

2022

**PHYSIOLOGY**

**[HONOURS]**

**(B.Sc. Sixth Semester End Examination-2022)**

**PAPER-DSE4T**

*Full Marks: 40*

*Time: 02 Hrs*

*The figures in the right hand margin indicate marks*

*Candidates are required to give their answers in their own words as far as practicable*

*Illustrate the answers wherever necessary*

1. **Answer any FIVE questions of the following:** **5x2= 10**
  - a) What do you mean by lactate threshold? 2
  - b) What are the objectives of ergonomics? 2
  - c) What do you understand by muscle hypertrophy? 2
  - d) How does  $VO_2$  max differ from  $VO_2$ ? 2
  - e) What is athletic heart? 2
  - f) Discuss the principle of bicycle ergometer. 2
  - g) What is isokinetic work? 2
  - h) Define  $O_2$  debt. 2
  
2. **Answer any FOUR questions of the following:** **4x5 = 20**
  - a) State the concept of EPOC & mention its significance. 3+2
  - b) Discuss the respiratory changes during graded exercise. 5

(2)

- c) State the different mechanism of muscular fatigue. 5
- d) Describe briefly the assessment of physical fitness by Harvard step test. 5
- e) Discuss how ergonomic principles reduce occupational health hazards. 5
- f) Describe different factors that affect VO<sub>2</sub> max. 5

**3. Answer any ONE questions of the following: 1x10 = 10**

- a) i) Describe the cardiovascular changes during graded work.  
ii) State the energy pathways involved in anaerobic exercise. 5+5
- b) i) State the application of anthropometry in ergonomic designing.  
ii) Mention any four anthropometric measurements of our body parts with their physiological importance. 5+5

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