**Directions**: Use distractor analysis on #1-2 first, then answer questions completely.

**STATION 1**: Interphase

1.Interphase is the part of the cell cycle that occurs between cell divisions, allowing the cell time to properly prepare for the next division. During which part of interphase are chromosomes duplicated?

        A. S         B. G2  C. G1 D. S2

2. What of the following is considered a gamete?

       A. human skin cell   C. a fly’s eye
 B. root tip cell D. egg cell of a tiger

3. What is the difference between somatic cells and
 gametes?

4. Interphase is which part of the cell cycle?

5. What is made during G2 stage?

6. After G2 stage, what specific stage of the cell cycle
 begins?

7. What is the difference between chromatin and chromosomes?

**STATION 2**: Mitosis

1. Which of the following describes the location of the chromosomes during anaphase?

         A. located in the nucleus of the cell

         B. lined up along the equator of the cell
 C. clustered at each pole of the cell
         D. scattered through the cytoplasm of the cell

1. Which of the following describes an event that happens during prophase of mitosis?

 A. the spindle apparatus breaks down

 B. nuclear membrane reforms
 C. spindle fibers pull on centromeres to separate
 sister chromatids
 D. chromatin condense into chromosomes

3. What joins sister chromatids together?

4. What is the spindle apparatus?

5. How does cytokinesis happen differently in plant and
 animal cells?

6. What three things happen in prophase to get a cell
 ready for mitosis?

7. If a student is observing a cell under a microscope, and notices that the cell has begun to form two nuclei, what stage of mitosis is the student observing?

**STATION 3**: Meiosis

1. What happens during anaphase I of meiosis?

 A.sister chromatids line up at the middle

 B. tetrads line up at the middle of the cell
 C. sister chromatids are pulled apart to opposite poles

 D. tetrads are pulled apart towards opposite poles

1. What correctly describes the process of meiosis?

 A. a diploid cell produces 2 diploid cells

 B. a diploid cell produces 4 haploid cells
 C. a diploid cell produces 4 diploid cells

 D. a haploid cell produces 2 haploid cells

3. What is meiosis?

4. What is the difference between metaphase of mitosis
 and metaphase I of meiosis?

5. What is crossing over?

6. What is the final end product of meiosis? (be specific)

7. How many chromosomes will cells produced in meiosis have if the original cell has this many chromosomes:

 a. 30 b. 52 c. 18 d. 90

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