



USN

BBT654B

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2025
Food, Nutrition and Health

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.

2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1			M	L	C
Q.1	a.	Explain physiological, psychological and social functions of food.	10	L2	CO1
	b.	Explain fat soluble vitamins with their sources, functions and deficiency effects.	10	L2	CO1
OR					
Q.2	a.	What are anti-nutritional factors in food? Give examples and their impact on health.	10	L1	CO1
	b.	Discuss the case study where, A college student, Riya follows a strict diet plan mostly consists of packaged food and instant meals. Over a few months, she starts experiencing fatigue, frequent colds, and difficulty concentrating. A nutritional check reveals she is deficient in Vitamin C, iron and dietary fibre. What are the possible causes of her symptoms based on her diet and how do Vitamin C, iron and dietary symptoms based on her diet. Suggest dietary changes Riya should make to improve her nutritional status.	10	L2	CO1
Module – 2					
Q.3	a.	Illustrate in detail about food pyramid with a neat diagram. How is it useful in diet planning?	10	L2	CO2
	b.	Define malnutrition. Explain how do overweight and obesity come under malnutrition.	10	L2	CO2
OR					
Q.4	a.	What are Recommended Dietary Allowances (RDA)? Explain the factors affecting dietary planning.	10	L2	CO2
	b.	Summarize the importance of nutrition in physical fitness and sports. Give the impact for good health.	10	L2	CO2
Module – 3					
Q.5	a.	Describe Protein Energy Malnutrition (PEM), with its causes, symptoms and prevention.	10	L2	CO3
	b.	Explain biological value and protein efficiency ratio of proteins in brief with examples.	10	L2	CO3
1 of 2					

OR

Q.6	a.	Explain diabetes mellitus and differentiate between Type I and Type II diabetes and their dietary treatment.	10	L2	CO3
	b.	Explain the role of diet in the prevention and management of coronary heart disease, hypertension and hyperlipidemia.	10	L2	CO3

Module – 4

Q.7	a.	Interpret the major causes of nutritional losses during food processing and cooking. Suggest four preventive measures to minimize nutrient loss during thermal processing.	10	L2	CO4
	b.	Describe the nutritional contributions of cereals and pulses during cooking. How do cooking methods like frying and steaming affect the nutrient content?	10	L2	CO4

OR

Q.8	a.	Explain the advantages and disadvantages of thermal processing methods in detail.	10	L2	CO4
	b.	Explain the role of packaging in preserving nutrients in processed foods. Provide two examples of packaging techniques that help retain the nutritional quality of fruits and vegetables.	10	L2	CO4

Module – 5

Q.9	a.	Explain the key external and internal factors to consider during food product development and provide one example for each.	10	L2	CO5
	b.	Discuss how consumer demands and societal changes influence innovation in food product development, with examples.	10	L2	CO5

OR

Q.10	a.	Explain “repositioned” and “reformulated” products in food product development. Illustrate with one example for each.	10	L2	CO5
	b.	Explain the importance of FSSAI and HACCP standards in food product development and how they ensure consumer safety.	10	L2	CO5

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