



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



WORK SHEET – 32

Class: XII

Sub: Biological Science

Date: 25.07.2020

Topic: Ch 6: Molecular Basis of Inheritance (Part I) – Structure of DNA

F.M. : 15

Choose the correct option:

(1x15=15)

1. Bacterial chromosome is associated with :-
a) Histone b) RNA c) Polyamines d) Both (b) and (c)
2. Histone proteins are _____ type of proteins.
a) Acidic b) basic c) Neutral d) Sulphur Containing
3. The following is not a pyrimidine :-
a) Cytosine b) Guanine c) Thymine d) Uracil
4. Purines have a _____ membered ring structure.
a) 7 b) 9 c) 6 d) 5
5. In a nucleotide the pentose sugar and base are joined by _____ bond.
a) N-glycosidic b) Peptide c) Diester d) None of these
6. According to Chargaff's rule the following formula is correct :-
a) $A+G = T+C$ b) $A/G = T/C$ c) $A+C+G=T$ d) All of these
7. In a polynucleotide chain, the deoxyribose molecules of two adjacent nucleotides linked by :-
a) Glycosidic bond b) Hydrogen bond c) Phosphodiester bond d) Peptide bond
8. The diameter of DNA Helix as per the Watson and Crick Model is :-
a) 2nm b) 20 nm c) 200 nm d) None of these
9. The number of hydrogen bonds between guanine and cytosine are :-
a) One b) Three c) Two d) Four
10. In a complete spiral turn of B-type DNA there are _____ nucleotides.
a) 12 b) 11 c) 10 d) 9
11. In case of RNA adenine always pairs with _____.
a) Uracil b) Guanine c) Thymine d) Cytosine
12. Complementary base pairing means :-
a) A pairs with T and vice versa b) G pairs with T and vice versa c) A pair with T and G pairs with C and vice versa d) C pairs with U
13. The two polynucleotide chains run parallel to each other in opposite direction and thus said to be :-
a) Parallel b) antiparallel c) Polar d) All of these

14. Watson and Crick double helix model was based on :-
a) Chargaff's rule b) X-ray diffraction c) Phosphorescence d) Both (a) and (b)
15. A trinucleotide consists of _____ nucleotide.
a) 3 b) 2 c) 4 d) 5

Shaista Ahmed