



**ST. LAWRENCE HIGH SCHOOL**  
**A JESUIT CHRISTIAN MINORITY INSTITUTION**



**SOLUTION – 5**

**Class: X**

**Sub: Life Science**

**Date: 28.06.2021**

**Topic: Ch 2 Continuity of Life: Chemical components of chromosomes**

**F.M. : 15**

**Choose the correct option:**

**(1x15=15)**

1. Chromatin is composed of DNA, RNA and \_\_\_\_\_.  
a) **protein** b) carbohydrate c) fat d) none of these
2. Purified chromatin isolated from interphase nuclei consists of about \_\_\_\_% RNA.  
a) 30-40 b) 50-65 c) 10-30 d) **0.5-10**
3. DNA is made up of molecules called \_\_\_\_\_.  
a) nucleosides b) **nucleotides** c) nitrogen bases d) sugar groups
4. Example of a purine is \_\_\_\_\_.  
a) Uracil (U) b) Thymine (T) c) **Guanine (G)** d) Cytosine (C)
5. Each base pair is formed from two complementary nucleotides bound together by \_\_\_\_\_ bonds.  
a) nitrogen b) oxygen c) **hydrogen** d) none of these
6. The deoxyribose sugar in DNA is a \_\_\_\_\_ sugar.  
a) **pentose** b) hexose c) septose d) none of these
7. The DNA gets its polarity from \_\_\_\_\_ of the sugar.  
a) location b) structure c) bonding d) **numbering system**
8. The linkages between nucleotides occur between the \_\_\_\_\_ positions on the sugar group.  
a) 2' and 3' b) **5' and 3'** c) 1' and 4' d) 1' and 5'
9. Each nucleotide contains a \_\_\_\_\_ group, a sugar group and a nitrogen base.  
a) **phosphate** b) carbonate c) sulphate d) nitrate
10. Histones constitute about \_\_\_\_% of the total chromosomal protein.  
a) 55 b) 60 c) 78 d) **80**
11. Euchromatin contains \_\_\_\_\_ genes and is considered as the active part.  
a) **structural** b) repetitive c) both d) neither
12. \_\_\_\_\_ regions of chromosome invariably contain heterochromatin.  
a) Telomeric b) Chromatid c) **Centromeric** d) Satellite
13. Nucleotides are arranged in \_\_\_\_ long strands that form a double helix spiral.  
a) **two** b) three c) four d) five
14. The functions of heterochromatin are -  
a) helps in gene regulation b) protection of chromosome integrity c) **both** d) neither

15. A nitrogen base pair in DNA is -

- a) Adenine (A) with Guanine (G) b) Cytosine (C) with Thymine (T) c) G with C **d) A with T**

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