

QB365 Question Bank Software Study Materials

Plant Anatomy and Plant Physiology 50 Important 1 Marks Questions With Answers (Book Back and Creative)

10th Standard

Science

Total Marks : 50

Multiple Choice Question

50 x 1 = 50

- 1) Casparian strips are present in the _____ of the root.
(a) cortex (b) pith (c) pericycle **(d) endodermis**
- 2) The endarch condition is the characteristic feature of
(a) root **(b) stem** (c) leaves (d) flower
- 3) The xylem and phloem arranged side by side on same radius is called _____
(a) radial (b) amphivasal **(c) conjoint** (d) None of these
- 4) Which is formed during anaerobic respiration
(a) Carbohydrate **(b) Ethyl alcohol** (c) Acetyl CoA (d) Pyruvate
- 5) Kreb's cycle takes place in
(a) chloroplast **(b) mitochondrial matrix** (c) stomata (d) inner mitochondrial membrane
- 6) Oxygen is produced at what point during photosynthesis ?
(a) when ATP is converted to ADP (b) when CO₂ is fixed **(c) when H₂O is splitted** (d) All of these
- 7) Exarch and tetrarch xylem are a feature of _____.
(a) dicot stem (b) dicot leaf (c) monocot root **(d) dicot root**
- 8) Name the tissue present between the upper and lower epidermis.
(a) Lower epidermis tissue (b) Pith (c) Upper epidermis tissue **(d) Mesophyll**
- 9) The inner mitochondrial membrane gives rise to finger like projections called _____.
(a) oxysomes (b) matrix **(c) cristae** (d) stalk
- 10) Leucoplasts are _____ plastids.
(a) colourless (b) yellow (c) orange (d) red
- 11) The study of internal structure of plants _____.
(a) Plant Physiology **(b) Plant Anatomy** (c) Taxonomy (d) Cytology
- 12) In _____ vascular bundles, Xylem and phloem are present in different radii alternating with each other.
(a) Collateral (b) Bicollateral (c) Concentric (d) Radial
- 13) The xylem is exarch and polyarchin _____.
(a) Dicot stem (b) Dicot root (c) Monocot stem (d) Monocot root
- 14) Conjunctive tissue in monocot root, is made up of _____.
(a) Parenchyma (b) Collenchyma **(c) Sclerenchyma** (d) Xylem

- 15) Root hairs are the unicellular outgrowths of _____
 (a) **Epiblema** (b) Rhizodermis (c) Piliferous Layer (d) All the above
- 16) _____ helps in the storage of food materials
 (a) **Epidermis** (b) Chlorenchyma (c) Collenchyma (d) Pith
- 17) Ground tissue is not differentiated into endodermis, cortex, pericycle and pith in _____
 (a) Dicot stem (b) Dicot root (c) **Monocot stem** (d) Monocot root
- 18) Vascular bundles are conjoint, collateral and closed in _____
 (a) Monocot and dicot stem (b) Monocot and dicot root (c) **Monocot and dicot leaf** (d) All the above
- 19) Stroma contains _____ ribosomes for protein synthesis.
 (a) **20 S** (b) 30 S (c) 50 S (d) 70 S
- 20) Thylakoids forms a stack of disc like structures called _____
 (a) Stroma (b) Matrix (c) **Granum** (d) Lamellae
- 21) _____ is the primary photosynthetic pigment
 (a) **Chlorophyll a** (b) Chlorophyll b (c) Carotenoids (d) Xanthophylls
- 22) _____ is the ultimate electron acceptor in aerobic respiration.
 (a) **Oxygen** (b) Hydrogen (c) Carbon di oxide (d) Water
- 23) _____ is parenchymatous with profuse inter cellular spaces in monocot stem.
 (a) Hypodermis (b) **Ground tissue** (c) Vascular bundle (d) Cortex
- 24) Single layered without hair
 (a) Endodermis (b) **Epidermis** (c) Hypodermis (d) Pericycle
- 25) Bulliform or motor cells are Present on
 (a) Root (b) Stem (c) **Isobilateral leaf** (d) Dorsiventral leaf
- 26) Bulliform cells differ from other cells in being
 (a) small and thick walled (b) small and thin walled (c) large and thick walled (d) **large and thin walled**
- 27) Innermost layer of cortex is
 (a) pericycle (b) **endodermis** (c) cortex (d) perisperm
- 28) Starch sheath is
 (a) **endodermis of stem** (b) outer cortex (c) inner cortex (d) covering of vascular bundle
- 29) Endodermis is not differentiated in
 (a) monocot root (b) dicot root (c) **monocot stem** (d) dicot stem
- 30) Open vascular bundles are those in which
 (a) the protoxylem lies towards the pith (b) there is no cambium
 (c) **cambium is present between the xylem and phloem** (d) phloem is found on both outer and inner sides of the xylem
- 31) Stele consists of
 (a) Endodermis, pericycle, vascular bundle and pith (b) **pericycle, vascular bundle and pith**
 (c) Vascular bundle and Pith (d) Vascular bundles only

- 32) Which of these characters does/do not apply to the vascular bundle of monocot stem?
 I. Conjoint
 II. Collateral
 III. Open
 IV. Endarch
 (a) I and II only (b) II and III only (c) III and IV only **(d) III only**
- 33) Cell organelles responsible for preparation and storage of food
 (a) Mitochondria **(b) Plastids** (c) Lysosomes (d) Ribosomes
- 34) Fuel Produced by using the technology Artificial photosynthesis is
 (a) Oxygen (b) Nitrogen **(c) Hydrogen** (d) Methane
- 35) The common step in both aerobic and anaerobic respiration is
 (a) Krebs cycle (b) Electron Transport chain (c) Oxidation **(d) Glycolysis**
- 36) The chemical pathway of photosynthesis was discovered by
 (a) C.N. Rao **(b) Melvin Calvin** (c) Sachs (d) Robin Hill
- 37) Power house of the cell is
(a) Mitochondria (b) Leucoplast (c) Chromoplast (d) Chloroplast
- 38) The endarch condition is characteristic of
 (a) root **(b) stem** (c) leaves (d) petiole
- 39) Amphivasal bundle belongs to _____ type of vascular bundle.
(a) concentric (b) collateral (c) conjoint (d) radial
- 40) The _____ is called starch sheath in a dicot stem.
 (a) epidermis (b) pericycle **(c) endodermis** (d) hypodermis
- 41) Protoxylem lacuna refers to a _____.
 (a) thickening xylem (b) arrangement of **(c) a cavity** (d) exarch xylem
- 42) _____ are racket shaped particles seen in inner mitochondrial membrane.
 (a) Porin (b) ATP **(c) Oxysome** (d) Grana
- 43) Respiratory quotient for aerobic respiration is _____.
 (a) 2 (b) infinity **(c) 1** (d) 0
- 44) _____ is the outer most layer.
 (a) Stomata **(b) Epidermis** (c) Periderm (d) Skin
- 45) _____ helps in transpiration.
(a) Stomata (b) Epidermis (c) Trichomes (d) Root hairs
- 46) _____ help in absorption of water and minerals.
(a) Root hairs (b) Stomata (c) Epidermis (d) Trichomes
- 47) _____ is the outermost layer of the root.
(a) Epiblema (b) Cortex (c) Endodermis (d) Stele
- 48) Who discovered light dependent photosynthesis?

(a) Robin Hill (b) Nehemiah Grew (c) Kolliker (d) Melvin Calvin

49) Mitochondria contain _____ of protein.

(a) 70 - 80 % (b) 80 - 90 % **(c) 60- 70 %** (d) 50 - 60 %

50) Chloroplasts are _____ shaped organelles.

(a) disc (b) round **(c) oval** (d) circle