Q1) Which one of these statements about nitrogenous bases is TRUE?

A. Adenine and thymine are purines.

B.cytosine and guanine are pyrimidines.

 C. guanine is a purine and Adenine is a pyrimidine.

D. Adenine is a purine and uracil is a pyrimidine

Q2) The sequence GCAGGCCTAGT exist in human genome ,One of the following is TRUE:

A. a. Its part of a minor groove

B. The opposite strand is CGTCCGGATCA

C. That last T in the sequence in a monophosphate form

 D. Its made of telomeres (the ends of chromosome)

E. The first G in the sequence represent the free pentose end

Q3) The glycosidic bond that exists in nucleosides is between

A. 3' carbon of sugar and N9 of adenine

B. 1' carbon of sugar and N1 of guanine

C. 5' carbon of sugar and N1 of cytosine

D. 1' carbon of sugar and N9 of guanine

E. 5' carbon of sugar and N1 of thymine

Q4) RNA molecules contain an additional oxygen atom compared to DNA molecules located on which carbon atom of the pentose sugar:

A.1

B.2

C.3

D.4

E.5

Q5) A template of DNA is 5-ATCGGCTACAATGTA-3; what is the complimentary DNA sequence?

A. 5'UACAUUGUAGCCGAU3'

B. 5'TAGCCGATGTTACAT3'

C. 5'TACATTGTAGCCGAT3'

D. 5'TACAAAGTAGCCGAT3'

E. 5'ATCGGCTACAATGTA3'

Q6) One strand of a DNA segment contains 33 A, 25 G, 12 T, and 41 C. how many each base is found in the original double- stranded DNA molecule?

A. A-46, G-50, C-50, T-46

B. A 66, G 53, C-53, 7-66.

C. A-45, G-66, C-66 T-45

D. A-66, G-24, C-24 A 66

E. A-45, G-50, C50, T-45

Q7) The lowest level of DNA packaging:

A. 30 nm fiber

B. naked DNA molecule

C. chromosomes

D. nucleosomes

 E. more than one of the above

Q8) Complementarity is a feature of DNA that indicates the following:

A. Bases are almost perpendicular to the side chains

B. DNA is anti-parallel

C. A minor groove is opposite to a major groove

D. DNA is helical

E. Number of (A+G) = number of (T+C)

Q9) Each nucleotide is attached to the other nucleotide by

A. ionic bonds

B. phosphodiester bonds

C. hydrogen bonds

D. glycosidic linkages

E. disulfide bridges

Q10) major and minor grooves in DNA structures are formed because of

 A. the anti-parallel nature of the tow strands of DNA

B. DNA packing by histones

C. the pattern of hydrogen bonding between nucleotides

D. DNA is not perfectly helical

E. the bending capability of DNA

Q11) Nitrogenous bases are attached to each other by:

 A. hydrogen bonds

B. ionic bonds

C. glycosidic linkages

D.phosphodiester bonds

E. disulfide bridges

Q12)What is the maximum number of phosphate groups that can be attached to pentose sugars in nucleotides?

 A. 1

B. 2

C. 3

D.4

E. there is no specific max number.

Q13) Nitrogenous bases are attached to sugar molecules by:

A. hydrogen bonds

B. ionic bonds

C. glycosidic linkages

D. disulfide bridges

E. phosphodiester bonds

Q14) what is the effect of cation like magnesium ions on DNA?

A. they facilitate DNA denaturation

B. they neutralize the negative charges of phosphate groups

C. they break phosphodiester bonds between nucleotides

D. they strengthen the binding of regulatory proteins to DNA

E. they increase the hydrogen bonds between complementary bases

Q15) the purpose of histone 1 (H1) is thought to be:

A. stabilization of the histone core particle

B. protection of the linker DNA from degradation

C. marking regulatory regions of DNA

D. activation of transcription

E. formation of heterochromatin

Q16) Histone core complex contain all of the following EXCEPT:

A.H1

B. H2A

C. H2B

D. H3

E. H4

Q17) A chromatosome contains all of the following EXCEPT:

A. A DNA free of histones

B. A DNA complexed with histones

C. H2A and H2B

D. A histone octamer

E. Histone H1

Q18) A nucleosome contains all of the following EXCEPT:

A. A DNA free of histones

B. A DNA complexed with histones

C. H2A and H2B

D. A histone octamer

E. Histone H1

Question	Answer
1	D
2	C
3	D
4	B
5	C
6	C
7	D
8	E
9	B
10	D
11	A
12	C
13	C
14	B
15	E
16	A
17	A
18	E

'don't worry it'll pass , just keep going ☺ .