

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION MAY 2026
(Fifth Semester)

Branch - FOOD PROCESSING TECHNOLOGY

PRINCIPLES OF NUTRITION

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Question No.	Question	K Level	CO
1	Which of the following is a soluble dietary fibre? a) Cellulose b) Pectin c) Lignin d) Hemicellulose	K1	CO1
2	Infer about Thermic Effect of Food a) The energy required to maintain vital body functions at rest b) The energy expended during physical activity c) The energy used for digestion, absorption, and metabolism of nutrients after eating d) The total daily energy expenditure	K2	CO1
3	Which of the following is an essential amino acid? a) Glycine b) Alanine c) Serine d) Lysine	K1	CO2
4	The Biological Value of a protein measures a) The total nitrogen content of food b) The digestibility of a protein c) The efficiency with which absorbed protein is converted into body protein d) The caloric value of protein	K2	CO2
5	Which of the following vitamins is fat-soluble? a) Vitamin B1 b) Vitamin C c) Vitamin B12 d) Vitamin K	K1	CO3
6	Deficiency of Vitamin D in children causes a) Pellagra b) Rickets c) Beriberi d) Scurvy	K2	CO3
7	Which is the major function of calcium in the body? a) Transport of oxygen b) Formation of bones and teeth c) Regulation of thyroid hormone d) Maintenance of blood sugar	K1	CO4
8	Show Iron is an essential component of which among the following? a) Myoglobin and hemoglobin b) Insulin c) Thyroxine d) Vitamin B12	K2	CO4
9	Water constitutes approximately what percentage of an adult human body? a) 25–30% b) 40–45% c) 50–70% d) 80–90%	K1	CO5
10	Infer which of the following electrolytes is the main extracellular cation? a) Potassium (K ⁺) b) Sodium (Na ⁺) c) Chloride (Cl ⁻) d) Calcium (Ca ²⁺)	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Interpret on the different components of energy expenditure? Describe briefly.	K2	CO1
	(OR)			
	11.b.	Outline the sources and functions of carbohydrates in the human body.		
2	12.a.	Construct the methods of protein quality evaluation – PER, BV, and PDCAAS.	K3	CO2
	(OR)			
	12.b.	Identify the nutritional significance of essential fatty acids and its types.		
3	13.a.	Highlight the functions of vitamin E.	K3	CO3
	(OR)			
	13.b.	Identify the symptoms of Vitamin C.		
4	14.a.	Analyse the importance of iodine and effects of its deficiency.	K4	CO4
	(OR)			
	14.b.	List the sources and functions of zinc.		
5	15.a.	Analyse the meaning of water balance and the effects of water imbalance.	K4	CO5
	(OR)			
	15.b.	Inspect the role of electrolytes in our body.		

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Describe in detail the digestion, absorption, and utilization of carbohydrates in the human body.	K4	CO1
2	17	Categorize the types, sources, functions, and physiological importance of fats.	K4	CO2
3	18	Examine the functions and toxicity of vitamin A.	K4	CO3
4	19	Deduce the sources, functions, daily requirements and deficiency of calcium.	K4	CO4
5	20	Analyse how acid base balance is maintained in our body.	K4	CO5