

**DELHI PUBLIC SCHOOL  
BOKARO STEEL CITY**

ASSIGNMENT FOR THE SESSION 2009-2010

Class : XI

**Subject : Biotech.**

Assign. No. 3

1. Give an account of Fehling, Benedict & Seliwanoff's test.
2. Draw molecular structure of sucrose, serine, glycine, Deoxyribonucleotide, ribonucleotide and ATP.
3. Explain Z-scheme involving transfer of electron between PS I & PS II during photosynthesis.
4. Compare C<sub>3</sub> & C<sub>4</sub> cycle on the basis of different parameter.
5. Write short note on :-
  - a) Nitrogenase
  - b) Supramolecular assembly
  - c) Amphibolic nature of TCA cycle
  - d) Ramachandran plot
6. Which are the key players (enzyme) involved in replication of DNA in both prokaryotes & Eukaryotes?
7. Explain the mechanism of processing of heterogenous RNA
8. Name all initiation & termination codon. What are the six prominent features of genetic code?
9. Diagrammatically represent the various steps involved in Translation of protein.
10. How does Lac operon differ from Tryptophan operon?
11. Why there is differential expression of gene in different cells during development?
12. "Study of Immunogenetics has significant practical application in the field of Medicine." Justify.
13. Differentiate between :-
  - a) Gene & pseudogene
  - b) Sense & Antisense strand
  - c) Bacterial & Eukaryotic transcription
14. What are the basic steps involved in chromosome painting?
15. What do you mean by pedigree analysis which are the conception being used in construction of pedigree chart?

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