

# Quiz: Botany set 11

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**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: Casparian 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 CO<sub>2</sub> 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) Zygotene
- 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 CO<sub>2</sub> at night in plants?**

- A) C<sub>3</sub> pathway
- B) C<sub>4</sub> 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) Absciscic 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) CO<sub>2</sub>
- B) SO<sub>2</sub>
- C) CH<sub>4</sub>
- D) N<sub>2</sub>

**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