

Quiz: Botany set 11

Q501: Which taxonomic rank is placed immediately above species?

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

Q502: Which algal group contains chlorophyll a, c and fucoxanthin?

- A) Chlorophyceae
- B) Rhodophyceae
- C) Phaeophyceae
- D) Cyanophyceae

Q503: Which plant group shows sporophytic dominance with independent sporophyte?

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

Q504: The edible part of wheat grain is:

- A) Embryo
- B) Endosperm
- C) Pericarp
- D) Aleurone layer

Q505: Which tissue is responsible for increase in length of roots?

- A) Apical meristem
- B) Intercalary meristem
- C) Lateral meristem
- D) Cork cambium

Q506: Caspary strips are impermeable to:

- A) Water
- B) Ions
- C) Gases
- D) Cell sap

Q507: Which cell organelle is involved in detoxification of drugs?

- A) Rough ER
- B) Smooth ER
- C) Golgi apparatus
- D) Lysosome

Q508: Which carbohydrate forms the structural framework of plant cell wall?

- A) Starch
- B) Cellulose
- C) Glycogen

D) Sucrose

Q509: Which phase of cell cycle shows maximum growth and preparation?

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

Q510: Movement of solutes from higher to lower concentration without energy is:

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

Q511: Which macronutrient is required for synthesis of proteins?

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

Q512: Which pigment absorbs maximum light at 700 nm?

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

Q513: Which compound acts as CO₂ acceptor in Calvin cycle?

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

Q514: Which respiratory step occurs in mitochondrial matrix?

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

Q515: Which plant hormone promotes senescence?

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

Q516: Which cell of embryo sac participates directly in fertilisation?

- A) Synergid
- B) Antipodal
- C) Egg cell
- D) Central cell

Q517: Which breeding method is useful for improvement of cross-pollinated crops?

- A) Pureline selection
- B) Mass selection
- C) Selfing
- D) Clonal selection

Q518: Which microorganism is used in production of streptokinase?

- A) Streptococcus
- B) Penicillium
- C) Aspergillus
- D) Rhizopus

Q519: Which enzyme synthesises DNA from RNA template?

- A) DNA polymerase
- B) RNA polymerase
- C) Reverse transcriptase
- D) Ligase

Q520: Which parameter denotes number of individuals per unit area?

- A) Natality
- B) Mortality
- C) Population density
- D) Carrying capacity

Q521: Which trophic level occupies the first position in food chain?

- A) Primary consumers
- B) Secondary consumers
- C) Producers
- D) Decomposers

Q522: Which biodiversity pattern shows increase in species with area?

- A) Latitudinal gradient
- B) Species-area relationship
- C) Succession
- D) Island biogeography

Q523: Which pollutant is responsible for biomagnification?

- A) Carbon dioxide
- B) Sulphur dioxide
- C) DDT
- D) Nitrates

Q524: Which taxonomic aid gives detailed description of a single taxon?

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

Q525: Which algae shows haplontic life cycle?

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

Q526: Which tissue provides flexibility to plant organs?

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

Q527: Which plastid stores starch?

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

Q528: Which nitrogenous base is absent in DNA?

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

Q529: Which stage of meiosis shows pairing of homologous chromosomes?

- A) Leptotene
- B) Zygote
- C) Pachytene
- D) Diplotene

Q530: Which phenomenon explains upward movement of water in plants?

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

Q531: Which micronutrient is part of plastocyanin?

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

Q532: Which pathway fixes CO₂ at night in plants?

- A) C₃ pathway
- B) C₄ pathway
- C) CAM pathway
- D) Calvin cycle

Q533: Which respiratory substrate gives RQ equal to 1?

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

Q534: Which hormone breaks seed dormancy?

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

Q535: Which part of ovule gives rise to seed coat?

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

Q536: Which breeding method repeatedly crosses hybrid with superior parent?

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

Q537: Which microorganism is used in production of acetic acid?

- A) Saccharomyces
- B) Acetobacter
- C) Lactobacillus
- D) Clostridium

Q538: Which technique is used to detect specific DNA sequences?

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

Q539: Which dispersion pattern shows individuals evenly spaced?

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

Q540: Which ecological pyramid represents rate of energy flow?

- A) Pyramid of numbers
- B) Pyramid of biomass
- C) Pyramid of energy
- D) Pyramid of productivity

Q541: Which biome is characterised by low temperature and coniferous vegetation?

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

Q542: Which gas is mainly responsible for acid rain?

- A) CO₂
- B) SO₂
- C) CH₄
- D) N₂

Q543: Which classification system considers evolutionary history?

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

Q544: Which algae is a source of agar?

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

Q545: Which tissue lies between epidermis and vascular bundles?

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

Q546: Which plastid imparts colour to fruits and flowers?

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

Q547: Which nitrogenous base pairs with adenine in DNA?

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

Q548: Which stage of mitosis involves separation of sister chromatids?

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

Q549: Which force explains ascent of sap according to cohesion-tension theory?

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

Q550: Which international agreement aims to conserve biodiversity?

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