Biology

Topic: Nucliec acids questions

Instructor: Lina khaled

WhatsApp:00962790890160

1. The nitrogenous bases, are inorganic molecules and are so named because they contain carbon and nitrogen.
a) false b) true

2. Which of the following pairs of base sequences could form a short stretch of a normal double helix of DNA?
A) 5'-AGCT-3' with 5'-TCGA-3'
B) 5'-GCGC-3' with 5'-TATA-3'
C) 5'-ATGC-3' with 5'-GCAT-3'
D) All of these pairs are correct.

3. One of the following nitrogen bases consists of two rings:
A)Adenine B)Cystine C) Thymine D)uracil

4. Backbone of polynucleotide is composed of :
A. Sugar & phosphate B. Sugar & nitrogen base
C. Phosphate & nitrogen base D. None of the above

5. What is in the 5' end of polynucleotide?
A)Nitrogen base B) Phosphate group C) Hydroxyl group
D) Nitrogen base E) Pentose sugar

6. Nucleotides are connected by bond
A. Peptide B. Phosphodiester C. Glycosidic D. Diester

7. Which of the following are purines found in the nucleic acid DNA?
a. uracil and guanine b. thymine and cytosine c. guanine and cytosine
d. thymine and adenine e. adenine and guanine

8. In the DNA double helix, the two DNA chains are held together by
a. covalent bonds between the pair of bases
b. none of the choices
c. hydrogen bonds between the pair of bases
d. ionic bonds between the pair of bases

9. One of the primary functions of RNA molecules is to
A) transmit genetic information to offspring.
B) function in the synthesis of proteins.
C) make a copy of itself, thus ensuring genetic continuity.
D) act as a pattern or blueprint to form DNA.
E) form the genes of higher organisms

10. Which of the following are nitrogenous bases of the pyrimidine type?
A) guanine and adenine B) cytosine and uracil
C) thymine and guanine D) ribose and deoxyribose E) adenine and thymine

11. The difference between the sugar in DNA and the sugar in RNA is that the sugar in DNA
A) is a six-carbon sugar and the sugar in RNA is a five-carbon sugar.
B) can form a double-stranded molecule.
C) is an aldehyde sugar and the sugar in RNA is a keto sugar.
D) is in the α configuration and the sugar in RNA is in the β configuration.
E) contains one less oxygen atom.

12. If something decrease the concentration of hydrogen ions it is:
a) basic b) acidic

13. RNA dictates the protein's structure in a process called transcription

a) true b) false

14. Each codon codes for a three amino acids
    a) true b) false

15. DNA is in the nucleus of eukaryotes and in the organelles, chloroplasts, and mitochondria.
    a) true b) false

1. A
2. C
3. A
4. A
5. B
6. B
7. E
8. C
9. B
10. B
11. E
12. A
13. B
14. B
15. A