

Quiz: Botany set 10

Q451: Which taxonomic category includes organisms sharing fundamental similarities in body plan?

- A) Class
- B) Order
- C) Phylum
- D) Genus

Q452: Which algal group lacks true roots, stems and leaves and has thalloid body?

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

Q453: Which plant group is known as first vascular land plants?

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

Q454: The edible part of groundnut seed is:

- A) Endosperm
- B) Cotyledons
- C) Pericarp
- D) Testa

Q455: Which tissue is responsible for protection and absorption in roots?

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

Q456: Which layer of dicot stem acts as starch sheath?

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

Q457: Which cell organelle is absent in prokaryotic cells?

- A) Ribosome
- B) Plasma membrane
- C) Nuclear membrane
- D) Cell wall

Q458: Which biomolecule is polymer of amino acids?

- A) Carbohydrate
- B) Protein
- C) Lipid
- D) Nucleic acid

Q459: Which phase of cell cycle is also called growth phase?

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

Q460: Which process moves water molecules across semipermeable membrane?

- A) Diffusion
- B) Osmosis
- C) Active transport
- D) Mass flow

Q461: Which mineral nutrient is a component of ATP?

- A) Nitrogen
- B) Magnesium
- C) Phosphorus
- D) Potassium

Q462: Which pigment is the primary reaction centre in photosynthesis?

- A) Chlorophyll b
- B) Carotene
- C) Chlorophyll a
- D) Xanthophyll

Q463: Which compound is regenerated during Calvin cycle?

- A) 3-PGA
- B) RuBP
- C) OAA
- D) PEP

Q464: Which respiratory step occurs in inner mitochondrial membrane?

- A) Glycolysis
- B) Krebs cycle
- C) Electron transport chain
- D) Fermentation

Q465: Which plant hormone is known as stress hormone?

- A) Auxin
- B) Gibberellin
- C) Ethylene
- D) Absciscic acid

Q466: Which part of embryo sac develops into embryo?

- A) Synergids
- B) Egg cell
- C) Central cell
- D) Antipodals

Q467: Which breeding method is used to improve self-pollinated crops?

- A) Mass selection
- B) Pureline selection
- C) Hybridisation
- D) Outcrossing

Q468: Which microorganism is used for production of cyclosporin A?

- A) *Aspergillus niger*
- B) *Penicillium notatum*
- C) *Trichoderma polysporum*
- D) *Rhizopus*

Q469: Which enzyme is used to cut DNA at specific sequences?

- A) DNA polymerase
- B) RNA polymerase
- C) Restriction endonuclease
- D) Ligase

Q470: Which term denotes death rate of a population?

- A) Natality
- B) Mortality
- C) Density
- D) Dispersion

Q471: Which trophic level has least biomass in terrestrial ecosystem?

- A) Producers
- B) Primary consumers
- C) Secondary consumers
- D) Top carnivores

Q472: Which biome shows maximum annual rainfall?

- A) Savanna
- B) Tundra
- C) Tropical rainforest
- D) Taiga

Q473: Which pollutant is responsible for photochemical smog?

- A) SO₂
- B) NO₂
- C) CO₂
- D) CH₄

Q474: Which taxonomic aid provides detailed information about plants of a region?

- A) Monograph
- B) Manual
- C) Flora
- D) Catalogue

Q475: Which algae shows haplontic life cycle?

- A) Ulothrix
- B) Spirogyra
- C) Ectocarpus
- D) Fucus

Q476: Which tissue is composed of dead cells and provides rigidity?

- A) Parenchyma
- B) Collenchyma
- C) Sclerenchyma
- D) Phloem

Q477: Which plastid is responsible for photosynthesis?

- A) Chromoplast
- B) Leucoplast
- C) Chloroplast
- D) Amyloplast

Q478: Which nitrogenous base pairs with adenine in RNA?

- A) Thymine
- B) Uracil
- C) Cytosine
- D) Guanine

Q479: Which stage of meiosis is called reduction division?

- A) Meiosis I
- B) Meiosis II
- C) Anaphase II
- D) Telophase II

Q480: Which force is mainly responsible for ascent of sap in tall trees?

- A) Root pressure
- B) Capillarity
- C) Transpiration pull
- D) Diffusion

Q481: Which micronutrient is a component of nitrogenase enzyme?

- A) Zinc
- B) Iron
- C) Copper
- D) Manganese

Q482: Which pathway minimises photorespiration?

- A) C3 pathway
- B) C4 pathway
- C) CAM pathway
- D) Glycolysis

Q483: Which respiratory substrate gives respiratory quotient equal to 1?

- A) Proteins
- B) Fats
- C) Carbohydrates
- D) Organic acids

Q484: Which hormone induces fruit ripening?

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

Q485: Which part of ovule develops into seed coat?

- A) Nucellus
- B) Integuments
- C) Funiculus
- D) Chalaza

Q486: Which breeding method transfers a desirable gene repeatedly to elite parent?

- A) Hybridisation
- B) Mass selection
- C) Backcrossing
- D) Mutation breeding

Q487: Which microorganism is used for production of citric acid?

- A) Rhizopus
- B) Aspergillus niger
- C) Penicillium
- D) Lactobacillus

Q488: Which technique is used to amplify DNA?

- A) ELISA
- B) PCR
- C) Southern blotting
- D) Hybridisation

Q489: Which dispersion pattern shows individuals evenly spaced?

- A) Random
- B) Uniform
- C) Clumped
- D) Aggregated

Q490: Which ecological pyramid is always upright?

- A) Pyramid of numbers
- B) Pyramid of biomass
- C) Pyramid of energy
- D) All pyramids

Q491: Which biome is characterised by coniferous forests?

- A) Tundra
- B) Taiga
- C) Savanna
- D) Desert

Q492: Which gas is responsible for global warming?

- A) Oxygen
- B) Nitrogen
- C) Carbon dioxide
- D) Hydrogen

Q493: Which system of classification is based on evolutionary relationships?

- A) Artificial
- B) Natural
- C) Phylogenetic
- D) Numerical

Q494: Which algae is source of agar?

- A) Ulothrix
- B) Sargassum
- C) Gelidium
- D) Chlorella

Q495: Which tissue lies between xylem and phloem?

- A) Cortex
- B) Cambium
- C) Pericycle
- D) Pith

Q496: Which plastid stores oils and fats?

- A) Amyloplast
- B) Chromoplast
- C) Elaioplast
- D) Chloroplast

Q497: Which nitrogenous base is absent in RNA?

- A) Adenine
- B) Guanine
- C) Cytosine
- D) Thymine

Q498: Which stage of mitosis involves alignment of chromosomes at equator?

- A) Prophase
- B) Metaphase
- C) Anaphase
- D) Telophase

Q499: Which force explains upward movement of sap according to cohesion-tension theory?

- A) Root pressure
- B) Capillarity
- C) Transpiration pull
- D) Diffusion

Q500: Which international agreement focuses on control of ozone-depleting substances?

- A) Kyoto Protocol
- B) Montreal Protocol
- C) Ramsar Convention
- D) Convention on Biological Diversity