

**21BP22**

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Name: .....

Reg. No: .....

**SECOND YEAR B.P.Ed. (INTEGRATED) DEGREE EXAMINATION, APRIL 2023**

(Regular/Supplementary/Improvement)

**CC15U BPE2 T7 / CC19U 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

1. Explain the effect of exercise on Circulatory System.

**(1 × 15 = 15 Marks)**

2. Give an explanation on:

- (a) Digestive system
- (b) Hyper trophy of Muscle.
- (c) Anabolic training

**(3 × 5 = 15 Marks)**

3. (A) Match the following:

- |                     |   |                            |
|---------------------|---|----------------------------|
| 1. Sphygmomanometer | - | Osmotic regulation.        |
| 2. Tidal volume     | - | Diastole.                  |
| 3. Hypothermia      | - | Vital capacity.            |
| 4. Cross bridges    | - | Perimysium.                |
| 5. Heart beat       | - | Breathing.                 |
| 6. Muscle           | - | Blood pressure.            |
| 7. Heart            | - | Elevated body temperature. |
| 8. Tidal volume     | - | Volume of air.             |
| 9. Kidney           | - | Endocardium.               |
| 10. Spiro meter     | - | Myosin.                    |

**(10 × 1 = 10 Marks)**

- (B) Fill in the blanks:

- (a) Systolic pressure of a normal person is .....
- (b) ..... is the volume of air expire after a deep inhalation.
- (c) Blood is deoxygenated in .....
- (d) The result of Krebs cycle is .....
- (e) ..... carries the nerve signals from brain to the body parts.

**(5 × 1 = 5 Marks)**

4. Explain:
- (a) Why breathing rate is increasing during training?
  - (b) Neuromuscular junction.
  - (c) Factors affecting acquisition of skill.

**(3 × 5 = 15 Marks)**

5. Explain:
- (a) Physiological factors of Speed and Strength.
  - (b) Muscle tone and muscle fatigue
  - (c) Mechanism of respiration.

**(3 × 5 = 15 Marks)**

### **Part B**

6. (a) Explain elasticity and contractility of muscle.  
(b) Fat metabolism.

**(2 × 7½ = 15 Marks)**

7. (a) Second wind.  
(b) Explain the physiological response of body to the hot climate.  
(c) Functions of cerebrum and cerebellum.

**(3 × 5 = 15 Marks)**

### **Part C**

8. Write short note on *any five* of the following:
- (a) Spinal cord.
  - (b) Excitability of muscle.
  - (c) Pulmonary respiration.
  - (d) Ultra filtration.
  - (e) Warming up.
  - (f) Role of inter costal muscle.
  - (g) Ionic regulation.
  - (h) Stitch and cramps.

**(5 × 3 = 15 Marks)**

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