

Mugberia Gangadhar Mahavidyalaya
Paper- Advances in Food Bio-Chemistry and Nutrition
Paper code- FTNM 13 (Question Bank)

Unit 1:

1. What is Hexagonal Water? Structure of water?(5)
2. What is Bound water?(2)
3. What is Water Activity?(2)
4. What role hydrogen bonding play to create the structure and property of Water?(5)

Unit 2 :

1. Describe the Process of Protein Denaturation ? What factors can lead to the Denaturation of Protein? (2+3)
2. Which type of amino acids most affected by UV radiation? Why glycine is an optically inactive amino acid? (1+2)
3. What is essential amino acid? Give one example for essential and other for non essential amino acid?(2+1)
4. Define the Tertiary Structure of Protein? (3)
5. Define the Primary Structure of Protein? (3)
6. Compare and contrast Alpha – helix, and β sheet in terms of their structure and stability ? (3)
7. Nutritional Importance of Protein?(3)
8. Write a note on the enzyme that are involved in protein digestion? (3)
9. Which Protein Plays an important role in maintaining the osmotic Pressure? (1)
10. What is PER?(2)

11. What is biological value of protein with some examples? (3)
12. What is NPU?(2)
13. What do you mean by Apo Enzyme? (2)
14. What is the difference between Immino Acid & Amino Acid? (3)
15. What is the difference between coenzyme & Apo – Enzyme ? (3)
16. Who discover 1st enzyme? Which organ Produce peptidase Enzyme? (2)
17. What is Exo Peptidase ? What is Epimer? (2+2)
18. What is immobilized Enzyme?(2)
19. Define Lock & Key Model?(3)
20. What is Enzymatic & Non Enzymatic reaction? (3)
21. Role of enzyme in Food Processing? (4)

Unit 3:

1. Classification of Lipids with Suitable examples? (3)
2. Define the Chemical Properties of Lipid?(3)
3. Define the Physical Properties of Lipid? (3)
4. What Is the Polymorphism of Lipid? (2)
5. What is Rancidity? Define the different types of Rancidity?(1+2)
6. Difference between Hydrolytic Rancidity & Oxidative Rancidity?(3)
7. What is Oxidative Rancidity, Define the preventive measures? (3)

8. Give some examples of natural & synthetic antioxidant?(2)
9. What is free Radicals?(2)
10. Properties of Oil & Fat?(2)
11. Classification of fat & Oil?(3)
12. Write any two disadvantage of trans fatty acid?(2)
13. What is Fat Bloom? (2)
14. What is Reversion?(2)
15. What is the essential fatty acids? Role of essential fatty acids in our body? (3)
16. Give some examples of saturated fatty acids with trivial name?(2)
17. Give some examples of unsaturated fatty acids with trivial name?(2)

Unit 4 :

1. Classification of Carbohydrates with examples? (3)
2. Write a short note on Polysaccharide? (5)
3. What is Gelatinization and Retrogradation? (2+2)
4. What is Modified Starch?(2)
5. What is Resistant Starch?(2)
6. Difference between Amylose and Amylopectin?(3)
7. What is Reducing Sugar?(2)
8. Write a short note on caramelization and millard reaction?
(5+5)

Unit 5:

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

Unit 6:

1. What do u mean by macro minerals & Trace elements? Give some example of them?(2+1)
2. Application of macro minerals on food?(2)
3. What is essential and non essential trace elements? Give some examples?(1+1+1)
4. Food Application of trace elements?(3)
5. What are excellent source of macro & micro minerals?(3)

Unit 7:

1. Effect of food processing on minerals? (3)
2. Role of minerals on nutrition?(5)
3. What will if our body have mineral deficiency?(5)
4. What do you mean by bioavailability of food?(2)

Unit 8:

1. Effect of cooking in food?(3)
2. What do you mean by convection method?(2)
3. What is conduction method?(2)

4. Describe the cooking method?(5)
5. What is grilling?(2)
6. What is stewing?(2)
7. What is combination method of cooking?(2)
8. Benefits of microwave cooking?(3)
9. What is balance diet?(2)

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