

ASSIGNMENT SET - I
Department of Nutrition

Mugberia Gangadhar Mahavidyalaya



Subject- B.Voc. in Food Processing

Semester-I

Paper Code: BVFPS105T

[FOOD CHEMISTRY]

Answer all the questions

Unit-1

1. Define free bound water.
2. What is entrapped water?
3. What is water activity?
4. Distinguish between the reasons of temporary hardness and permanent hardness.
5. Write notes on hard water and soft water.
6. Explain physical properties of water.
7. Write notes on drinking water.
8. Write an essay on treatment of domestic water supply.

Unit-2

1. Define carbohydrates.
2. Write the composition of carbohydrates.

3. Discuss shortly the source and function of carbohydrates.

Unit -3

1. What do you mean proteins with a suitable example?
2. What is the source and function of protein?
3. Briefly discuss the classification of protein.
4. Write the difference between essential and non-essential amino acids.
5. Define amino acid.
6. Discuss briefly changes in protein during processing.

Unit-4

1. Write a short note on fat hydrolysis. 4
2. Define hydrogenation of fat. 4
3. What do you mean emulsion and emulsifier? 3

Unit -5

1. Name the compound that is structurally similar to retinol and can be easily converted to vitamin A.
2. What are the two rings present in the structure of thiamine?
3. What is an important property of vitamins B₁ and B₂ which is crucial from the point of view of cooking?
4. What is the chemical nature of niacin? Which disease is caused by its deficiency?
5. Name two functional groups (present in the structure) of vitamin B₅.
6. How many types of tocopherols are commonly found in nature? Out of these which one is most potent as a vitamin?
7. Name the commonest form of vitamin D? How does its structure differ from other members of the group?

8. Compare and contrast any two physico-chemical properties of vitamin K₁ and K₂.
9. Write down the structure of nicotinamide and L-ascorbic acid.
10. Give important physico-chemical properties of Vitamin C.
11. Which member of the vitamin K group is synthesized by bacteria? What is its chemical name? How is it structurally different from rest of the members?

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