

Quiz: Botany set 7

Q301: Which taxonomic category is characterised by organisms having maximum number of shared characters?

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

Q302: Which algal pigment is responsible for red colour in red algae?

- A) Chlorophyll a
- B) Phycoerythrin
- C) Phycocyanin
- D) Fucoxanthin

Q303: Which plant group lacks true roots, stems and leaves?

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

Q304: The edible part of sunflower seed is:

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

Q305: Which tissue is responsible for secondary growth in dicot stem?

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

Q306: Which layer of cell wall is lignified in sclerenchyma?

- A) Primary wall
- B) Middle lamella
- C) Secondary wall
- D) Plasma membrane

Q307: Which organelle is the site of ribosome assembly?

- A) Nucleolus
- B) Nucleus
- C) Golgi apparatus
- D) Endoplasmic reticulum

Q308: Which carbohydrate is a structural polysaccharide in plants?

- A) Starch
- B) Glycogen
- C) Cellulose
- D) Sucrose

Q309: Which checkpoint ensures proper attachment of spindle fibres?

- A) Restriction point
- B) DNA damage checkpoint
- C) Spindle checkpoint
- D) Cyclin checkpoint

Q310: Movement of water due to transpiration pull occurs through:

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

Q311: Which element is a component of chlorophyll but not part of its porphyrin ring?

- A) Nitrogen
- B) Magnesium
- C) Iron
- D) Carbon

Q312: Which photosystem is involved in non-cyclic photophosphorylation?

- A) Photosystem I only
- B) Photosystem II only
- C) Both PS I and PS II
- D) Neither PS I nor PS II

Q313: Which respiratory pathway occurs in both aerobic and anaerobic conditions?

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

Q314: Which hormone is responsible for inhibition of lateral bud growth?

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

Q315: Which type of embryo development is common in angiosperms?

- A) Cleavage polyembryony
- B) Adventive embryony
- C) Monocot embryo
- D) Zygotic embryo

Q316: Which breeding method is used to improve quantitative traits?

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

Q317: Which microorganism is used in production of lactic acid?

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

Q318: Which enzyme is used to synthesise complementary DNA?

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

Q319: Population interaction in which one species is harmed and other is unaffected is:

- A) Mutualism
- B) Commensalism
- C) Parasitism
- D) Amensalism

Q320: Which productivity is expressed as rate of biomass formation?

- A) Gross primary productivity
- B) Net primary productivity
- C) Secondary productivity
- D) Standing crop

Q321: Which conservation strategy protects species in natural habitat?

- A) Seed bank
- B) Botanical garden
- C) In situ conservation
- D) Cryopreservation

Q322: Which gas contributes maximum to global warming?

- A) Methane
- B) Nitrous oxide
- C) Carbon dioxide
- D) Chlorofluorocarbons

Q323: Artificial system of classification is based on:

- A) Evolutionary relationships
- B) Overall similarities
- C) One or few characters
- D) Genetic similarities

Q324: Which algae shows haplodiplontic life cycle?

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

Q325: Which tissue is responsible for conduction of food in plants?

- A) Xylem
- B) Phloem
- C) Cambium
- D) Parenchyma

Q326: Which plastid stores starch grains?

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

Q327: Which nitrogenous base pairs with guanine in DNA?

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

Q328: Which stage of mitosis shows separation of sister chromatids?

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

Q329: Which force is responsible for upward movement of water in tall trees?

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

Q330: Which micronutrient is involved in photolysis of water?

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

Q331: Which pathway fixes CO₂ at night?

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

Q332: Which respiratory substrate gives RQ greater than 1?

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

Q333: Which hormone accelerates fruit ripening?

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

Q334: Which structure connects ovule to ovary wall?

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

Q335: Which breeding method is used to transfer a single desirable gene?

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

Q336: Which microorganism is used for production of cyclosporin A?

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

Q337: Which technique is used to multiply DNA in vitro?

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

Q338: Emigration affects population by:

- A) Increasing size
- B) Decreasing size
- C) No change
- D) Increasing birth rate

Q339: Which ecological pyramid is always upright?

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

Q340: Which biome is characterised by permafrost?

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

Q341: Which pollutant causes fluorosis?

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

Q342: Natural system of classification considers:

- A) Only vegetative characters
- B) Only floral characters
- C) Overall morphological similarities
- D) One diagnostic character

Q343: Which algae is used as source of algin?

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

Q344: Which tissue lies outside vascular bundle in stem?

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

Q345: Which plastid develops from chloroplast during senescence?

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

Q346: Which bond joins amino acids?

- A) Glycosidic bond
- B) Ester bond
- C) Peptide bond
- D) Phosphodiester bond

Q347: Which stage of meiosis shows synapsis of homologous chromosomes?

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

Q348: Which phenomenon explains movement of food in phloem?

- A) Diffusion
- B) Osmosis
- C) Mass flow hypothesis
- D) Root pressure

Q349: Which macronutrient is required for synthesis of proteins?

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

Q350: Which international agreement deals with biodiversity conservation?

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