

Undergraduate 1st Semester (Honours) Examination, 2020-21

Subject: NUTRITION

Course ID: 12312

Course Code: SH/NUT/102/C-2

Course Title: Food Science and Basic Nutrition- 1

Full Marks: 25

Time: 1hr. 15mins.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words

as far as practicable.

Answer all the questions

UNIT I

1. Answer any five of the following questions: (1*5=5)

- a) What do you mean by nutraceuticals?
- b) Distinguish between reducing and non-reducing sugar.
- c) What do you mean by hydrogenation of fat?
- d) What is derived protein?
- e) Write any two examples of non polar amino acids.
- f) Write the structure of α -D-glucopyranose.
- g) What do you mean by peptide bond?
- h) What is anomer?

UNIT II

2. Answer any two of the following questions: (2*5=10)

- a) What are the benefits of omega 3 and omega 6 fatty acids in human body? Give the different dietary sources of omega 3 and omega 6 fatty acids. 3+2=5
- b) What do you mean by NPU of protein? Describe two biochemical tests of protein. 1+4=5
- c) Describe the physiological functions of dietary fibre in human body. What is fermentable fibre? 4+1=5

d) Briefly describe the process of carbohydrate absorption in human body.

5

UNIT III

3. Answer *any one* of the following questions:

(1*10=10)

a) What is Zwitterion and Isoelectric point of amino acid? Classify amino acids based on their metabolic fate. What do you mean by denaturation of protein? (2+2) + 4 + 2=10

b) What is mutarotation? Write the mutarotation of glucose. What is the difference between D and L sugar? Write a short note on mucopolysaccharides. 2 + 4 + 2 + 2=10