

## Quiz: Botany set 20

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**Q951: Which taxonomic category represents the basic unit of classification?**

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

**Q952: Which algal pigment is water soluble and found in red algae?**

- A) Chlorophyll b
- B) Carotene
- C) Phycoerythrin
- D) Fucoxanthin

**Q953: Which plant group shows well-developed vascular tissue and seeds?**

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

**Q954: The edible part of groundnut seed is:**

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

**Q955: Which tissue gives rise to cork cambium in dicot stem?**

- A) Cortex
- B) Pericycle
- C) Phloem
- D) Xylem

**Q956: Which component of cell wall provides tensile strength?**

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

**Q957: Which organelle is the main site of ATP synthesis?**

- A) Chloroplast
- B) Mitochondria
- C) Golgi apparatus
- D) Ribosome

**Q958: Which biomolecule forms the genetic material in most organisms?**

- A) Protein
- B) RNA
- C) DNA

D) Lipid

**Q959: Which phase of cell cycle shows duplication of centrioles?**

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

**Q960: Movement of substances across membrane with expenditure of energy is called:**

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

**Q961: Which mineral nutrient is a component of chlorophyll molecule?**

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

**Q962: Which pigment is the reaction centre of photosystem I?**

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

**Q963: Which compound is regenerated in Calvin cycle after CO<sub>2</sub> fixation?**

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

**Q964: Which respiratory pathway yields maximum ATP?**

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

**Q965: Which plant hormone is responsible for apical dominance?**

- A) Auxin
- B) Cytokinin
- C) Ethylene
- D) Absciscic acid

**Q966: Which cell of embryo sac degenerates before fertilisation?**

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

**Q967: Which breeding method ensures development of homozygous lines?**

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

**Q968: Which microorganism is used in production of ethanol?**

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

**Q969: Which enzyme is used in PCR for DNA amplification?**

- A) DNA ligase
- B) RNA polymerase
- C) Taq DNA polymerase
- D) Restriction endonuclease

**Q970: Which population parameter represents movement of individuals out of a population?**

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

**Q971: Which trophic level has the least energy?**

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

**Q972: Which biodiversity level measures species diversity between communities?**

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

**Q973: Which pollutant is mainly responsible for biomagnification?**

- A) Carbon monoxide
- B) Sulphur dioxide
- C) DDT
- D) Ammonia

**Q974: Which taxonomic aid gives information about plants of a particular area?**

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

**Q975: Which algae shows diplontic life cycle?**

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

**Q976: Which plant tissue is dead and provides mechanical support?**

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

**Q977: Which plastid stores starch?**

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

**Q978: Which nitrogenous base is absent in RNA?**

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

**Q979: Which stage of meiosis shows separation of homologous chromosomes?**

- A) Anaphase I
- B) Anaphase II
- C) Metaphase I
- D) Telophase I

**Q980: Which force is mainly responsible for ascent of sap in tall trees?**

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

**Q981: Which micronutrient is involved in photolysis of water?**

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

**Q982: Which pathway reduces photorespiration by spatial separation of reactions?**

- A) C3 pathway
- B) C4 pathway
- C) CAM pathway
- D) Glycolysis

**Q983: Which respiratory substrate gives respiratory quotient equal to 1?**

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

**Q984: Which hormone induces stomatal closure during drought?**

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

**Q985: Which part of ovule persists as micropyle in seed?**

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

**Q986: Which breeding method induces variation artificially?**

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

**Q987: Which microorganism is used for production of vinegar?**

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

**Q988: Which technique is used to detect specific DNA fragments?**

- A) PCR
- B) ELISA
- C) Southern blotting
- D) Chromatography

**Q989: Which dispersion pattern indicates strong competition among individuals?**

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

**Q990: Which ecological pyramid is always upright?**

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

**Q991: Which biome has permanently frozen subsoil?**

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

**Q992: Which gas is responsible for ozone layer depletion?**

- A) Carbon dioxide
- B) Sulphur dioxide
- C) Chlorofluorocarbons
- D) Methane

**Q993: Which classification system is based on evolutionary relationships?**

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

**Q994: Which algae is a source of agar?**

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

**Q995: Which tissue lies just inside the endodermis?**

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

**Q996: Which plastid is involved in photosynthesis?**

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

**Q997: Which nitrogenous base pairs with adenine in RNA?**

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

**Q998: Which stage of mitosis shows alignment of chromosomes at equatorial plate?**

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

**Q999: Which force explains ascent of sap according to cohesion-tension theory?**

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

**Q1000: Which international agreement aims to conserve biodiversity globally?**

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