

## **Quiz: Botany set 29**

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**Q1401: Which taxonomic category is a group of related genera?**

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

**Q1402: Which algal group contains fucoxanthin as a characteristic pigment?**

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

**Q1403: Which plant group shows embryo development but lacks vascular tissue?**

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

**Q1404: The edible part of coconut is:**

- A) Embryo
- B) Endosperm
- C) Cotyledon
- D) Testa

**Q1405: Which tissue gives rise to lateral roots?**

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

**Q1406: Which cell wall component provides tensile strength?**

- A) Cellulose
- B) Pectin
- C) Lignin
- D) Suberin

**Q1407: Which organelle is the site of synthesis of phospholipids and steroids?**

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

**Q1408: Which biomolecule shows maximum structural diversity in cells?**

- A) Carbohydrates
- B) Lipids
- C) Proteins

D) Nucleic acids

**Q1409: Which phase of cell cycle is also called synthesis phase?**

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

**Q1410: Passive movement of ions through membrane proteins is termed:**

- A) Active transport
- B) Facilitated diffusion
- C) Mass flow
- D) Osmosis

**Q1411: Which mineral nutrient activates many enzymes and maintains ionic balance?**

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

**Q1412: Which pigment is the primary pigment of photosynthesis?**

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

**Q1413: Which compound is the first stable product of C3 pathway?**

- A) RuBP
- B) OAA
- C) 3-phosphoglyceric acid
- D) Malic acid

**Q1414: Which respiratory step involves oxidative decarboxylation of pyruvate?**

- A) Glycolysis
- B) Link reaction
- C) Krebs cycle
- D) ETC

**Q1415: Which plant hormone promotes bolting in rosette plants?**

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

**Q1416: Which structure of embryo sac degenerates after fertilisation?**

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

**Q1417: Which breeding method is most suitable for cross-pollinated crops?**

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

**Q1418: Which microorganism is used for production of ethanol?**

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

**Q1419: Which enzyme is responsible for unwinding DNA during replication?**

- A) Ligase
- B) Primase
- C) Helicase
- D) Polymerase

**Q1420: Which population parameter represents number of deaths per unit time?**

- A) Natality
- B) Mortality
- C) Immigration
- D) Emigration

**Q1421: Which trophic level has maximum energy availability?**

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

**Q1422: Which biodiversity level includes total diversity of a geographical region?**

- A) Alpha diversity
- B) Beta diversity
- C) Gamma diversity
- D) Genetic diversity

**Q1423: Which pollutant causes thinning of eggshells in birds?**

- A) DDT
- B) SO<sub>2</sub>
- C) CO
- D) NO<sub>2</sub>

**Q1424: Which taxonomic aid provides preserved plant specimens for reference?**

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

**Q1425: Which algae shows haplodiplontic life cycle?**

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

**Q1426: Which plant tissue is living and forms bulk of plant body?**

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

**Q1427: Which plastid is involved in photosynthesis?**

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

**Q1428: Which nitrogenous base pairs with cytosine?**

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

**Q1429: Which stage of meiosis shows terminalisation of chiasmata?**

- A) Pachytene
- B) Diplotene
- C) Diakinesis
- D) Zygotene

**Q1430: Which force is least effective in ascent of sap?**

- A) Transpiration pull
- B) Cohesion
- C) Adhesion
- D) Root pressure

**Q1431: Which micronutrient is a component of nitrogenase enzyme?**

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

**Q1432: Which pathway reduces photorespiration by spatial separation of steps?**

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

**Q1433: Which respiratory substrate gives respiratory quotient equal to 1?**

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

**Q1434: Which hormone induces abscission of leaves?**

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

**Q1435: Which part of ovule develops into seed coat?**

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

**Q1436: Which breeding method produces homozygous lines rapidly?**

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

**Q1437: Which microorganism is used in biogas production?**

- A) Rhizobium
- B) Methanobacterium
- C) Nitrosomonas
- D) Saccharomyces

**Q1438: Which technique is used to separate DNA fragments based on size?**

- A) PCR
- B) ELISA
- C) Gel electrophoresis
- D) Blotting

**Q1439: Which dispersion pattern indicates aggregation of individuals?**

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

**Q1440: Which ecological pyramid is always upright?**

- A) Numbers
- B) Biomass
- C) Energy
- D) All

**Q1441: Which biome is characterised by grasslands with scattered trees?**

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

**Q1442: Which gas is the major contributor to greenhouse effect?**

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

**Q1443: Which system of classification reflects evolutionary history?**

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

**Q1444: Which algae is a source of carrageenan?**

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

**Q1445: Which tissue lies just inside endodermis in roots?**

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

**Q1446: Which plastid imparts colour to ripe fruits?**

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

**Q1447: Which nitrogenous base pairs with adenine in RNA?**

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

**Q1448: Which stage of mitosis shows separation of sister chromatids?**

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

**Q1449: Which force contributes least to ascent of sap?**

- A) Transpiration pull
- B) Cohesion
- C) Adhesion
- D) Root pressure

**Q1450: Which international agreement focuses on conservation of wetlands?**

- A) Kyoto Protocol
- B) Montreal Protocol
- C) Ramsar Convention
- D) CBD