

Quiz: Botany set 15

Q701: Which of the following is a characteristic feature of angiosperms?

- A) Presence of naked seeds
- B) Double fertilisation
- C) Haploid endosperm
- D) Absence of vessels

Q702: In which plant group does the sporophyte remain attached to the gametophyte?

- A) Pteridophytes
- B) Gymnosperms
- C) Bryophytes
- D) Angiosperms

Q703: Which algae is used to obtain algin?

- A) Gelidium
- B) Gracilaria
- C) Laminaria
- D) Polysiphonia

Q704: The roots that originate from the base of the stem are called:

- A) Tap roots
- B) Prop roots
- C) Fibrous roots
- D) Lateral roots

Q705: Phyllotaxy refers to the arrangement of:

- A) Leaves on stem
- B) Flowers on floral axis
- C) Veins in leaf lamina
- D) Petals in flower

Q706: Which tissue in dicot roots is responsible for lateral root formation?

- A) Endodermis
- B) Pericycle
- C) Cortex
- D) Epidermis

Q707: In a dorsiventral leaf, usually:

- A) Stomata are equal on both surfaces
- B) Stomata are more on upper surface
- C) Stomata are more on lower surface
- D) Stomata are absent

Q708: Which organelle is the site of aerobic respiration?

- A) Chloroplast
- B) Ribosome
- C) Mitochondria

D) Lysosome

Q709: The principal component of the cell wall of fungi is:

- A) Cellulose
- B) Chitin
- C) Peptidoglycan
- D) Pectin

Q710: During which phase of cell cycle does DNA replication take place?

- A) G1 phase
- B) G2 phase
- C) S phase
- D) M phase

Q711: Synapsis occurs between:

- A) Sister chromatids
- B) Homologous chromosomes
- C) Non-homologous chromosomes
- D) Spindle fibres

Q712: Water potential of pure water at standard temperature is:

- A) 10
- B) Zero
- C) -10
- D) 100

Q713: Which element is a constituent of the ring structure of chlorophyll?

- A) Iron
- B) Manganese
- C) Magnesium
- D) Calcium

Q714: The primary acceptor of CO₂ in C3 plants is:

- A) PEP
- B) RuBP
- C) PGA
- D) OAA

Q715: Which pigment system is involved in photolysis of water?

- A) PS I
- B) PS II
- C) Both PS I and PS II
- D) Carotene

Q716: The final electron acceptor in mitochondrial electron transport system is:

- A) Cytochrome c
- B) Oxygen
- C) Ubiquinone
- D) NAD⁺

Q717: Which plant hormone is responsible for fruit ripening?

- A) Auxin
- B) Ethylene
- C) Cytokinin
- D) Gibberellin

Q718: Vernalisation refers to promotion of flowering by:

- A) Low temperature
- B) High temperature
- C) Light duration
- D) Water stress

Q719: Which of the following plants is monoecious?

- A) Papaya
- B) Date palm
- C) Marchantia
- D) Chara

Q720: Filiform apparatus is a characteristic feature of:

- A) Egg
- B) Synergids
- C) Zygote
- D) Antipodals

Q721: Polyembryony is commonly seen in:

- A) Pea
- B) Citrus
- C) Tomato
- D) Potato

Q722: Which of the following is a test cross?

- A) TT x Tt
- B) Tt x Tt
- C) Tt x tt
- D) TT x TT

Q723: Sickle cell anaemia is caused by substitution of:

- A) Valine by Glutamic acid
- B) Glutamic acid by Valine
- C) Valine by Leucine
- D) Glutamic acid by Lysine

Q724: The coding sequences or expressed sequences in mRNA are called:

- A) Introns
- B) Exons
- C) Cistrons
- D) Operons

Q725: Which enzyme is required for transcription?

- A) DNA polymerase
- B) RNA polymerase
- C) Ligase
- D) Helicase

Q726: Semi-dwarf variety of wheat was developed by:

- A) Norman Borlaug
- B) M.S. Swaminathan
- C) Gregor Mendel
- D) Watson and Crick

Q727: Which microorganism produces statins?

- A) Trichoderma polysporum
- B) Monascus purpureus
- C) Aspergillus niger
- D) Penicillium notatum

Q728: The molecular scissors of DNA are:

- A) Ligases
- B) Polymerases
- C) Restriction endonucleases
- D) Helicases

Q729: Bt cotton is resistant to:

- A) Nematodes
- B) Fungal diseases
- C) Insect pests
- D) Drought

Q730: Which population interaction involves benefit to one species and harm to another?

- A) Mutualism
- B) Commensalism
- C) Parasitism
- D) Amensalism

Q731: The rate of formation of new organic matter by consumers is called:

- A) Primary productivity
- B) Secondary productivity
- C) Net primary productivity
- D) Gross primary productivity

Q732: Which of the following is an ex-situ conservation method?

- A) National Park
- B) Sanctuary
- C) Biosphere Reserve
- D) Botanical Garden

Q733: Montreal Protocol aims to control:

- A) Global warming
- B) Ozone depletion
- C) Water pollution
- D) Biodiversity loss

Q734: The gynoecium consists of many free pistils in flowers of:

- A) Papaver
- B) Michelia
- C) Aloe
- D) Tomato

Q735: Which of the following is not a stem modification?

- A) Tendrils of cucumber
- B) Thorns of citrus
- C) Pitcher of Nepenthes
- D) Tuber of potato

Q736: Secondary phloem and secondary xylem are produced by:

- A) Phellem
- B) Vascular cambium
- C) Apical meristems
- D) Axillary meristems

Q737: The core of cilium or flagellum composed of microtubules is called:

- A) Axoneme
- B) Centriole
- C) Basal body
- D) Satellite

Q738: Which cell division results in reduction of chromosome number?

- A) Mitosis
- B) Meiosis
- C) Amitosis
- D) Binary fission

Q739: Movement of water through cell wall without crossing any membrane is:

- A) Symplastic
- B) Apoplastic
- C) Transmembrane
- D) Active

Q740: Biological nitrogen fixation is carried out by:

- A) Eukaryotes only
- B) Prokaryotes only
- C) Both
- D) None

Q741: The first stable product of CO₂ fixation in C4 cycle is:

- A) 3-PGA
- B) Oxaloacetic acid
- C) RuBP
- D) Malic acid

Q742: In fermentation, the net gain of ATP molecules from one glucose molecule is:

- A) 2
- B) 4
- C) 36
- D) 38

Q743: In tissue culture, shoot formation is induced by:

- A) High auxin : low cytokinin
- B) High cytokinin : low auxin
- C) ABA
- D) Ethylene

Q744: Seeds without fertilisation are produced by:

- A) Parthenocarpy
- B) Apomixis
- C) Polyembryony
- D) Micropropagation

Q745: Which Mendelian principle is not explained by monohybrid cross?

- A) Dominance
- B) Segregation
- C) Independent Assortment
- D) Both 1 and 2

Q746: The adapter molecule in translation is:

- A) mRNA
- B) rRNA
- C) tRNA
- D) snRNA

Q747: Golden rice is a transgenic crop rich in:

- A) Vitamin C
- B) Vitamin A
- C) Lysine
- D) Iron

Q748: The interaction where one species is harmed and other is unaffected is:

- A) Commensalism
- B) Amensalism
- C) Competition
- D) Predation

Q749: The reservoir for gaseous type of nutrient cycle is:

- A) Earth's crust
- B) Atmosphere
- C) Ocean
- D) Soil

Q750: Which of the following is a biodiversity hotspot in India?

- A) Gangetic Plain
- B) Western Ghats
- C) Thar Desert
- D) Deccan Plateau