Q / Define the following:

Dialysis, Thixotropic Gel, Stachyose, Modified Starch, Polyglactouronase, Dextrose Equivalent, Volatile

fatty acids, , Tyrosine , Lysozyme,protein denaturation.

Q/what are the differences between:-

Inuline and Cellulose

Amyloglucosidase, β –Amylase and α-Amylase -

Pectin and Pectic Acid

Fats and Oils

Q / Write chemical structure and significance of the following compounds:

Lecithin , Triolein , Octadecadienoic acid, Eicosanoic ,Stearic acid ,Vitamin A, Sphingosine,Tyrosine , Tochoferol,

Monoglyceride,EPA, Salting out, Tofu, Collagen, Prolamins. Nigerose, Moroctic , Un-conjugated fatty acids ,

Gliadin , Asparaginase , BHT, Tributyrin

Q/A/Explain the role of pectin in jelly production.

B/How jelly special for diabetic people is produce.

Q / Write chemical structure for each of the following amino acids and explain its role in physical and chemical

properties of foods:

1-Proline 2-Serine 3-Alanine 4-Glutamic acid

Q/write the chemical equation of initiation step of food lipids oxidative rancidity.

Q/write the chemical equation of food lipids hydolysis rancidity.

Q/Name the following:-

1- Two essential amino acids found in food proteins.

2- Two non-essential amino acids founded in food proteins.

3- Phospho-protein founded in food.

4- Enzyme used for food processing.

5-Enzyme responsible for food deterioration

6- Main sugar found in fruits.

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7- Can sugar.

8-Homotriglyceride.

9-Heterotriglyceride.

10-Natural Antioxidant found in food.

11-Artifitial Antioxidant found in food.

12-Pigment found in meat

Q4/ Answer with (Yes) or (No) and correct the wrong:-

1- all enzymes are proteins.

2-Maltose in non-reducing monosaccharide’s.

3-glucose is sweeter than fructose.

4- Denaturation of this protein leads to converting of the sulfahydral bonds to disulfide groups which are responsible

for the cooked flavor in food.

5-melting point of oleic acid is higher than stearic acid.

6-tartaric acid is the main acid found in citrus.

Q/Conjugate suitable word in list A with list B.

A- BHA, Salting out ,,Ultracentrifugation, Phospholipid, Tyrosine, Rancidity , saturated fatty acid , Svedberg,

B-Lipase, Antioxidant, Emulsifier, Ammonium Sulphate, Aromatic Agent,Caprylic acid, Bioactive protein.

Q/Discuss the following:-

1-Melting point of stearic acid is higher than melting point of lenolenic acid.

2-Proline called imino-acid.

3-Cellulose is not digested in human digestive tract.

4-Fat are solid at room temperatures.

5-Oils are liquid at room temperatures.

6- Electrical behavior of hydrophilic suspended colloids.

7-Mutarotation of carbohydrates.

8- The existence of various sugars with differences viscosity in aqueous solutions.

Q/Fill the following blanks:-

1- ------ is the major carbohydrate fraction in cereal, It is made up of ----- building block.

2- Measuring the inactivation of peroxidase is a method of testing the---------- process efficiency

3- Heating food to above 100oC causes sugar to combine irreversibly with ------ by reaction called------.

4- The melting point of food lipids increased with -------------and decreased with-------------- of fatty acids

5----- gives food a yellowish color.

6-The red color of tomato refer to----------.

Q\ List \1- The reactions that occur during caramelization process. 2- Lipid quality analyses.

B- What is the importance of three of the following enzymes in food industry?

Microbial transglutaminase , Glucose oxidase , Lipoxygenase , Invertase

Q\A-Write the chemical structure of the following fatty acid then rearrange them from lower to higher melting point & classify them according to omega system.

Oleic , Eladic , Linoleic ,Linolinic .

Q\ Write the chemical the chemical equation of apple browning reaction by PPO enzyme

Q\ What are the differences between the LM & HM pectin.