



BRAINWARE UNIVERSITY

Term End Examination 2021 - 22

Programme – Bachelor of Science (Honours) in Agriculture

Course Name – Fundamentals of Crop Physiology

Course Code - CC-BAG274(T)

(Semester II)

Time allotted : 1 Hrs.5 Min.

Full Marks : 50

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question)

1 x 50=50

Choose the correct alternative from the following :

- (1) Movement of solute particle from a higher concentration to its lower concentration area till the equilibrium is achieved is known as-

a) Plasmolysis	b) Transpiration
c) Osmosis	d) Diffusion
- (2) The natural occurring hormone in higher plant is
 ___x001f___x001f___x001f___x001f___x001f_____

a) IAA	b) IBA
c) NAA	d) IBA and NAA
- (3) An essential growth substance required in tissue culture and delay the chlorophyll loss

a) GA	b) Kinetin
c) Cytokinin	d) Auxin
- (4) Stress hormone is _____

a) GA	b) IAA
c) ABA	d) NAA
- (5) Which Metabolic Pathway Produces Carbohydrate?

a) Glycolysis	b) Krebs cycle
c) Cyclic electron pathway	d) Calvin cycle
- (6) What is the End Product of the Calvin Cycle?

a) PGA	b) ADP+NADP
c) RuBP	d) PGAL
- (7) _____ have no Role in Photosynthesis.

- a) Anthocyanin
c) Phycoerythrin
- b) Xanthophyll
d) Phycoerythrin
- (8) What is the Reason Behind Cell Elongation in Internodal Regions of Plants?
a) Indole acetic acid
c) Gibberellins
- b) Cytokinins
d) Ethylene
- (9) Which of the Following is Known as a Hatch-slack Pathway?
a) C2.
c) C4.
- b) C3.
d) C5.
- (10) Among the Following, Which is a C4 Plant?
a) Sugarcane
c) Corn
- b) Soybean
d) All of these
- (11) Among the Following, Which is a CAM Plant?
a) Mango
c) Kiwifruit
- b) Coconut
d) Pineapple
- (12) Among the Following, Which is an Example of 'Upright Growth of Stems'?
a) Phototropism
c) Negative geotropism
- b) Positive geotropism
d) Auxin tropism
- (13) What is the Rate of Photosynthesis in C4 Plants?
a) Higher
c) Low
- b) Moderate
d) Very low
- (14) Who Gave the 'Root Pressure' Theory?
a) J.C. Bose
c) Stephan Hales
- b) Godlewski
d) Boehm
- (15) A Dark Reaction Takes Place in _____
a) Grana
c) Grana and Stroma both
- b) The stroma of chloroplast
d) Mitochondria
- (16) What is the Name of the Process By Which Turgidity of a Cell is Maintained?
a) Wall pressure
c) Diffusion pressure
- b) Osmotic pressure
d) Turgor pressure
- (17) Wilting of a Plant is a Result of Excessive -
a) Transpiration
c) Photosynthesis
- b) Absorption
d) Respiration
- (18) What is the Reason for Seed Dormancy?
a) Starch
c) Ethylene
- b) Glucose
d) Abscisic acid
- (19) Due to the Uneven Distribution of _____ Phototropic Curvature Occurs
a) Auxin
c) Phytochrome
- b) Cytokinins
d) Gibberellin
- (20) Peroxisomes are involved in which type of reactions pertaining to plant photosynthesis?
a) Calvin Cycle
c) Glyoxylate cycle
- b) Glycolytic cycle
d) Bacterial photosynthesis
- (21) The physical process involved in the release of molecular oxygen from leaves is

- a) diffusion
c) osmosis
- b) transpiration
d) capillarity
- (22) Translocation of carbohydrate nutrients usually occurs in the form of
a) glucose
c) starch
- b) maltose
d) sucrose
- (23) Chief function of leaves are
a) transpiration and photosynthesis
c) respiration and digestion
- b) respiration and photosynthesis
d) respiration and transpiration
- (24) End product of glycolysis is
a) acetyl CoA
c) glucose-1-phosphate
- b) pyruvic acid
d) fructose-1-phosphate
- (25) The ultimate gain of light reaction is
a) ATP and NADPH2
c) only ATP
- b) NADPH2
d) only O2
- (26) End product of fermentation of sugars is
a) H2O and CO2
c) alcohol and CO2
- b) CO2
d) alcohol
- (27) Which of the following is not performed by root hairs?
a) Water uptake
c) Mineral uptake
- b) Oxygen uptake
d) CO2 uptake
- (28) The specialized cells in between epidermis and vascular layer of root are known as-
a) Cork cambium
c) Phloem
- b) Xylem
d) Cortex
- (29) In Hatch and Slack cycle, the final product synthesized is considered as -
a) Pyruvate
c) Phospho glyceric acid
- b) 3 Phospho glycerate
d) Phospho Enol Pyruvate
- (30) In TCA cycle, a total number of _____ ATP is synthesized from single molecule of Glucose -
a) 4
c) 18
- b) 8
d) 24
- (31) The event of C4 pathway mainly observed in-
a) Rice
c) Maize
- b) Wheat
d) Pineapple
- (32) The highest rate of transpiration is taken place through-
a) Stomatal transpiration
c) Lenticular transpiration
- b) Cuticular transpiration
d) Hydathode transpiration
- (33) The phyto-hormone which promotes seed germination is-
a) Auxin
c) Gibberellin
- b) Cytokynin
d) Abscisic acid
- (34) Formulae of Graham's law on diffusion depicted as -
a) $(d \propto 1/\sqrt{D})$
c) $(D \propto d)$
- b) $(D \propto 1/\sqrt{d})$
d) $(D \propto 1/d)$
- (35) 'Ghost Cell' is basically-

- a) Cell ruptures when put in hypotonic solution b) Cell become shrink & flacid when put in hypertonic solution
- c) Cells getting dried out due to transpired heavily d) none of these
- (36) The type of movement of water molecules through the internal passage between two cells and also a type of water transport in plants is known as-
- a) Diffusion b) Symplastic movement
- c) Apoplastic movement d) Transmembrane movement
- (37) Which one is incorrect about imbibition of plant seed-
- a) Heat is generated or released b) Volume is changed
- c) Pressure is created internally d) None of these
- (38) The reason of occurrence of chlorosis in leaves is due to the deficiency of -
- a) Ca b) K
- c) Na d) Mg
- (39) Which initial ionic exchange takes place for opening of stomata during night time?
- a) Na⁺ & K⁺ b) Na⁺ & H⁺
- c) H⁺ & K⁺ d) None of these
- (40) Cristae is the folded part of the inner membrane of-
- a) Golgibody b) Mitochondria
- c) Peroxisome d) Cytosol
- (41) Nucleolus is the hub for the synthesis of-
- a) RNA b) DNA
- c) Both RNA & DNA d) Protein
- (42) Science that measures the timing of life cycle events for plants and animals is known as-
- a) Phenocopy b) Pleiotropy
- c) Botany d) Phenology
- (43) Under growth measurement, arithmetic growth is represented by _____ curve
- a) Linear b) Sigmoid
- c) Parabolic d) Hyperbolic
- (44) Which type of plants are belong to Monocot category-
- a) Grass b) Shrub
- c) Tree d) Both grass and tree
- (45) The concept of photoperiodism was given by-
- a) Garner & Allard b) Darwin
- c) Pavlov d) None of these
- (46) Which type of cell organelle is the site of phospho-lipid biosynthesis-
- a) Ribosome b) Peroxisome
- c) Rough ER d) Smooth ER
- (47) A family of proteins that form channels to facilitate the transport of water across cell membranes-
- a) Porin b) Symporin
- c) Aquaporin d) Carrier protein

- (48) _____ enables xylem walls very rigid to prevent them collapsing under the large tension forces set up by transpiration pull-
- a) Lignin
 - b) Suberin
 - c) Cuticle
 - d) None of these
- (49) The cell organelle which is responsible for shipment in transport vesicle and also known as sorting and processing center of cell-
- a) Mitochondria
 - b) Golgi body
 - c) Endoplasmic Reticulum
 - d) Nucleus
- (50) The inner matrix of Mitochondria is the site of-
- a) TCA cycle
 - b) Fatty acid breakdown
 - c) Both TCA cycle & Fatty acid breakdown
 - d) Glycolysis