Unit 4: Assignment 1: Structure of DNA

Question 1 (1 point)
1. a five-carbon sugar

a DNA
b deoxyribose
c Nitrogen base
d nucleotides
e double helix

Question 2 (1 point)

2. type of bond that holds the nitrogenous bases together

a Covalent
b Hydrogen
c Ionic

Question 3 (1 point)

3. one of three parts of a nucleotide

made of one or two rings of carbon
and nitrogen atoms

a nitrogen base
b deoxyribose
c adenine
d double helix

Question 4 (1 point)
4. subunits that make up DNA

a deoxyribose
b nitrogen base
c hydrogen bonds
d nucleotide

Question 5 (1 point)

5. one of two pyrimidines used as a

nitrogen base in nucleotides

a None of the above
b thymine
c guanine
d adenine

Question 6 (1 point)

6. one of two purines used as a

nitrogen base in nucleotides

a cytosine

b thymine

c adenine

Question 7 (1 point)

7. abbreviation for deoxyribonucleic acid

a IDK

b DNA

c RNA

Question 8 (1 point)

8. two strands of nucleotides twisted around each other

a single helix

b double helix

c triple helix

Question 9 (1 point)

How many types of nucleotides are present in DNA?

a 1

b 2

c 3

d 4

Question 10 (1 point)

ALL nucleotides have two parts that are the same: the deoxyribose sugar and a _____

a phosphate group

b ribose sugar

c pyrimidine

d purine

Question 11 (1 point)

A nucleotide is different than a nitrogenous base. A nucleotide consists of a phosphate group, a sugar deoxyribose, and a nitrogenous base. Which of the following is an example of a nitrogenous base?

a Adenine

b ribose sugar

c double helix

d base pair

Question 12 (1 point)
The name of the scientist which revealed that the structure of DNA is uniform in width. She took a picture of the DNA form.

a Rosalind Franklin

b Martha Chase

c Rachel Carson

d Marley Fowatt

Question 13 (1 point)
The names of the Scientists which discovered the structure of DNA using Rosalind Franklins information.

a Oswald Avery and Fredrick Griffeth

b James Watson and Francis Crick

c Irwin Chargoff and Linus Pauling

d Alfred Hershey and Martha Chase

Question 14 (1 point)
The T nucleotide pairs with the _____ nucleotide

a other T's

b A

c G

d C

Question 15 (1 point)
The base pairing rules of DNA relate to Chargaff's rules. The base pairing rules state that A only pairs with T and C only pairs with G. Therefore, the amount of A will be _____ the amount of T, and the amount of C will be _____ the amount of G.

a less than

b more than

c equal to

Question 16 (1 point)
The main difference between the four nucleotides that make up DNA is that they have different

a uracil

b bases

c sugars

d bonds

Question 17 (1 point)
The four types of nucleotides that make up DNA are named for their

a nitrogen-containing bases.

b ring-shaped sugars.

c hydrogen bonds.

d phosphate groups.

Question 18 (1 point)
After examining the DNA of different organisms, which of the following did Erwin Chargaff conclude about the four bases?

a A = T and C = G.

b A = C and G = T.

c A = C and G = T.

d A + T = C + G.

Question 19 (1 point)

Which of the following DNA sequences is complementary to the base sequence ACCGTAT?

a CAATGCG

b TGGCATA

c GTTACGC

d UCCGTAT

Question 20 (1 point)

Combining the work of other scientists with their own research, Watson and Crick discovered that two strands of DNA join together to form a(n)

a double helix.

b covalent bond.

c nucleotide

d X in a circle.

Question 21 (1 point)

What holds base pairs together?

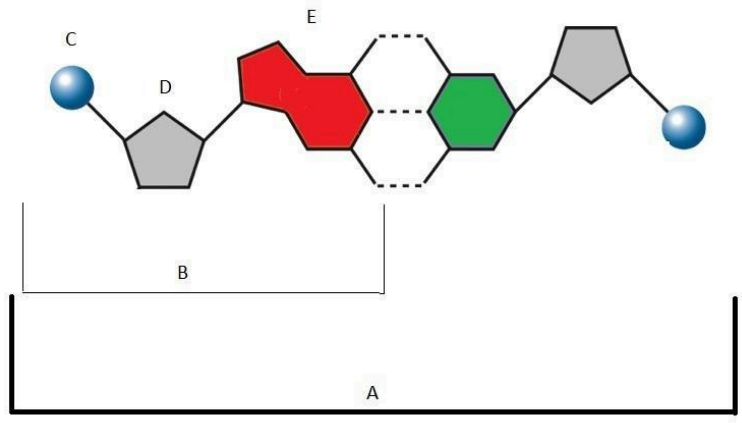
a pairs of double-ringed nucleotides.

b nitrogen-carbon bonds

c hydrogen bonds.

d sugar-phosphate backbones.

Question 22 (1 point)



Which letter represents a base pair?

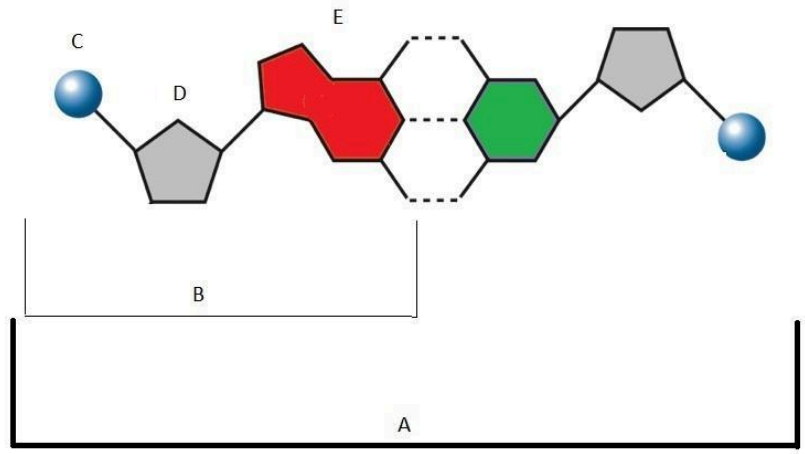
a C

b D

c A

d B

Question 23 (1 point)



Which letter represents a nucleotide

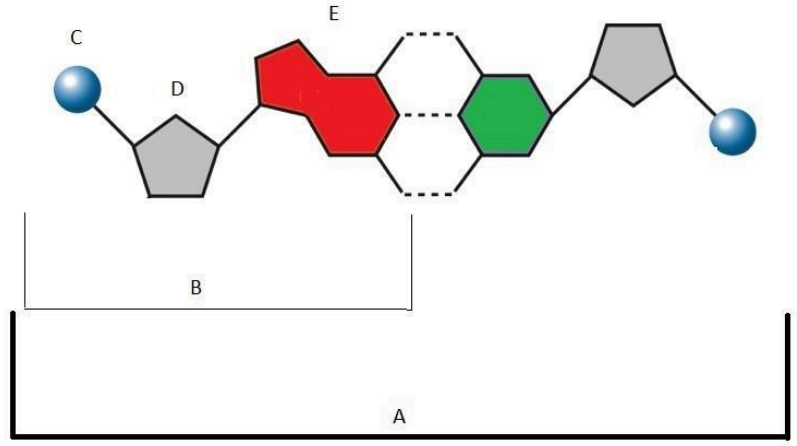
a D

b B

c C

d A

Question 24 (1 point)



Which letter represents a nitrogenous base?

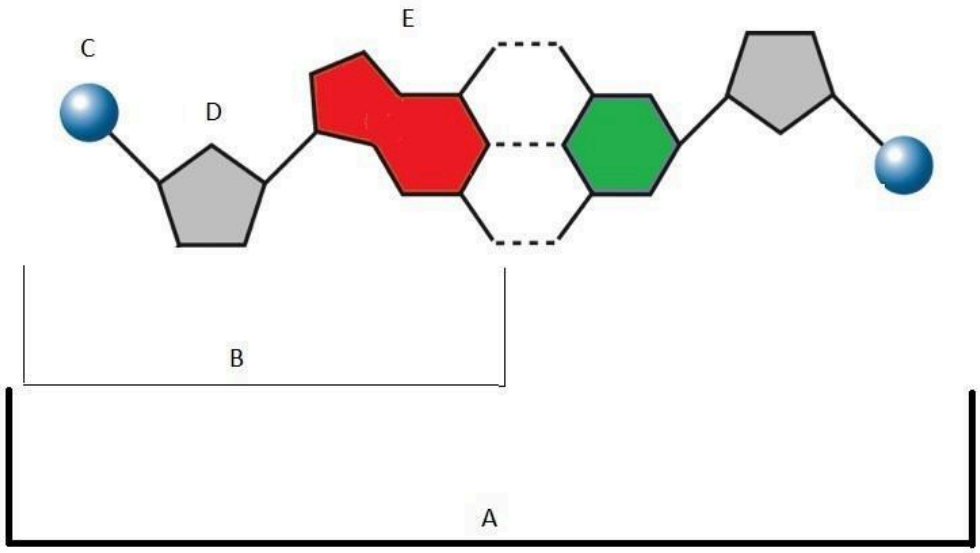
a B

b A

c E

d D

Question 25 (1 point)



Which letter represents a deoxyribose sugar?

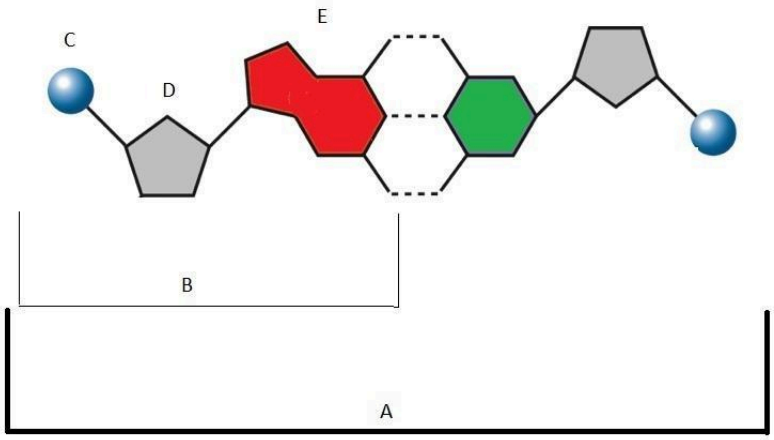
a A

b B

c C

d D

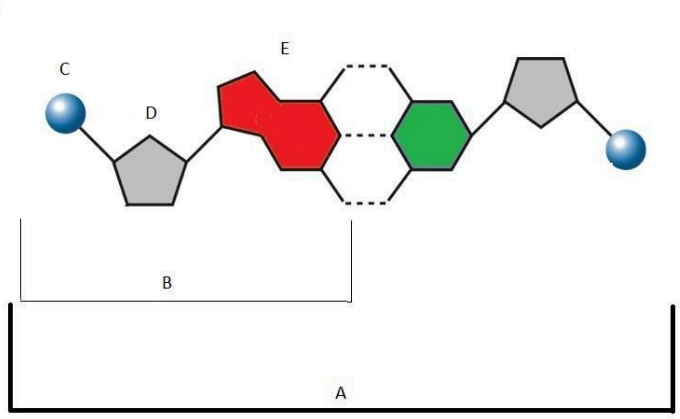
Question 26 (1 point)



Which letter represents a phosphate group?

a B
b D
c C
d A

Question 27 (1 point)



What nitrogenous base is represented by E on this diagram?

a Guanine
b Thymine
c Cytosine
d Adenine

Question 28 (1 point)
There are this many bonds between Adenine and Thymine?

a 2
b 3

Question 29 (1 point)
There are this many hydrogen bonds between Cytosine and Guanine?

a 2
b 3

Question 30 (1 point)
The double ringed nitrogenous bases?

a Pyrimidines
b Purines

Question 31 (1 point)
The single ringed nitrogenous bases?

a Pyrimidines
b Purines