

- 1 Cancer is a disease in which cells
 - A grow and divide uncontrollably.
 - B die before they can mature.
 - C stop producing DNA.
 - D die during mitosis.

- 2 Scientists think cancer begins when
 - A a mutation occurs in DNA.
 - B a cell divides too slowly.
 - C DNA replication stops.
 - D cells stop growing.

- 3 What is chemotherapy?
 - A the use of drugs to treat a disease
 - B the use of surgery to treat a disease
 - C the use of radiation to treat a disease
 - D the use of drugs to prevent cancer from occurring

- 4 The order of the bases along a gene determines the order in which
 - A sugars are put together to form a carbohydrate.
 - B phosphates are arranged in DNA.
 - C amino acids are put together to form a protein.
 - D chromosomes are arranged in the nucleus.

- 5 What does messenger RNA do during protein synthesis?
 - A copies the coded message from the DNA and carries it into the cytoplasm
 - B copies the coded message from the DNA and carries it into the nucleus
 - C carries amino acids and adds them to the growing protein
 - D copies the coded message from the protein and carries it into the nucleus

Cells and Heredity Chapter 4 Test

- 6 Where does protein synthesis take place?
- A in the ribosomes in the nucleus of the cell
 - B on the ribosomes in the cytoplasm of the cell
 - C in the chromosomes in the nucleus of the cell
 - D on the chromosomes in the cytoplasm of the cell
- 7 All of the following nitrogen bases in RNA are part of DNA, **except**
- A adenine.
 - B guanine.
 - C cytosine.
 - D uracil.
- 8 How many different types of cancer are there?
- A 10
 - B over 100
 - C over 500
 - D over 1,000
- 9 What is a cancer tumor?
- A a group of cells in the bloodstream
 - B a mass of normal cells
 - C a mass of abnormal cells
 - D a mass of cells that don't divide
- 10 During DNA replication, adenine (A) always pairs with
- A guanine (G).
 - B cytosine (C).
 - C thymine (T).
 - D adenine (A).

Cells and Heredity Chapter 4 Test

- 11 What is a mutation?
- A any change that is harmful to an organism
 - B any change in a gene or chromosome
 - C any change that is helpful to an organism
 - D any change in the phenotype of a cell
- 12 How can a mutation affecting skin be harmful to an animal?
- A It can make the animal more visible to its prey or predators.
 - B It can cause disease in the animal.
 - C It can make the animal resistant to certain diseases.
 - D It can make the animal resistant to drugs.
- 13 During protein synthesis, the protein continues to grow until
- A amino acid is added.
 - B the tRNA is released and picks up another amino acid.
 - C the ribosome reaches a three-base code that signals it to stop.
 - D transfer molecules attach to the ribosome.
- 14 What forms a genetic code?
- A the number of daughter cells in an organism
 - B the order of nitrogen bases along a gene
 - C the order of proteins along a gene
 - D the number of phosphates in a DNA strand