

U.G. 4th Semester Examination - 2022

PHYSIOLOGY

[HONOURS]

Course Code : PHYSIOL-H-CC-T-10

Full Marks : 40

Time : $2\frac{1}{2}$ Hour

The figures in the right-hand margin indicate marks.

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

1. Answer any **five** questions: $2 \times 5 = 10$
 - a) Name the enzyme secreted by pulmonary capillaries. What is the function of this enzyme?
 - b) What do you mean by intrapleural pressure?
 - c) What is tidal volume?
 - d) Name the instrument used for the measurement of lung volumes and capacities. What is spirogram?
 - e) What do you mean by physiological dead space?
 - f) What is the significance of respiratory quotient?

- g) What are the effects of hypercapnea?
2. Answer any **two** questions: $5 \times 2 = 10$
 - a) Discuss briefly about static and dynamic lung compliance. 5
 - b) Write a short note on vital capacity. 5
 - c) Define restrictive and obstructive respiratory diseases. 5
 - d) Write a note on artificial respiration. 5
3. Answer any **two** questions : $10 \times 2 = 20$
 - a) What are static and dynamic lung function tests? Write a short notes on lung volumes and lung capacities. $(2+2)+(3+3)=10$
 - b) What do you mean by peak expiratory flow rate (PEFR)? What is the significance of determining PEFR? Mention about the factors affecting oxygen-hemoglobin dissociation curve. $2+3+5=10$
 - c) What is respiratory-exchange ratio? Write briefly about the exchange of gases at tissue level during respiration. Mention the names of different types of hypoxia. $2+6+2=10$
 - d) Discuss briefly about the control of breathing by the brain centres. 10

[Turn Over]