

## Quiz - Pollen Tube

### Part A: True/False Questions

1. Reproduction of flowering plants involves pollination.
2. Reproduction of flowering plants only involves fertilization.
3. Pollen cannot be carried by water from one flower to another.
4. The process of nucleus carried by pollen grain moving to the egg for fertilization to occur takes place through pollen tube.
5. All pollen will be stimulated when pollen grains land on stigma.
6. If the protein coat on grain is compatible, germination will start.
7. Formation of cell wall is the only step involved in the growth of pollen tube.
8. Growth of pollen tube is microfilament-dependent.
9. Short actin mesh network is mainly found at the tip region of the pollen tube.
10. Wortmannin is a drug which can only affect the organization of actin filament.

### Part B: Multiple Choice Questions

1. What process is involved in reproduction of flowering plant?
  - A. Pollination
  - B. Fertilization
  - C. Both A and B
  - D. None of the above
2. What does pollination of flowering plants refer to?
  - A. Transportation of pollen grain from anther to stigma of another flower
  - B. Transportation of pollen grain from anther to stigma of the same flower
  - C. Both A and B
  - D. None of the above
3. What can carry pollen from one flower to another?
  - A. Wind
  - B. Animal
  - C. Water
  - D. All of the above
4. Where will the nucleus carried by pollen grain move to?
  - A. Egg
  - B. Testes
  - C. Root
  - D. Stem
5. What kinds of pollen will be stimulated?
  - A. Mature ones

- B. Pollens from the same species
  - C. A and B
  - D. All pollens
6. What organ of the plant is responsible for selecting which pollen is to be stimulated?
- A. Pistil
  - B. Stem
  - C. Root
  - D. None of the above
7. What does pistil refer to for pollen choosing process?
- A. RNA
  - B. DNA
  - C. Protein coat on the grain
  - D. None of the above
8. After hydrated by the stigma, which organelles will dispose post- Golgi vesicles to tip growth domain?
- A. Cell wall
  - B. Golgi apparatus
  - C. Nucleus
  - D. Vacuole
9. What can stimulate the pollen grain when it lands on the stigma?
- A. Sucrose
  - B. Glucose
  - C. Protein
  - D. Fatty acids
10. What kinds of substances can be found in post-Golgi vesicles?
- A. Auxin
  - B. Pectin
  - C. Ethylene
  - D. Cytokinin