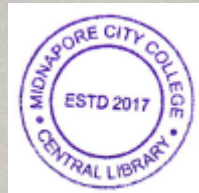


The West Bengal University of Health Sciences
B.Sc. Radiology and Imaging Technology Part-I
September-October, 2026 Examination



Subject : Human Physiology

Time : 3 hrs.

Full Marks : 80

Group – A

1. Answer **any four** questions of the following :

- a) What is reflex arc? Enumerate how reflex arc works in our body with example and its types. 2+6+2
- b) What is menstrual cycle? Explain the ovarian changes taking place during menstrual cycle. Define ovulation. 2+6+2
- c) Describe ventricular events of the cardiac cycle. Describe the factors affecting blood pressure. 5+5
- d) Briefly describe the mechanism of CO₂ transport in our body. What do you mean by Tidal Volume and Vital Capacity? 6+2+2
- e) What are the different types of salivary glands? Describe the composition, functions and regulation of secretion of saliva. 2+3+3+2
- f) What is sliding-filament theory? Briefly describe the excitation-contraction coupling mechanism of skeletal muscle. 2+8

Group – B

2. Write short notes on **any six** of the following :

6 x 5

- a) What do you mean by phototransduction? Give an account of details in phototransduction cascade mechanism. 1+4
- b) What do you mean by stroke volume and minute volume?
- c) What is chemical synapse? Describe the structure of a chemical synapse. 1+4
- d) Describe the intrinsic mechanism of blood coagulation.
- e) What do you mean by depolarization and how action potential is reached?
- f) State the physiological basis of fever.
- g) Write a short note on hypoxia.
- h) Write a short note about JG apparatus.

Group – C

7. Answer **any five** question of the following :

5 x 2

- a) What is cyanosis?
- b) Write the name of photoreceptor cells.
- c) What is diaphragm?
- d) Mention the name of hormones secreted from adrenal cortex.
- e) State the names of spinal nerves.
- f) From where HCl is secreted?
- g) What do you know about cardiac arrest?
- h) What are blind spot and yellow spot in human eye?