

**Physiology [Honours]
[CBCS]**

**B.Sc. Third Semester End Examination-2023
(Regular & Supplementary Paper)**

PAPER-C6T

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

Group A

- 1) Answer any FIVE questions of the following: 5x2= 10**
- a) Write the name of accessory muscles involved in forceful inspiration. 1+1
 - b) What do you mean by intrapleural and intra pulmonary pressure? 1+1
 - c) Write the significance of Functional Residual Capacity (FRC) of lung. Mention its value. 1+1
 - d) What is lung compliance?
 - e) Write the causes of shifting Hb-dissociation curve to left.
 - f) What is Halden's effect?
 - g) What is 'J' receptor? Mention its function.
 - h) What are apnoea and cyanosis?

(2)

Group B

2. Answer any FOUR questions of the following: 4x5 = 20

- a) Write down the role of diaphragm and external intercostals muscle in tidal respiration
"Explain in passive process but forced expiration is active process" – Justify the statement. 3+2
- b) Write down the composition and functions of pulmonary surfactant. 2+3
- c) Write down the characteristics features of pulmonary circulation. Write down the physiological significance of alveolar ventilation. 5
- d) What do you mean by ventilation perfusion ratio? Define pump handle movement of respiration. What is physiological dead space? 2+2+1
- e) Write the role of pontine respiratory centre to control the rate and depth of respiration.
- f) Write the causes of hypoxic and histotoxic hypoxia. What is asphyxia? 4+1

Group C

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

- a) Explain the ways in which carbon-di-oxide is transported in blood. What do you mean by partial pressure of blood gases? Mention the composition of alveolar air 6+2+2

(3)

- b) Explain why myoglobin dissociation curve is not sigmoid shaped as in case of Hb-dissociation.

What is dyspnoea?

What do you mean by baroreceptors?

5+3+2
