



WEST BENGAL STATE UNIVERSITY

B.Sc. Honours 4th Semester Examination, 2022

PHYACOR10T-PHYSIOLOGY (CC10)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.*

Answer any five questions from the following

8×5 = 40

1. (a) What is reverse chloride shift? 2+4+2
(b) Describe the role of 'Chloride shift' in the transport of CO₂ from tissues to lung.
(c) What is Haldane effect?
2. (a) What are Hering-Breuer inflation and deflation reflex? 4+2+2
(b) State the origin and function of 'Phrenic nerve'.
(c) What is Pre-Botzinger complex?
3. (a) Briefly discuss the effects of hypoxia in the body. 4+3+1
(b) What is the impact of hyperventilation on normal respiration?
(c) What is apnea time?
4. (a) Describe the effects of nitrogen toxicity in deep-sea divers. 5+3
(b) What do you mean by Caisson's disease?
5. (a) Describe the role of respiratory muscles in the control of breathing. 6+2
(b) What is asphyxia?
6. Describe the role of central and peripheral chemoreceptor's in the regulation of respiration. 8
7. (a) What is surfactant? 2+4+2
(b) State the role of surfactant in maintaining lung compliance.
(c) What do you mean by Pneumothorax?
8. (a) Mention the lung volumes and capacities that cannot be measured directly with spirometer and why? 4+2+2
(b) What do you mean by FEV? Write its significance.

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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