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Jasmonates play a role in plant defence by production of

- a) Secondary metabolites
- b) Alpha Amylase inhibitors
- c) Anti digestive enzymes
- d) All of the above

Question Number : 15 Question Id : 70959723400 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Senescence promoting hormones are

- a) Ethylene and GA
- b) Ethylene and Cytokinins
- c) Ethylene and Jasmonic acid
- d) Jasmonic acid and Cytokinins

Question Number : 16 Question Id : 70959723401 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which among the following physiological actions are controlled by HIR

- a) Hypocotyl elongation and cotyledon expansion
- b) Hypocotyl elongation and anthocyanin synthesis
- c) anthocyanin synthesis and cotyledon expansion
- d) Hypocotyl elongation, cotyledon expansion and anthocyanin synthesis

Question Number : 17 Question Id : 70959723402 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The main photoreceptor involved in LFR responses is

- a) phytochrome A
- b) Phytochrome B
- c) Cryptochrome 1
- d) Cryptochrome 2

Question Number : 18 Question Id : 70959723403 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Hydroponics is a method of

- a) Growth of plants in solid culture medium
- b) Growth of plants in agar culture medium
- c) Growth of plants in liquid culture medium
- d) Growing plants in laboratory

Question Number : 19 Question Id : 70959723404 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Macronutrients are present in concentrations of

- a) <1mg/gm of dry weight of plant tissues
- b) 1mg/gm of dry weight of plant tissues
- c) >5mg/gm of dry weight of plant tissues
- d) 5mg/gm of dry weight of plant tissues

Question Number : 20 Question Id : 70959723405 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Plants having apoplastic phloem loading have

- a) Ordinary companion cells
- b) Transfer companion cells
- c) Intermediary cells
- d) Both A and B

Question Number : 21 Question Id : 70959723406 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Plants having symplastic phloem loading mainly transport

- a) Glucose
- b) Sucrose
- c) Raffinose and stachyose
- d) Raffinose and glucose

Question Number : 22 Question Id : 70959723407 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a sink?

- a) green immature leaves
- b) mature flowers
- c) developing leaves and fruits
- d) all of these

Question Number : 23 Question Id : 70959723408 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Apoplastic transport in phloem loading and unloading usually refers to

- a) Transport through living parts of tissue
- b) Transport through non-living parts of tissue
- c) Transport through roots
- d) Transport through stem

Question Number : 24 Question Id : 70959723409 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following blue light responses is/are mediated by phototropins?

- a) Stomatal opening, chloroplast movements and anthocyanin synthesis
- b) Stomatal opening, phototropism and anthocyanin synthesis
- c) Chloroplast movements, phototropism and flowering
- d) Stomatal opening, chloroplast movements and phototropism

Question Number : 25 Question Id : 70959723410 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Chloroplasts move toward relatively weak light to:

- a) avoid photo damage
- b) minimize photon capture
- c) maximize photon capture
- d) maximize reflection of light

Question Number : 26 Question Id : 70959723411 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Phototropins regulate stomatal movements by activating

- a) Na^+/K^+ ATPase in plasma membrane
- b) H^+ -ATPase
- c) Na^+ -ATPase
- d) K^+ -ATPase

Question Number : 27 Question Id : 70959723412 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Voltage-gated channels open or close in response to changes in

- a) Membrane potential
- b) Water content
- c) Protein ratio
- d) All of the above

Question Number : 28 Question Id : 70959723413 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Nernst equation says that the distribution of an ion on two sides of a membrane depends on

- a) Concentration difference across the membrane
- b) Pressure difference across the membrane
- c) Electrical potential difference across the membrane
- d) Concentration and electrical potential difference across the membrane

Question Number : 29 Question Id : 70959723414 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following determine the sink strength in plants?

- a) Only size of sink
- b) Sink volume
- c) Sink size and sink activity
- d) Sink storage

Question Number : 30 Question Id : 70959723415 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A single functional unit of sieve element and companion cell is known as

- a) Sieve element companion cell complex
- b) Phloem complex
- c) Companion cell complex
- d) Sieve cell complex

Question Number : 31 Question Id : 70959723416 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A flaccid cell is kept in pure water and reaches equilibrium. Now at equilibrium:

- a) Cell $\Psi_w = 0$
- b) Cell $\Psi_w > 0$
- c) Cell $\Psi_w < 0$
- d) Cell $\Psi_s \neq -\Psi_P$

Question Number : 32 Question Id : 70959723417 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Pressure Potential in plant cells is

- a) always negative
- b) always positive
- c) always zero
- d) can be positive, negative or zero

Question Number : 33 Question Id : 70959723418 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If hydrostatic pressure(P) of a cell = ambient atmospheric pressure, and ambient atmospheric pressure = 1atm, then P or ψ_p of a cell is

- a) 1 atm
- b) -1 atm
- c) 0 atm
- d) 1 MPa

Question Number : 34 Question Id : 70959723419 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The condition under which the transpiration would be most rapid is

- a) High humidity in air
- b) Excess of water in soil
- c) Low air humidity, high temperature and turgid guard cells
- d) Low velocity of wind

Question Number : 35 Question Id : 70959723420 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Aldehyde oxidases catalyse the conversion of:

- a) Xanthoxal into Absciscic acid
- b) β -carotene into Zeaxanthin
- c) Violaxanthin into Xanthoxal
- d) Lycopene into β -carotene

Question Number : 36 Question Id : 70959723421 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Absciscic acid receptor is assumed to be a:

- a) Vitamin
- b) Lipid
- c) Protein
- d) Mineral

Question Number : 37 Question Id : 70959723422 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Despite negative tension, rising column of water **does NOT** break its continuity, because of:

- (a) Adhesion
- (b) Surface tension
- (c) Transpiration
- (d) High tensile strength of water.

Question Number : 38 Question Id : 70959723423 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The upward movement of xylem water against the gravitational pull in plants depends upon the process of:

- (a) Respiration
- (b) Guttation
- (c) Photosynthesis
- (d) Transpiration

Question Number : 39 Question Id : 70959723424 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The principal pathway of ascent of sap in angiosperms is:

- (a) Sieve cells
- (b) Sieve tube elements
- (c) Xylem vessels
- (d) Xylem and phloem.

Question Number : 40 Question Id : 70959723425 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

IAA is **NOT** used commercially as a plant growth regulator because:

- a) It is highly stable
- b) It is not available & is difficult to synthesise
- c) It is labile in aqueous solution
- d) It is not effective

Question Number : 41 Question Id : 70959723426 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In response to unilateral light, auxin is transported:

- a) laterally to the shaded side
- b) laterally to the illuminated side
- c) polarly from tip to the base
- d) laterally to the shaded side making plants bend away from light

Question Number : 42 Question Id : 70959723427 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Transporter molecules, that transport molecules across a membrane, are chemically

- a) Lipids
- b) Proteins
- c) Carbohydrates
- d) Phospholipids

Question Number : 43 Question Id : 70959723428 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following processes would be directly affected by a lack of cellular ATP?

- a) Osmosis.
- b) Diffusion.
- c) Active transport.
- d) Facilitated diffusion.

Question Number : 44 Question Id : 70959723429 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the effect of fertilizers on soil pH?

- a) All fertilizers can lead to substantial soil alkalinity.
- b) All fertilizers can lead to substantial soil alkalinity because of being inherently strongly alkanic
- c) All fertilizers can lead to substantial soil acidity because of being inherently strongly acidic
- d) Continued use of ammonia or ammonium fertilizers can lead to acidic soil conditions

Question Number : 45 Question Id : 70959723430 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is produced when calcareous soil is treated with a hydrochloric acid?

- a) carbon dioxide
- b) Carbon
- c) Carbon monoxide
- d) Sodium carbonate

Question Number : 46 Question Id : 70959723431 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following are the dominant exchangeable cations in acid soils?

- a) Manganese and iron
- b) Hydrogen and aluminum
- c) Sulfur and sodium
- d) Boron and Sulfur

Question Number : 47 Question Id : 70959723432 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Human urine contains:

- a) TDZ
- b) Zeatin
- c) Kinetin
- d) All of these

Question Number : 48 Question Id : 70959723433 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following acts as a donor of isoprenoid side chain in cytokinin biosynthesis?

- a) Dimethylallyldiphosphate (DMAPP)
- b) AMP
- c) ADP
- d) ATP

Question Number : 49 Question Id : 70959723434 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which part(s) of the plant is (are) highly sensitive towards photoperiodic effect?

- a) Old leaves
- b) Vegetative buds
- c) Mature leaves
- d) Juvenile folded leaves

Question Number : 50 Question Id : 70959723435 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The possible effect of red-light treatment is that it:

- a) Initiates flowering in short day plants
- b) Blocks flowering in short day plants
- c) Blocks flowering in long day plants
- d) Effects only day neutral plants

Question Number : 51 Question Id : 70959723436 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one is the most widely accepted explanation of ascent of sap?

- a) Capillarity
- b) Atmospheric pressure
- c) Imbibitional force
- d) Transpirational pull

Question Number : 52 Question Id : 70959723437 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A plant cell attains turgidity due to:

- a) Exosmosis
- b) Plasmolysis
- c) Hydrolysis
- d) Endosmosis

Question Number : 53 Question Id : 70959723438 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Cofactor for decarboxylase and dehydrogenase enzymes is:

- a) Manganese
- b) Zinc
- c) Cobalt
- d) Phosphorus

Question Number : 54 Question Id : 70959723439 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Grey speck of cereal grains is a disorder caused by:

- a) Deficiency of cobalt
- b) Toxicity of cobalt
- c) Deficiency of manganese
- d) Toxicity of manganese

Question Number : 55 Question Id : 70959723440 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Copper acts as cofactor for:

- a) Plastoquinone
- b) Cytochrome oxidase
- c) Nitrogenase
- d) Oxygenase

Question Number : 56 Question Id : 70959723441 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Ethylene is derived from which which pair of carbons of methionine?

- a) C1 and C2
- b) C1 and C3
- c) C2 and C4
- d) C3 and C4

Question Number : 57 Question Id : 70959723442 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following gases is used for the final conversion of ACC to ethylene?

- a) Carbon dioxide
- b) Oxygen
- c) Hydrogen
- d) Nitrogen

Question Number : 58 Question Id : 70959723443 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Triple response of ethylene was demonstrated first time in which of the following plants?

- a) Maize
- b) Pea
- c) Tomato
- d) Arabidopsis

Question Number : 59 Question Id : 70959723444 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Short-day plants which must be exposed to long days during early periods of growth for subsequent flowering are called:

- a) Long-day plants
- b) Short-day plants
- c) Short Long Day Plants
- d) Long Short Day Plants

Question Number : 60 Question Id : 70959723445 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

At the time of sunset all the phytochrome is in the:

- a) PR form
- b) PFR form
- c) Half in each of the above forms
- d) Either of above

Question Number : 61 Question Id : 70959723446 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Reversal of the positive effect of vernalization by subsequent high temperature treatment is called:

- a) Revernalization
- b) Over-vernalization
- c) Devernalization
- d) Unvernalization

Question Number : 62 Question Id : 70959723447 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Plants which are characterised by the occurrence of more than one stem above the ground are known as:

- a) Shrubs
- b) Herbs
- c) Trees
- d) Annuals

Question Number : 63 Question Id : 70959723448 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Plants which shed their leaves seasonally are known as:

- a) Evergreen
- b) Deciduous
- c) Herbaceous
- d) Decumbent

Question Number : 64 Question Id : 70959723449 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Name the hormone involved in seed germination

- a) Gibberellin
- b) Auxin
- c) Cytokinen
- d) ABA

Question Number : 65 Question Id : 70959723450 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Name the enzyme synthesized during seed germination in response to GA

- a) Cellulase
- b) Protease
- c) α -amylase
- d) Both A and B

Question Number : 66 Question Id : 70959723451 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Growth of plants is directly related to

- a) Cell volume and number
- b) Cell type and location
- c) Cell volume and location
- d) Cell type and number

Question Number : 67 Question Id : 70959723452 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In order to reduce water loss, plants may

- a) shed leaves
- b) depend on peripheral layer of root
- c) will show cell division in shoot apex
- d) get rid of stomata

Question Number : 68 Question Id : 70959723453 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following hormone induces senescence:

- (a) Auxin
- (b) Salicylic acid
- (c) Gibberellins
- (d) Cytokinins

Question Number : 69 Question Id : 70959723454 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A small circular island of cell death due to pathogen infection is known as:

- (a) Abscission layer
- (b) Apoptosis layer
- (c) Necrotic lesion
- (d) Tapetum layer

Question Number : 70 Question Id : 70959723455 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The presence of hairs on leaf surface is an adaptation to:

- a) Soil pH
- b) Light quality
- c) Water stress
- d) Disturbance

Question Number : 71 Question Id : 70959723456 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Succulents are characterised by:

- a) Water storage tissue
- b) Fleshy leaves
- c) Excess of pentosans in the sap
- d) All of the above

Question Number : 72 Question Id : 70959723457 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

During opening of stomata, starch is converted into:

- a) Phosphoenolpyruvate
- b) 3-Phospho glyceric acid
- c) Dihydroxy acetone phosphate
- d) Oxalo acetic acid

Question Number : 73 Question Id : 70959723458 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The influx of K^+ ions into the cytoplasm of guard cells increases their:

- a) Matric Potential
- b) Water Potential
- c) Osmotic Pressure
- d) Wall Pressure

Question Number : 74 Question Id : 70959723459 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is **NOT** a transporter protein?

- a) Calmodulin
- b) Hydrogen proton pump
- c) Na-ATPase pump
- d) None of these

Question Number : 75 Question Id : 70959723460 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Valinomycin facilitates the uptake of which of the following ions?

- (a) Ca^{2+}
- (b) K^{+}
- (c) Na^{+}
- (d) Mg^{2+}

Question Number : 76 Question Id : 70959723461 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Plants take up phosphorus in the form of

- (a) PO_4^-
- (b) H_2PO_4^-
- (c) HPO_4^-
- (d) None of these

Question Number : 77 Question Id : 70959723462 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Stomata are confined only to the upper surface of leaves in:

- a) Hydrilla
- b) Vallisneria
- c) Nelumbo
- d) Isoetes

Question Number : 78 Question Id : 70959723463 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Most of the adaptations in xerophytes are associated with:

- a) Increase in photosynthesis
- b) Decrease in transpiration
- c) Increase in absorption of light
- d) Absorption of minerals

Question Number : 79 Question Id : 70959723464 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following organic osmotica contribute up to 50% of the total osmotic potential in glycophytes subjected to saline conditions?

- a) Proline
- b) Glycinebetaine
- c) Sugars
- d) Proteins

Question Number : 80 Question Id : 70959723465 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Oxidative stress is induced by generation of:

- a) Urea
- b) Ca^{2+}
- c) Mg^{2+}
- d) ROS

Question Number : 81 Question Id : 70959723466 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Pressure flow or mass flow hypothesis was propounded by:

- a) Jones (1970)
- b) Munch (1930)
- c) Spanner (1958)
- d) Mason and phillis (1937)

Question Number : 82 Question Id : 70959723467 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The presence of many plasmodesmatal connections to surrounding cells is the most characteristic feature of:

- a) Intermediary cells
- b) Transfer cells
- c) Ordinary companion cells
- d) Intermediary and transfer cells

Question Number : 83 Question Id : 70959723468 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following are used to find the triple point of water?

- a) temperature
- b) pressure
- c) States of water
- d) Temperature, pressure and states of water

Question Number : 84 Question Id : 70959723469 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the bond angle of water?

- a) 45°
- b) 95°
- c) 100°
- d) 105°

Question Number : 85 Question Id : 70959723470 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a physical property of a water?

- a) melts at 0 °C
- b) polar in nature
- c) undergoes ionization
- d) forms hydrogen bonds

Question Number : 86 Question Id : 70959723471 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Strong water deficit leads to:

- a) disturbance in membrane lipid and protein association
- b) decrease in the enzyme activity
- c) decline in bilayer transport capacity
- d) all the above

Question Number : 87 Question Id : 70959723472 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The functional proteins include proteins that function in abiotic stress tolerance and include all the following **except**:

- a) Chaperones
- b) Protein kinases
- c) Late embryogenesis abundant proteins
- d) Osmotin

Question Number : 88 Question Id : 70959723473 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Flowering is said to be autonomous:

- a) When it occurs strictly in response to internal developmental factors
- b) When it depends on any particular environmental conditions
- c) When it relies on both internal developmental as well as on environmental factors
- d) When only photoperiodic control is involved

Question Number : 89 Question Id : 70959723474 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Vernalization induces:

- a) Flowering in winter annuals and biennials
- b) Changes in the pattern of gene expression
- c) The flowers to be initiated at the apex without the product(s) of photoperiodic induction in the leaves
- d) All of these

Question Number : 90 Question Id : 70959723475 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The light absorbing pigment molecule of phytochrome is?

- a) Apoprotein
- b) Holoprotein
- c) Coenzyme
- d) Chromophore

Question Number : 91 Question Id : 70959723476 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Very low fluence responses are initiated by fluencies as low as :

- a) $0.1\mu\text{molm}^{-2}$
- b) $0.01\mu\text{molm}^{-2}$
- c) $0.0001\mu\text{molm}^{-2}$
- d) $0.00001\mu\text{molm}^2$

Question Number : 92 Question Id : 70959723477 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

High irradiance responses are directly proportional to:

- a) Irradiance
- b) Duration
- c) Fluence
- d) Both a & b

Question Number : 93 Question Id : 70959723478 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Sleeping movements shown by some plants are an example of:

- a) Thigmonasty
- b) Nyctinasty
- c) Epinasty
- d) Seismonasty

Question Number : 94 Question Id : 70959723479 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The nature of stimuli in paratonic movements is:

- a) Internal
- b) External
- c) Internal & external
- d) Autonomous

Question Number : 95 Question Id : 70959723480 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Plant movements wherein the direction of stimulus determines the direction of movement are referred to as:

- a) Taxis
- b) Circumnutation
- c) Epinasty
- d) Tropisms

Question Number : 96 Question Id : 70959723481 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Plagiotropism is usually shown by:

- a) Roots
- b) Stolons
- c) Leaves
- d) Tendrils

Question Number : 97 Question Id : 70959723482 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following environmental factors affect seed germination?

- a) Water, temperature, pressure, and light
- b) Water, temperature, pressure and oxygen
- c) Water, temperature, light and oxygen
- d) Water, temperature, pressure, light and oxygen

Question Number : 98 Question Id : 70959723483 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Dormancy due to hard seed coat is:

- a) Physiological dormancy
- b) Secondary dormancy
- c) Quiescence
- d) Physical dormancy

Question Number : 99 Question Id : 70959723484 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In hypogeal germination:

- a) Cotyledons are lifted above the surface of earth
- b) Cotyledons remain within soil
- c) Cotyledons are not important
- d) Flower is always terminal

Question Number : 100 Question Id : 70959723485 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is an anti-senescence agent:

- a) Polyamines
- b) Peroxidases
- c) Auxins
- d) Gibberellic acid