SECOND YEAR B.P.Ed. (INTEGRATED) DEGREE EXAMINATION, APRIL 2025

(Regular/Supplementary/Improvement)

CC15U BPE2 T7 / CC19U BPE2 T7 - PHYSIOLOGY AND PHYSIOLOGY OF EXERCISE

(2015 Admission onwards)

Time: Three Hours   Maximum: 75 Marks

Part – A

Answer any *three* questions.

1. Describe the effect of exercise on circulatory, respiratory and muscular systems.

(1 × 15 = 15 Marks)

2. Explain the following:
   a. Internal respiration
   b. Systemic Circulation
   c. Neuro Muscular Junction.

(3 × 5 = 15 Marks)

3. (A) Match the following:

a.	Involuntary muscle	i.	Building up process
b.	Myology	ii.	Fatigue
c.	Thin filament	iii.	Control breathing
d.	Injuries involving ligament	iv.	Breakdown process
e.	Thick filament --	v.	Sprains
f.	Glucagon	vi.	Smooth muscle
g.	Lactic acid accumulation	vii.	Study of muscle
h.	Anabolism	viii.	Actin
i.	Catabolism	ix.	Myosin
j.	Medulla oblongata	x.	Pancreas

(1 × 10 = 10 Marks)

(B) Fill in the blanks:

   a. _____ energy is produced by 1 gram of fat.

   b. _____ is the property of muscle tissue that allows it to generate force during contraction.

   c. Endocrine glands are called _____

   d. Physical exercise done in the absence of oxygen is called _____

   e. The functional unit of the kidney is called _____

(1 × 5 = 5 Marks)

4. Explain:

    a. Functions of liver.

    b. Types of Skeletal muscle fibres.

    c. Pulmonary circulation.

    (3 × 5 = 15 Marks)

5. Explain:

    a. Physiology of warming up.

    b. Classification of Enzyme.

    c. Carbohydrates Metabolism.

    (3 × 5 = 15 Marks)

Part – B

Answer any *one* question.

6. a. Functions of Autonomous Nervous System.

    b. Briefly explain Physiological factors affecting speed, strength and endurance.

    (2 × 7 ½ = 15 Marks)

7. Describe briefly:

    a. Functions of cerebellum.

    b. External respiration.

    c. Influence of temperature on metabolism.

    (3 × 5 = 15 Marks)

Part – C

Answer any *five* questions.

8. Cardiac output.

9. Pancreas.

10. Synapse.

11. Oxygen debt.

12. Blood pressure.

13. Define physiology.

14. Muscle stitch.

15. Vital Capacity.

(5 × 3 = 15 Marks)

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