

INTERNAL EXAMINATION
JANUARY – 2026
BACHELOR OF PHYSIOTHERAPY
FIRST SEMESTER

Course Name: Biochemistry

Course Code: BPT-103

DATE: 13/01/2026

TIME: 11:00 am to 12:00 pm

TOTAL MARKS: 30

Instructions:

1. Examinees must bring their ID card every day.
2. Read the questions carefully.
3. You **must not** talk to, attempt to communicate with or disturb another candidate.
4. Possession of a mobile phone and any other material is prohibited.

A. Multiple Choice Questions (All compulsory) (6x 1 = 6)

- Write down the one correct answer for MCQ in supplementary.

1. Which of these is not a fat-soluble vitamin?

- a. Vitamin A
- b. Vitamin D
- c. Vitamin C
- d. Vitamin K

2. What is the RQ value of proteins?

- a. 1
- b. 0.6
- c. 2
- d. 0.8

3. What is the Physiological fuel value of fats?

- a. 9 kcal/g
- b. 4 kcal/g
- c. 7 kcal/g
- d. 12 kcal/g

4. Which of the following hormone is not involved in the regulation of blood glucose?

- a. Insulin
- b. Glucagon
- c. Cortisol
- d. Prolactin

5. Which of these is not a type of simple sugar?

- a. Glucose
- b. Fructose
- c. Galactose
- d. Sucrose

6. Cholesterol is which type of lipid?

- a. Simple
- b. Complex
- c. Derived
- d. Compound

B. Write Short notes (Any Two)

(2 x 2 = 4)

1. Write down the definition of Respiratory Quotient.
2. Mention the composition/constituents of Phospholipids and Glycolipids.
3. Define Essential Fatty Acids. Give two examples.

C. Write Short notes (Any Two)

(5 x 2 = 10)

1. Define BMR. Mention the factors affecting it.
2. Describe the classification of Lipoproteins by density with their functions.
3. Write down the general classification of Carbohydrates.

D. Write Long notes (Any One)

(10 x 1 = 10)

1. Explain Kreb's Cycle in detail (location, all steps, final products, energy yield, and cofactors involved).
2. Define muscle contraction and describe the process with steps of muscle contraction.