Biomolecules

Std. XII **Time: 30 mts**
CHEMISTRY **Max.Marks: 25**

1. Sucrose is not
   a A disaccharide
   b A non reducing sugar
   c Hydrolysed to only glucose
   d Hydrolysed to glucose and fructose

2. Fructose has no reaction with
   a HI and red P
   b Con. HNO_3
   c $(CH_3CO)_2O$
   d Br_2/water

3. _____ is present in considerable amount in the white matter of brain and nervous tissues
   a Galactolipid
   b Lecithin
   c Cephalin
   d Wax

4. Which among the following is a disaccharide?
   a Sucrose
   b Glucose
   c Starch
   d Cellulose

5. Glucose is an example of
   a Aldopentose
   b Aldohexose
   c Ketopentose
   d Ketohexose

6. When glucose is treated with bromine water, the product formed in
   a gluconic acid
   b saccharic acid
   c n-hexane
   d penta bromo hexanal

7. The structure of proteins is affected by
   a Strong acids
   b Strong bases
   c Enzymes
   d All the above

8. In the basic medium an amino acid $H_2N - CH(R) - COOH$ will exist as
   a $H_2N - CH(R) - COOH$
   b $H_2N - CH(R) - COO^-$
   c $H_3\overset{+}{N} - CH(R) - COOH$
   d $H_3\overset{+}{N} - CH(R) - COO^-$

9. A dipeptide will not contain
   a Two peptide units
   b Portions of two amino acids
   c An amino group
   d Salt like structure

10. When starch is heated between 200 – 250°C, the product formed is
    a Glucose
    b Maltose
    c Dextrin
    d Cellulose

11. Among the following reagents, which cannot be used for the conversion of glucose to gluconic acid?
    a Tollen's reagent
    b Fehling's reagent
    c Con. HNO_3
    d Br_2/H_2O

12. Inversion of sucrose involves
    a Oxidation
    b Reduction
    c Polymerisation
    d Hydrolysis

13. Carbohydrates are
    a Polhydroxy aldehydes
    b Polyhydroxy ketones
    c Polyhydroxy acids
    d Both a and b

14. When fructose is treated with acetic anhydride in presence of pyridine, it forms
    a Tetra acetate
    b Penta acetate
    d Mono acetate
    d Hexa acetate

15. The protective agent on the surface of plants is
    a Fats
    b Wax
    c Oil
    d Phospholipid

16. The bond formed between two amino acids by the elimination of water molecule is called a _____ linkage.
    a Glycosidic
    b Imide
    c Peptide
    d Dipeptide

17. A reducing sugar among the following is
    a Sucrose
    b Cellulose
    c Starch
    d Glucose

18. Among the following, the amino acid that does not have chiral carbon
    a Alanine
    b Glycine
    c Proline
    d Thyracine

19. The amino acid that can be synthesized from other compounds by the tissues of the body
    a Essential amino acid
    b Non-essential amino acid
    c Natural amino acid
    d Synthetic amino acid

20. The compound used to form cell wall in plants is
    a Starch
    b Cellulose
    c Glucose
    d Sucrose

21. Invert sugar will have equal molecules of
    a *D* (+)-glucose and *D* (–)-glucose
    b *D* (+)-glucose an *D* (–)-fructose
    c *D* (+)-fructose and *D* (–)-fructose
    d *D* (+)-fructose and *D* (–)-glucose

22. Which among the following is a non-sugar?
    a Glucose
    b Fructose
    c Sucrose
    d Starch

23. Caramel is obtained by heating _____ at 200°C.
    a Glucose
    b Fructose
    c Starch
    d Sucrose

24. Raffinose on hydrolysis gives _____ molecules of monosaccharide
    a 1
    b 2
    c 3
    d 4

25. _____ have been implicated in the process of blood coagulation
    a Lecithin
    b Cephaline
    c Wax
    d Fat