19BP22 (Pages: 2) Name: ……

Reg. No: ….……

SECOND YEAR B.P.Ed. DEGREE EXAMINATION, APRIL 2021

(Regular/Supplementary/Improvement)

BPE2 T7 - PHYSIOLOGY AND PHYSIOLOGY OF EXERCISE

(2015 Admission onwards)

Time: Three Hours Maximum: 75 Marks

Answer any ***three*** questions from **Part –A.**

Any ***one*** question from **Part-B.** Question from **Part C** is Compulsory

Part A

1. Explain the physiology of muscle contraction.

(1 × 15 = 15 Marks)

2. Give an explanation on:
   (a) Second wind.
   (b) Oxygen Dept.
   (c) Catabolism and Anabolism

(3 × 5 = 15 Marks)

3. (A) Match the following:

1. Skin fold Caliper	-	Muscle
2. Myocardium	-	Sarcoplasm
3. Sarcolemma	-	Body fat
4. Muscle	-	Breathing
5. Tidal Volume	-	Involuntary
6. Krebs cycle	-	Gall bladder
7. Salivary gland	-	Mitochondria
8. Bile	-	Actin
9. Intercostal Muscle	-	Heart
10. Reflex action	-	Salivary glands

(10 × 1 = 10 Marks)

(B) Fill in the blanks:

(a) _____ is the amount of air that remains in the lungs and passage ways after a maximal expiration.

(b) Blood is deoxygenated in _____

(c) Gas exchange between the blood and body cell is called _____

(d) Subtract _____ from _____ to get a maximum heart rate during exercise.

(e) The result of Krebs cycle is _____

(5 × 1 = 5 Marks)

4. Explain:
   (a) ATP.
   (b) Neuromuscular junction.
   (c) Factors affecting Speed.

(3 × 5 = 15 Marks)

5. Explain:
   (a) Effect of exercise on Circulatory System.
   (b) Effect of exercise of Muscular System.
   (c) Physiological aspects of warming up.

(3 × 5 = 15 Marks)

Part B

6. (a) Explain the classification and mode of action of digestive enzymes.
   (b) Carbohydrate metabolism.

(2 × 7 ½ = 15 Marks)

7. (a) Mechanism of respiration.
   (b) Explain, how the Cerebrum and cerebellum is related with Physical movement and movement learning.
   (c) Describe, how temperature influence the metabolism.

(3 × 5 = 15 Marks)

Part C

8. Write short note on any ***five*** of the following
   (a) Muscle tone.
   (b) Muscle fatigue.
   (c) Alveoli.
   (d) Ultra filtration.
   (e) Spinal cord.
   (f) Conditioning.
   (g) Osmotic regulation
   (h) Transfer of body heat.

(5 × 3 = 15 Marks)

****