

Practice Multiple Choice questions for DNA

1. The backbone of a nucleic acid strand consists of:

- A) alternating nitrogen bases and phosphate groups linked by amide bonds
- B) alternating sugar and nitrogen bases linked by peptide bonds
- C) alternating sugar and phosphate groups linked by phosphate ester bonds
- D) complimentary bases held together by hydrogen bonds
- E) none of these

2. What is the correct sequence of information transfer?

- A) DNA is transcribed from RNA and then the DNA is translated into a protein
- B) RNA is translated into DNA and then the DNA is transcribed into a protein
- C) RNA is transcribed from DNA and then the RNA is translated into a protein
- D) Proteins are translated into DNA and then RNA is transcribed from

3. Which bases form hydrogen bonds between strands of DNA?

- A) Adenine forms two hydrogen bonds with uracil and cytosine forms three hydrogen bonds with guanine
- B) Adenine forms three hydrogen bonds with uracil and cytosine forms three hydrogen bonds with guanine
- C) Adenine forms three hydrogen bonds with thymine and cytosine forms three hydrogen bonds with guanine
- D) Adenine forms two hydrogen bonds with thymine and cytosine forms three hydrogen bonds with guanine
- E) None of these

4. DNA consists of which bases and sugar?

- A) adenine, cytosine, guanine, thymine, deoxyribose
- B) adenine, cytosine, guanine, uracil, deoxyribose
- C) adenine, cytosine, guanine, thymine, ribose
- D) adenine, cytosine, guanine, uracil, ribose
- E) None of these

5. Which of the following statements is/are correct about RNA

- I. RNA is always double stranded
- II. tRNA is used to carry a specific amino acid to be incorporated into a protein
- III. mRNA is made in the ribosome and transported to the nucleus
- IV. mRNA is made in the nucleus and transported to the ribosome.

- A) I and III    B) II and IV    C) I, II, and III    D) IV only    E) none of these

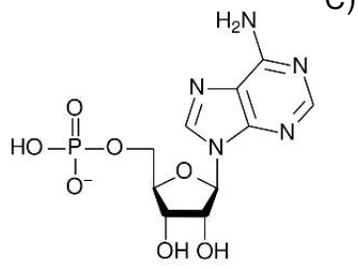
6. Choose the best definition of a buffer solution:

- A) contains a weak acid and its conjugate base and resists pH change
- B) contains a weak acid and its conjugate base and resists pH within a range that is close to the pKa
- C) contains an acid and a base and resists pH change
- D) keeps the pH at 7
- E) neutralizes the solution

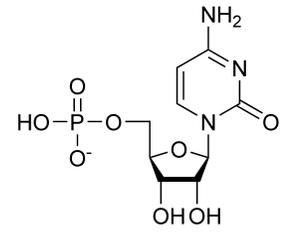
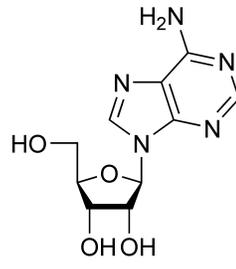
14. Which one of these is Adenosine monophosphate?

- E) none of these

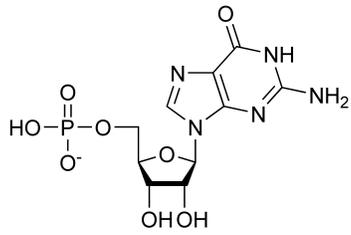
A)



B)



D)



E) none of these