



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Technology) 2022 Admission
IV Semester Final Examination – July 2024

Pafe.2219

Food Biochemistry and Nutrition (2+1)

Marks: 50
Time: 2 hours

I Fill in the blanks

(10x1=10)

1. There areamino acids appearing in the genetic code of all life.
2. Vitamin B9 is commonly known as
3. ATP binds to cation.
4. The process of preserving food in the bottle is known as
5. Triglycerides are hydrolyzed by

State True or False

6. Sucrose is a reducing sugar.
7. Uracil is present in DNA.
8. Enzymes are highly specific to substrates.
9. Urea cycle occurs in liver.
10. Lectins are a type of food toxin.

II Write short notes on ANY FIVE of the following

(5x2=10)

1. What are polysaccharides. Give two examples.
2. Write the chemical names of the vitamins **B1, B2 and B6 and B12**
3. Calculate the number of ATPs produced from glycolysis with reaction scheme.
4. How many Kcals of energy does 1 g of carbohydrate, protein and fat yield?
5. In what conditions does dehydration occur? which solution should be given for correction of this condition?
6. What is balanced diet?
7. What is freezing of food? Give examples.

III Answer ANY FIVE of the following

(5x4=20)

1. Explain globular and fibrous proteins with examples.
2. What are saturated and unsaturated fatty acids? Give examples.
3. Explain enzyme classification with examples.
4. Explain transamination and decarboxylation of amino acids.
5. Write a note on the functional properties of water.
6. Write a brief note on basic food groups with the dietary sources under each group.
7. Explain the changes in food occurring during drying.

IV Write an essay on ANY ONE of the following

(1x10=10)

1. Explain enzyme kinetics and discuss Michaelis-Menten equation. .
2. Explain Krebs cycle.
