

Quiz: Botany set 13

Q601: Which taxonomic rank includes one or more related genera?

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

Q602: Which algal group has flagellated cells with unequal flagella?

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

Q603: Which plant group has sporophyte completely dependent on gametophyte?

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

Q604: The edible part of gram seed is:

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

Q605: Which tissue forms cork in woody plants?

- A) Vascular cambium
- B) Cork cambium
- C) Apical meristem
- D) Intercalary meristem

Q606: Which component makes plant cell wall hydrophobic?

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

Q607: Which organelle is the site of protein synthesis?

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

Q608: Which biomolecule shows the highest molecular diversity?

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

D) Nucleic acids

Q609: Which phase of cell cycle is called synthesis phase?

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

Q610: Movement of ions across membrane against concentration gradient requires:

- A) Diffusion
- B) Osmosis
- C) ATP
- D) Mass flow

Q611: Which mineral nutrient is part of cytochrome oxidase?

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

Q612: Which pigment acts as accessory pigment in photosynthesis?

- A) Chlorophyll a
- B) Chlorophyll b
- C) P700
- D) P680

Q613: Which compound is regenerated during Calvin cycle?

- A) PEP
- B) RuBP
- C) OAA
- D) Malate

Q614: Which respiratory step occurs on inner mitochondrial membrane?

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

Q615: Which plant hormone is known as growth inhibitor?

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

Q616: Which cell of embryo sac guides pollen tube?

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

Q617: Which breeding method maintains genetic purity?

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

Q618: Which microorganism is used for production of biocontrol agent Trichoderma?

- A) Aspergillus
- B) Penicillium
- C) Trichoderma
- D) Rhizobium

Q619: Which enzyme is used to synthesise cDNA?

- A) DNA polymerase
- B) RNA polymerase
- C) Reverse transcriptase
- D) Ligase

Q620: Which population parameter represents deaths per unit time?

- A) Natality
- B) Mortality
- C) Density
- D) Dispersion

Q621: Which trophic level has maximum energy content?

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

Q622: Which biodiversity pattern shows decrease in species from equator to poles?

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

Q623: Which pollutant causes Minamata disease?

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

Q624: Which taxonomic aid lists scientific names of plants alphabetically?

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

Q625: Which algae shows haplodiplontic life cycle?

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

Q626: Which tissue provides mechanical strength to mature plant parts?

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

Q627: Which plastid is colourless and stores food?

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

Q628: Which nitrogenous base pairs with adenine in RNA?

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

Q629: Which stage of meiosis shows formation of bivalents?

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

Q630: Which force is mainly responsible for ascent of sap?

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

Q631: Which micronutrient is part of nitrogenase enzyme?

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

Q632: Which pathway fixes CO₂ at night?

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

Q633: Which respiratory substrate gives RQ greater than 1?

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

Q634: Which hormone promotes fruit ripening?

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

Q635: Which part of ovule develops into seed coat?

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

Q636: Which breeding method is used to transfer disease resistance gene?

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

Q637: Which microorganism is used in production of penicillin?

- A) Aspergillus
- B) Penicillium
- C) Rhizopus
- D) Trichoderma

Q638: Which technique is used to separate DNA fragments based on size?

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

Q639: Which dispersion pattern shows individuals clumped together?

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

Q640: Which ecological pyramid is always upright?

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

Q641: Which biome is characterised by low rainfall and sparse vegetation?

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

Q642: Which gas is responsible for global warming?

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

Q643: Which system of classification is based on evolutionary relationships?

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

Q644: Which algae is source of agar?

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

Q645: Which tissue lies between epidermis and vascular tissue?

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

Q646: Which plastid imparts colour to fruits?

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

Q647: Which nitrogenous base pairs with guanine?

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

Q648: Which stage of mitosis involves alignment of chromosomes at equator?

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

Q649: Which force explains ascent of sap according to cohesion-tension theory?

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

Q650: Which international agreement focuses on climate change mitigation?

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