

## Quiz - Cytokinesis

### Part A: True/False Questions

1. Telophase is followed by metaphase in cell division.
2. Anaphase is followed by prophase in cell division.
3. Cytokinesis is essential for separation of daughter cell from each other.
4. Myosin II moves along the actin filament using the energy from hydrolysis of ATP.
5. Cytokinesis of animal cells is similar to plant cells.
6. Plant cells use cell plate for cytokinesis instead of contractile ring.
7. Cytokinesis in animal cells are generally slower than plant cells.
8. Non-muscle myosin II and actin filament assemble at cell complex first and form a contractile ring.
9. In cytokinesis of plant cells, daughter cells are adjacent to each other.
10. Cytokinesis is not included in cell cycle. It is a separate process.

### Part B: Multiple Choice Questions

1. What process is involved in cell division?
  - A. Interphase
  - B. Cytokinesis
  - C. Mitosis
  - D. All of the above
2. What is the purpose of interphase?
  - A. Replication of genetic materials
  - B. Chromosomes move away from one another to opposite poles of the spindle
  - C. Sister chromatids reach opposite poles
  - D. Chromatins condense
3. What of the following is used by animal cells for cytokinesis?
  - A. Contractile ring
  - B. Cell plate
  - C. Vacuole
  - D. None of the above
4. What is the use of phragmoplast in plant cell during cytokinesis?
  - A. Provides energy
  - B. Supports cell plate
  - C. Provides structure materials
  - D. None of the above
5. Which of the following organelles is responsible for producing vesicles that contains cell plate materials?
  - A. Nucleus
  - B. Mitochondria
  - C. Golgi apparatus

- D. Cell membrane
6. Which of the following is involved in separation of two daughter cells in animal cells?
- A. Non-muscle myosin II
  - B. Actin filament
  - C. Both A and B
  - D. None of the above
7. Please put the following processes in cell cycle in correct order.
- 1) Metaphase
  - 2) Telophase
  - 3) Anaphase
  - 4) Prophase
- A. A, C, D, B
  - B. D, A, C, B
  - C. C, D, B, A
  - D. A, C, B, D
8. What does mitosis aim at?
- A. Chromosomes move away from one another to opposite poles of the spindle
  - B. Assorts the replicated genetic materials to daughter cells equally
  - C. Assorts the replicated genetic materials to daughter cells randomly
  - D. None of the above
9. How much percentage does cytokinesis take up in a cell cycle?
- A. <5%
  - B. ~5%
  - C. ~10%
  - D. >20%
10. How did primitive cell plate separate two daughter cells at the last stage of cytokinesis?
- A. Forms a circle around a group of organelles
  - B. Breaks down original cell wall
  - C. Fuses with cell wall at two ends
  - D. None of the above