

Quiz: Botany set 14

Q651: Which taxonomic category represents the highest level of organisation in the plant kingdom?

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

Q652: Which algal group stores reserve food as laminarin and mannitol?

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

Q653: Which plant group shows well-developed vascular tissues but lacks seeds?

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

Q654: The edible part of castor seed is:

- A) Cotyledons
- B) Endosperm
- C) Perisperm
- D) Testa

Q655: Which meristem is responsible for increase in girth of stem?

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

Q656: Which substance impregnates walls of cork cells?

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

Q657: Which cell organelle is absent in mature red blood cells of mammals?

- A) Ribosome
- B) Mitochondria
- C) Nucleus
- D) Plasma membrane

Q658: Which biomolecule serves as energy currency of the cell?

- A) ADP
- B) ATP
- C) AMP
- D) GTP

Q659: Which phase of cell cycle directly precedes mitosis?

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

Q660: Passive movement of water across semipermeable membrane is called:

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

Q661: Which nutrient is a constituent of nucleic acids?

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

Q662: Which pigment absorbs light mainly in blue and red regions?

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

Q663: Which compound is the first stable product of C4 pathway?

- A) PEP
- B) RuBP
- C) Oxaloacetic acid
- D) Malic acid

Q664: Which respiratory step yields maximum ATP?

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

Q665: Which hormone delays senescence of leaves?

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

Q666: Which part of ovule remains as scar on seed coat?

- A) Micropyle
- B) Hilum
- C) Chalaza
- D) Funiculus

Q667: Which breeding method exploits heterosis commercially?

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

Q668: Which microorganism is used in production of biogas?

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

Q669: Which enzyme cuts DNA at specific recognition sites?

- A) DNA ligase
- B) DNA polymerase
- C) Restriction endonuclease
- D) Reverse transcriptase

Q670: Which population parameter represents births per unit time?

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

Q671: Which trophic level contains maximum biomass in terrestrial ecosystems?

- A) Producers
- B) Primary consumers
- C) Secondary consumers
- D) Top carnivores

Q672: Which biodiversity level measures diversity between ecosystems?

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

Q673: Which pollutant is responsible for Itai-itai disease?

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

Q674: Which taxonomic aid gives detailed information about plants of a region?

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

Q675: Which algae shows diplontic life cycle?

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

Q676: Which tissue consists of living cells with unevenly thickened corners?

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

Q677: Which plastid is involved in synthesis and storage of oils?

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

Q678: Which nitrogenous base is absent in RNA?

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

Q679: Which stage of meiosis shows crossing over?

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

Q680: Which force mainly explains ascent of sap in tall trees?

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

Q681: Which micronutrient is a component of plastocyanin?

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

Q682: Which pathway fixes CO₂ at night?

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

Q683: Which respiratory substrate gives RQ less than 1?

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

Q684: Which hormone is responsible for fruit ripening?

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

Q685: Which part of ovule develops into seed coat?

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

Q686: Which breeding method transfers a specific gene to elite variety?

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

Q687: Which microorganism is used in production of citric acid?

- A) Penicillium
- B) Aspergillus niger
- C) Rhizopus
- D) Saccharomyces

Q688: Which technique is used to separate DNA fragments by size?

- A) PCR
- B) ELISA
- C) Gel electrophoresis
- D) Southern blotting

Q689: Which dispersion pattern shows individuals evenly spaced?

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

Q690: Which ecological pyramid is always upright?

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

Q691: Which biome is characterised by permanently frozen subsoil?

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

Q692: Which gas is responsible for ozone layer depletion?

- A) CO₂
- B) SO₂
- C) CFCs
- D) CH₄

Q693: Which system of classification is based on evolutionary relationships?

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

Q694: Which algae is used as source of agar?

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

Q695: Which tissue lies just below epidermis in dicot stem?

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

Q696: Which plastid imparts colour to fruits and flowers?

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

Q697: Which nitrogenous base pairs with adenine in DNA?

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

Q698: Which stage of mitosis shows separation of sister chromatids?

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

Q699: Which force explains ascent of sap according to cohesion-tension theory?

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

Q700: Which international agreement focuses on conservation of wetlands?

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