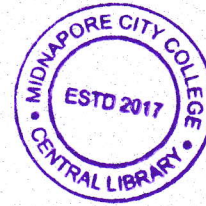


The West Bengal University of Health Sciences
M. Sc. in Applied Nutrition Part - I October, 2023 Examination

Subject: Physiology & Nutritional Biochemistry
 Paper: I



Full Marks: 80
 Time: 3 hrs.

Unit – I (Physiology)

1. Answer **any two** of the following :
 - a) Explain the mechanism of Gastric HCl secretion. What is peptic ulcer? 7+3
 - b) Discuss the steps of coagulation cascade. Enumerate coagulation disorders. 6+4
 - c) Briefly discuss the long term regulation of blood pressure. What are the consequences of high blood pressure? 7+3
2. Write in brief about **any four** of the following : 4 x 5
 - a) Different phases of Cardiac cycle.
 - b) Factor controlling erythropoiesis.
 - c) Role of Hormone controlling Menstruations.
 - d) GFR.
 - e) What do you mean by dead space? Classify it.
 - f) Write the functions of cerebellum.

Unit – II (Nutritional Biochemistry)

3. Answer **any two** questions of the following :
 - a) What is coenzyme? Write down the factors affecting enzyme activity. Describe any one of them. What do mean by oxidative phosphorylation? What is energy currency of cell? 2+2+3+2+1
 - b) What is beta oxidation? Write down the process of beta oxidation of palmitic acid (16C) and give the energy calculation. 2+4+4
 - c) Name the sugars found in fructose. Write the name of two phospholipids. State two differences between DNA and RNA. Name the cycle required for nitrogen excretion from body? Provide the outline of the cycle. What is PKU? Give one example of PUFA. 1+2+2+3+1+1
4. Write in brief about **any four** of the following : 4 x 5
 - a) Short notes on ELISA.
 - b) Classification of lipoproteins.
 - c) Deamination reaction.
 - d) Fatty acids transport to mitochondria.
 - e) Initiation of Transcription.
 - f) Compare and contrast between enzyme and hormone.