



**WEST BENGAL STATE UNIVERSITY**

B.Sc. Honours 6th Semester Examination, 2022

**PHYADSE04T-PHYSIOLOGY (DSE3/4)**

**HUMAN NUTRITION AND DIETETICS**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates are required to give their answers in their own words as far as practicable.*

**Answer any five questions from the following**

8×5 = 40

1. (a) What is the difference between water-soluble and water-insoluble dietary fibers? 2+6  
(b) Briefly discuss the factors controlling BMR.
2. (a) Write a note on starvation. 3+5  
(b) Prepare a low cost balanced diet chart for a pregnant woman.
3. (a) Write the significance of sodium in maintenance of fluid balance. 3+3+2  
(b) State the role of calcium in enzyme action and blood coagulation.  
(c) What is non-heme iron storage form of iron?
4. (a) Define ACU. 2+(2+1)+3  
(b) Define protein efficiency ratio (PER). Give examples of both animal and vegetable proteins.  
(c) How can you measure PER?
5. (a) What do you mean by calorie value of food? 3+2+3  
(b) Why does food give less energy in the living body than its actual calorie value?  
(c) Write the relationship between energy expenditure in different categories of physical activities.
6. (a) What are protein spacers? 2+2+4  
(b) Differentiate between visible and invisible fats.  
(c) Describe the changes in metabolism during starvation.

7. (a) State the factors that affect the biological value of proteins. 3+5  
(b) Discuss the role of vitamin K in blood coagulation.
8. (a) Write the source and daily requirements of vitamin C. (2+2)+4  
(b) Describe the role of vitamin C in hydroxylation process.

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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