

Quiz: Botany set 21

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 CO₂?

- 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) C₃ pathway
- B) C₄ 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) Absciscic 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