

**ASSIGNMENT SET - I**  
**Department of Nutrition**

**Mugberia Gangadhar Mahavidyalaya**



**Subject- Food Technology, Nutrition and Management**  
**Semester-I**

**Paper Code: FTNM13**

**[Advances in Food Bio-Chemistry and Nutrition]**

**Answer all the questions**

**Unit-1**

1. What is Hexagonal Water? Write the Structure of water.
2. What is Bound water?
3. What is Water Activity?

**Unit-2**

1. Which type of amino acids most affected by UV radiation?  
Why glycine is an optically inactive amino acid?
2. What is essential amino acid? Give one example for essential and other for non essential amino acid?
3. Define the Tertiary Structure of Protein?
4. Define the Primary Structure of Protein?

**Unit -3**

1. Define the Physical Properties of Lipid?
2. What Is the Polymorphism of Lipid?
3. What is Rancidity? Define the different types of Rancidity?
4. Difference between Hydrolytic Rancidity & Oxidative Rancidity?
5. What is Oxidative Rancidity, Define the preventive measures?

**Unit-4**

1. What is Gelatinization and Retrogradation?
2. What is Modified Starch?
3. What is Resistant Starch?
4. Difference between Amylose and Amylopectin?

**Unit -5**

1. Enlisted the name of Water soluble vitamins with their specific scientific name, source, Requirement, Function, & Deficiency
2. Food Application of Fat soluble & Water soluble vitamins?
3. The changes of Vitamins in Food processing & Storage?

**Unit- 6**

1. Application of macro minerals on food?
2. What are essential and non essential trace elements? Give some examples?
3. Food Application of trace elements?

**Unit-7**

1. Write the effect of food processing on minerals.
2. Role of minerals on nutrition?
3. What will if our body has mineral deficiency?
4. What do you mean by bioavailability of food?

**Unit-8**

1. What do you mean by convection method?(2)
2. What is conduction method?(2)
3. Describe the cooking method?(5)
4. What is grilling?(2)
5. What is stewing?(2)