

## **Quiz: Botany set 30**

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**Q1451: Which taxonomic category represents the highest level of similarity among organisms?**

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

**Q1452: Which algal group stores food in the form of laminarin?**

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

**Q1453: Which plant group is called amphibians of the plant kingdom?**

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

**Q1454: The edible part of groundnut seed is:**

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

**Q1455: Which tissue forms secondary xylem and phloem?**

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

**Q1456: Which cell wall component is mainly responsible for flexibility of growing cells?**

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

**Q1457: Which organelle is involved in intracellular digestion?**

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

**Q1458: Which biomolecule forms the backbone of nucleic acids?**

- A) Nitrogenous bases
- B) Sugars
- C) Phosphate groups

D) Nucleotides

**Q1459: Which phase of cell cycle is characterised by DNA replication?**

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

**Q1460: Movement of water through xylem vessels is an example of:**

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

**Q1461: Which mineral nutrient is required for opening and closing of stomata?**

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

**Q1462: Which pigment absorbs maximum light in blue region?**

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

**Q1463: Which compound is regenerated in Calvin cycle?**

- A) 3-PGA
- B) OAA
- C) RuBP
- D) PEP

**Q1464: Which respiratory pathway yields CO<sub>2</sub> as a by-product?**

- A) Glycolysis
- B) Krebs cycle
- C) ETC
- D) Fermentation

**Q1465: Which plant hormone is responsible for apical dominance?**

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

**Q1466: Which part of flower develops into fruit?**

- A) Ovule
- B) Ovary
- C) Style
- D) Stigma

**Q1467: Which breeding method involves selection from mixed population?**

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

**Q1468: Which microorganism is used in production of antibiotics?**

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

**Q1469: Which enzyme synthesises DNA strand during replication?**

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

**Q1470: Which population parameter indicates number of births per unit time?**

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

**Q1471: Which trophic level has maximum energy content?**

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

**Q1472: Which biodiversity level measures variation within a species?**

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

**Q1473: Which pollutant is responsible for acid rain?**

- A) CO<sub>2</sub>
- B) SO<sub>2</sub>
- C) CH<sub>4</sub>
- D) O<sub>2</sub>

**Q1474: Which taxonomic aid includes description of plants of a region?**

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

**Q1475: Which algae shows diplontic life cycle?**

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

**Q1476: Which plant tissue is dead at maturity and provides mechanical support?**

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

**Q1477: Which plastid stores proteins?**

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

**Q1478: Which nitrogenous base is present only in RNA?**

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

**Q1479: Which stage of meiosis shows separation of homologous chromosomes?**

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

**Q1480: Which force is the main cause of ascent of sap in tall trees?**

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

**Q1481: Which micronutrient is involved in photolysis of water?**

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

**Q1482: Which pathway reduces photorespiration by spatial separation?**

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

**Q1483: Which respiratory substrate gives respiratory quotient equal to 1?**

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

**Q1484: Which hormone induces dormancy and inhibits growth?**

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

**Q1485: Which part of ovule persists as micropyle in seed?**

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

**Q1486: Which breeding method is used to introduce a specific gene into an elite variety?**

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

**Q1487: Which microorganism is used in sewage treatment?**

- A) Rhizobium
- B) Methanobacterium
- C) Saccharomyces
- D) Penicillium

**Q1488: Which technique is used to separate DNA fragments by size?**

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

**Q1489: Which dispersion pattern shows uniform spacing of individuals?**

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

**Q1490: Which ecological pyramid is always upright?**

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

**Q1491: Which biome is characterised by permanently frozen subsoil?**

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

**Q1492: Which gas is mainly responsible for greenhouse effect?**

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

**Q1493: Which classification system is based on evolutionary relationships?**

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

**Q1494: Which algae is a source of agar?**

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

**Q1495: Which tissue lies just inside endodermis in root?**

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

**Q1496: Which plastid imparts colour to fruits and flowers?**

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

**Q1497: Which nitrogenous base pairs with adenine in RNA?**

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

**Q1498: Which stage of mitosis shows alignment of chromosomes at equatorial plate?**

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

**Q1499: Which force contributes least to ascent of sap in tall trees?**

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

**Q1500: Which international agreement focuses on conservation of wetlands?**

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