

## **Quiz: Botany set 21**

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**Q1001: Which taxonomic category is placed immediately above species?**

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

**Q1002: Which algal group lacks true roots, stems and leaves and is commonly called thalloid?**

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

**Q1003: Which plant group has sporophyte completely dependent on gametophyte?**

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

**Q1004: The edible part of wheat grain belongs to which tissue?**

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

**Q1005: Which tissue is responsible for secondary growth in dicot root?**

- A) Apical meristem
- B) Intercalary meristem
- C) Lateral meristem
- D) Protoderm

**Q1006: Which cell wall component provides elasticity to growing tissues?**

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

**Q1007: Which organelle contains oxidative enzymes and helps in detoxification?**

- A) Lysosome
- B) Peroxisome
- C) Golgi apparatus
- D) Ribosome

**Q1008: Which biomolecule shows highest molecular diversity?**

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

D) Nucleic acids

**Q1009: Which stage of cell cycle is considered a checkpoint for cell division?**

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

**Q1010: Movement of water from region of higher water potential to lower water potential is called:**

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

**Q1011: Which mineral nutrient is a component of ferredoxin?**

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

**Q1012: Which pigment is responsible for absorption of blue-violet light?**

- A) Chlorophyll a
- B) Chlorophyll b
- C) Carotenoids
- D) Phycobilins

**Q1013: Which compound is the first stable product of C3 cycle?**

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

**Q1014: Which respiratory step releases maximum CO<sub>2</sub>?**

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

**Q1015: Which plant hormone promotes senescence and fruit ripening?**

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

**Q1016: Which cell of embryo sac degenerates before fertilisation?**

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

D) Central cell

**Q1017: Which breeding method is useful for improving cross-pollinated crops?**

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

**Q1018: Which microorganism is used in production of antibiotics like tetracycline?**

- A) Penicillium
- B) Streptomyces
- C) Rhizobium
- D) Nitrosomonas

**Q1019: Which enzyme unwinds DNA during replication?**

- A) DNA ligase
- B) DNA polymerase
- C) Helicase
- D) Primase

**Q1020: Which population parameter increases population size by arrival of individuals?**

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

**Q1021: Which trophic level converts solar energy into chemical energy?**

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

**Q1022: Which biodiversity pattern explains increase in species richness with area?**

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

**Q1023: Which pollutant causes biomagnification and eggshell thinning in birds?**

- A) Mercury
- B) DDT
- C) Cadmium
- D) Lead

**Q1024: Which taxonomic aid includes dried plant specimens mounted on sheets?**

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

**Q1025: Which algae shows isomorphic alternation of generations?**

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

**Q1026: Which plant tissue is living but lacks chloroplasts?**

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

**Q1027: Which plastid is involved in synthesis of fatty acids?**

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

**Q1028: Which nitrogenous base is absent in DNA?**

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

**Q1029: Which stage of meiosis shows terminalisation of chiasmata?**

- A) Pachytene
- B) Diplotene
- C) Diakinesis
- D) Metaphase I

**Q1030: Which force is generated due to evaporation of water from leaves?**

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

**Q1031: Which micronutrient activates enzymes of nitrogen metabolism?**

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

**Q1032: Which pathway reduces photorespiration by temporal separation?**

- A) C<sub>3</sub> pathway
- B) C<sub>4</sub> pathway
- C) CAM pathway
- D) Calvin cycle

**Q1033: Which respiratory substrate gives respiratory quotient equal to 1?**

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

**Q1034: Which hormone is known as stress hormone in plants?**

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

**Q1035: Which part of ovule develops into seed coat?**

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

**Q1036: Which breeding method uses chemicals or radiation to induce variation?**

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

**Q1037: Which microorganism is used in production of lactic acid?**

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

**Q1038: Which technique separates DNA fragments on the basis of size?**

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

**Q1039: Which dispersion pattern indicates patchy distribution of organisms?**

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

**Q1040: Which ecological pyramid is always upright?**

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

**Q1041: Which biome is characterised by coniferous forests?**

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

**Q1042: Which gas mainly contributes to global warming?**

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

**Q1043: Which classification system is based on evolutionary relationships?**

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

**Q1044: Which algae is a source of carrageenan?**

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

**Q1045: Which tissue lies just inside the endodermis?**

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

**Q1046: Which plastid imparts colour to ripe fruits?**

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

**Q1047: Which nitrogenous base pairs with adenine in RNA?**

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

**Q1048: Which stage of mitosis shows separation of sister chromatids?**

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

**Q1049: Which force contributes least to ascent of sap in tall trees?**

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

**Q1050: Which international agreement focuses on conservation of wetlands?**

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