

PRACTICE QUESTIONS FOR PLANT AND FUNGI MIDTERM

There is a single correct answer for each question – choose the **MOST** appropriate answer.

- 1) Water potential is generally **MOST NEGATIVE** in which of the following parts of a plant?
 - a) Mesophyll cells
 - b) Xylem vessels in leaves
 - c) Xylem vessels in roots
 - d) Cells of the root cortex
 - e) Root hairs

- 2) If a short-day plant has a critical night length of 15 hours, then which of the following 24-hour cycles will **PREVENT** flowering?
 - a) 8 hours light/16 hours dark
 - b) 4 hours light/20 hours dark
 - c) 6 hours light/2 hours dark/light flash/16 hours dark
 - d) 8 hours light/8 hours dark/light flash/8 hours dark
 - e) 2 hours light/20 hours dark/2 hours light

- 3) In the life cycle of an angiosperm, which of the following stages is/are diploid?
 - a) Megaspore only
 - b) Generative nucleus of a pollen grain only
 - c) Polar nuclei of the embryo sac only
 - d) Microsporocyte only

- 4) Which of the following describes the fate of **MOST** of the water taken up by a plant?
 - a) It is used as a solvent.
 - b) It is used as a hydrogen source in photosynthesis.
 - c) It is lost during transpiration.
 - d) It makes cell elongation possible.
 - e) It is used to keep cells turgid.

- 5) Where, and by which process are sperm produced in plants?
 - a) Meiosis in pollen grains.
 - b) Meiosis in anthers.
 - c) Mitosis in male gametophytes.
 - d) Mitosis in the micropyle.

- 6) Which of the following is **FALSE** about the life cycle of mosses?
 - a) External water is required for photosynthesis.
 - b) Flagellated sperm are produced.
 - c) Antheridia and archegonia are produced by gametophytes.
 - d) Gametes are directly produced by meiosis.

- 7) All of the following plant structures are adaptations specifically for a terrestrial environment **EXCEPT**:
- a) Roots
 - b) Xylem
 - c) Cell walls
 - d) Waxy cuticle
 - e) Seeds
- 8) An individual flower could **NOT** lack **BOTH**:
- a) Sepals and petals
 - b) Sepals and carpels
 - c) Petals and carpels
 - d) Petals and stamens
 - e) Carpels and stamens
- 9) In dicot angiosperms and gymnosperms, what layer of cells designates the boundary between wood and bark?
- a) The vascular cambium.
 - b) The cork cambium
 - c) The casparian strip
 - d) The periderm
- 10) The stalk of a mushroom contains _____ cells.
The hyphae of a(n) _____ contain crosswalls.
- a) haploid Ascomycete
 - b) diploid Ascomycete
 - c) dikaryotic Ascomycete
 - d) haploid Zygomycete
 - e) diploid Zygomycete