

## Chapter 5 Cell Biology

1. If a cell is animal cell, it has
  - (A) rigid cell wall
  - (B) no plastid
  - (C) stored carbohydrate as glycogen
  - (D) plasma membrane
2. The macromolecular transactions that take place in apicoplast are
  - (A) DNA replication
  - (B) fatty acid biosynthesis
  - (C) nucleotide biosynthesis
  - (D) transcription
3. The histones present in the core region of nucleosome are
  - (A) core (H<sub>2</sub>A)<sub>2</sub>
  - (B) core (H<sub>2</sub>H)<sub>2</sub>
  - (C) core (H<sub>3</sub>)<sub>2</sub>
  - (D) core (H<sub>4</sub>)<sub>2</sub>
4. Which of the following statements are CORRECT?
  - (A) During metaphase, the 2 copies of chromosomal DNA are held together at the centromere
  - (B) The short arm of chromosomes is referred to as *p* and the long arm is referred to as *q*
  - (C) The terminal structures at the end of the chromatids are referred to as telomeres
  - (D) The terms heterochromatin and euchromatin refer to the active and repressed regions of the chromosome respectively
5. With respect to centromere which of the following are CORRECT?
  - (A) Constricted chromosomal region
  - (B) Holds the sister chromatids together
  - (C) Attaches to spindle fibres
  - (D) Facilitates even distribution
6. Telomere are related to
  - (A) maintenance of DNA
  - (B) chromosome degradation
  - (C) definite cell division
  - (D) DNA replication
7. Which of the following are characteristic of a cancer cell?
  - (A) Increase in cell motility
  - (B) Loss of contact inhibition
  - (C) Decrease in apoptosis
  - (D) Uncontrolled meiosis
8. Mark the CORRECT match of the following terms with the appropriate explanation.
  - (A) Spliceosome – post transcriptional modification
  - (B) Peroxisome – metabolism of long chain fatty acids
  - (C) Lysosome – microtubules

- (D) Centrosome – cell scavengers
9. What are the functions of Golgi apparatus?  
(A) Processing and shorting of glycoprotein  
(B) Lipid metabolism  
(C) Amino acid metabolism  
(D) Carbohydrate metabolism
10. Which of the following relate vesicle fusion?  
(A) Cell adhesion hypothesis  
(B) SNARE hypothesis  
(C) Rab protein  
(D) P-ATPase

**Answer**

1. (B), (C), (D)  
2. (A), (B), (D)  
3. (A), (C), (D)  
4. (A), (B), (C)  
5. (A), (B), (C)  
6. (A), (B), (D)  
7. (A), (B), (C)  
8. (A), (B)  
9. (A), (B), (D)  
10. (B), (C)