**Avinashilingam Institute for Home Science and Higher Education for Women**

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

**Bachelor of Physical Education Degree Examination – December 2023**
**I Semester**

**Class: I B.P.Ed.**

**Time : 3 Hours**
**Max. Marks : 100**

**23BPDC02 Anatomy, Physiology and Exercise Physiology**

**Course Outcomes:**
CO1: Understand the basic principles of anatomy and exercise physiology
CO2: Apply the knowledge in the field of Physical Education and movement activity
CO3: Analyse the practical knowledge of anatomy physiology and Exercise physiology in the practical situation
CO4: Remember and recall structure and functionsto correct with exercise physiology
CO5: Apprise the effect of exercise during training and practical sessions

**Part A** **10 x 1 = 10**
**Choose the Correct Answer**

1. Which is the largest tissue in the human body? **CO1 K1**
   a. Epithelial b. Connective c. Muscle d. Nervous tissue

2. How many vertebrae are there in human body ? **CO1 K2**
   a. 31 b. 32 c. 33 d. 30

3. The fluid portion of the blood is called as **CO1 K3**
   a. Lymph b. venous c. Platelets d. Plasma

4. How many lobes are there in Left Lung? **CO4 K1**
   a. 1 b. 2 c. 3 d. 0

5. The functional unit of kidney is called as **CO4 K2**
   a. Neuron b. Nephron c.Neuroglia d. None of the above

6. The process of taking food into the digestive system is known as **CO1 K2**
   a. Ingestion b.Salivation c. Propulsion d. Mastication

7. The ability to respond to a stimulus is known as **CO2 K3**
   a. Contractility b. Excitability c. Elasticity d. Extensibility

8. Second wind is more common in which Sports? **CO3 K2**
   a. Resistance b.Endurance c. Flexibility d. Recreation

9. Any activity of long duration with low intensity is called **CO5 K3**
   a. Endurance b. Power c. Strength d. Agility

10. Stored form of glucose in muscle is called as **CO4 K5**
    a. Glycolysis b. Glycogen c. ATP d. None of the above

**Part B** **5 x 6 = 30**

**Answer ALL questions**

**Each answer should not exceed 400 words or two pages**

| | | |
|---|---|---|
| 11.a. | Enumerate the types of tissues and explain connective tissue in detail. | **CO1 K4** |
| | (or) | |
| 11.b. | Enlist the types of muscles and explain the structure of cardiac muscle with a diagram. | **CO1 K3** |
| 12.a. | Explain the role of nephron in Urine formation. | **CO3 K1** |
| | (or) | |
| 12.b. | Elucidate the types of blood cells and explain their functions. | **CO3 K2** |
| 13.a. | Sketch out the structure of Human Eye and explain the function of cornea. | **CO4 K3** |
| | (or) | |
| 13.b. | Highlight the functions of pancreas and its secretion. | **CO4 K5** |
| 14.a. | Elucidate the transmission of nerve impulse in Heart. | **CO3 K4** |
| | (or) | |
| 14.b. | Discuss the concept of oxygen debt and vital capacity in physical training. | **CO5 K6** |
| 15.a. | Analyse the significance of warm up and conditioning in fitness training. | **CO5 K6** |
| | (or) | |
| 15.b. | Write about the causes and effect of fatigue. | **CO3 K2** |

**Part C** **5 x 12 = 60**

**Answer ALL questions**

**Each answer should not exceed 800 words or four pages**

| | | |
|---|---|---|
| 16.a. | Draw a labelled diagram of Human Cell and explain the function of any organelles. | **CO1 K4** |
| | (or) | |
| 16.b. | Classify Joints in detail. Explain the characteristics of Synovial Joint in detail. | **CO3 K2** |
| 17.a. | Draw a neat diagram of Human Heart and explain the types of circulation. | **CO3 K5** |
| | (or) | |
| 17.b. | Explain the Respiratory system and describe the mechanism & Regulation of Respiration in detail. | **CO1 K4** |
| 18.a. | Explain about central nervous system in detail. | **CO3 K3** |
| | (or) | |
| 18.b. | Enumerate the hormones secreted by Anterior pituitary gland with its significance in Human bodily functions. | **CO1 K5** |
| 19.a. | Justify the need and importance of knowledge of exercise physiology and nutrition for physical education and sports students. | **CO5 K6** |
| | (or) | |
| 19.b. | Explain the effect of exercise on muscular system. | **CO4 K4** |
| 20.a. | Discuss the beneficial effects of training on circulatory system. | **CO2 K6** |
| | (or) | |
| 20.b. | Highlight the importance of diet before, during and after competitions to achieve high performance. | **CO2 K1** |

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