

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
SEMESTER END THEORY EXAMINATION, B. Tech. Dairy Technology 2019-20

Semester	: III (V Dean)	Academic Year	: 2019-2020
Course No.	: DC-304	Course Title	: Human Nutrition
Credits	: 1+1=2	Total Marks	: 50
Day & Date	: Tuesday, 14.01.2020.	Time	: 15.00 to 17.00 Hrs.

- Note :**
- 1) All questions from **Section 'A'** are compulsory.
 - 2) Solve **Any Three** questions from **Section 'B'**.
 - 3) Draw neat and well labelled diagram wherever necessary.

SECTION - 'A'

Q. 1 A) Choose the most appropriate answer from the options given below. (05)

- i) Cobalt required for biosynthesis of vitamin
 - a) B1
 - b) B5
 - c) B6
 - d) B12
- ii) is sometimes called as "silent nutrient".
 - a) Fat
 - b) Protein
 - c) Lactose
 - d) Water
- iii) Deficiency of vitamin B1 causes disorder.
 - a) Night blindness
 - b) Rickets
 - c) Beri beri
 - d) Scurvy
- iv) Human saliva contains enzyme.
 - a) Amylase
 - b) Lactase
 - c) Lipase
 - d) All of these
- v) Lactose intolerance is caused by the deficiency of enzyme.
 - a) Phenylalanine hydroxylase
 - b) Lactase
 - c) Galactokinase
 - d) UDP galactose epimerase

B) Define the following. (05)

- i) Nutrition
- ii) RDA
- iii) Antibiotics
- iv) Nutraceutical
- v) Food toxins

Q. 2 A) Give reasons for the following. (05)

- i) Energy is required for human to live normal life.
- ii) Bile is necessary during fat digestion.
- iii) Phenylketouria disorder.
- iv) Galactosemia disorder.
- v) Consumption of raw egg white resulted in biotin deficiency.

- B) State whether True or False. If false, rewrite the statement after making necessary corrections to underlined word. (05)
- i) Malnutrition is a condition characterized by the inappropriate quality, quantity, digestion, absorption or utilization of ingested nutrients.
 - ii) Lactoferrin and lysozyme are carbohydrates.
 - iii) Vitamin comes in the category of macronutrients.
 - iv) A bomb calorimeter is a type of constant volume calorimeter used in measuring the heat of combustion of a particular reaction.
 - v) Milk proteins are the main source of amino acids for the new born.

SECTION –‘B’

- Q. 3. A) State the biological functions of vitamin A, D, E, K and draw the structure of vitamin A. (05)
- B) Enumerate the functions of different nutrients. (05)
- Q. 4 A) Define hormones and discuss in details its classification and mechanism of action. (05)
- B) Explain the nutrient requirement of children, adult and pregnant women. (05)
- Q. 5 A) Discuss in brief evaluation of nutritive value of proteins. (03)
- B) Explain the concept of balanced diet. (03)
- C) Give the classification of food additives. (04)
- Q. 6 A) Give short note on radionuclides in milk and milk products. (03)
- B) Differentiate between milk intolerance and hypersensitivity. (03)
- C) Write a note on anti-nutritional factors in food. (04)
- Q. 7 Explain the digestion, absorption and assimilation process of nutrients. (10)
