B.Sc. T.Y. (CBCS Pattern) Semester - V
USBCDST-11 - Biochemistry Paper-III (Nutritional Biochemistry)

P. Pages : 2

Time : Three Hours

Max. Marks : 50

0256

––

Notes : 1. All questions are compulsory.
2. All questions carry equal marks.

1. Discuss the measurement of energy expenditure by direct and indirect colorimetric method. **10**

OR

a) Discuss the factors affecting energy input. **2½**

b) Write a note on BMR. **2½**

c) Discuss Biological oxidation of foodstuff. **2½**

d) Discuss the role of nutrients on human health. **2½**

2. Discuss in detail Functions and clinical significance of Essential Fatty Acids. **10**

OR

a) Write a note on role of saturated fat. **2½**

b) Discuss role of fiber in lipid metabolism. **2½**

c) Write a note on Polyunsaturated and Saturated Fatty Acids. **2½**

d) Give the clinical significance of blood glucose. **2½**

3. Discuss the role of Calcium, Phosphorus and Iron in metabolism. **10**

OR

a) Enlist the functions of proteins in the body. **2½**

b) What are Essential amino acids? Give their examples. **2½**

c) What is anemia? How it is related with iron deficiency. **2½**

d) What is importance of Mg and Cu in metabolism. **2½**

4. Discuss in detail water soluble vitamins. **10**

OR

1

a)	Write a note on vitamin A.	**2½**
b)	Give clinical significance of Vitamin D.	**2½**
c)	Write a note on clinical importance of vitamin K.	**2½**
d)	Explain the role of Vitamin E as antioxidant.	**2½**

5. Solve **any ten** form following.

i)	What is balanced diet?	**1**
ii)	What is body mass index (BMI)?	**1**
iii)	Give full form of BMR.	**1**
iv)	What is normal glucose level in blood?	**1**
v)	Give one example of lipoprotein.	**1**
vi)	Name one disorder which occurs due to deficiency of any essential fatty acid.	**1**
vii)	What is nitrogen balance?	**1**
viii)	Give symptoms of Kwashiorkor.	**1**
ix)	Name the disorder occurs due to Mg deficiency.	**1**
x)	Give chemical Name of Vitamin E.	**1**
xi)	Give the precursor of Vitamin C.	**1**
xii)	Ricketts occurs due to deficiency of-------- (Fill in the blanks)	**1**

****