



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 3rd Semester Examination, 2021-22

PHYACOR06T-PHYSIOLOGY (CC6)

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) Describe the histological structure and special properties of cardiac muscle. 4
(b) Describe a normal human ECG complex and correlate it with the spread of cardiac impulse. 4
2. (a) Discuss the reason, significance and occurrence of second heart sound. 4
(b) What is the difference between Korotkoff and Murmur sounds? 4
3. (a) What is cardiac output? Describe the factors affecting cardiac output. 1+5
(b) What is cardiac work index? 2
4. (a) Explain Poiseuille's law. 3
(b) What is sinus arrhythmia? What is its clinical significance? 1+2
(c) Mention two structural peculiarities of coronary circulation. 2
5. (a) Discuss the anatomical consideration of hepatic circulation. 3
(b) Discuss the factors regulating the pulmonary circulation with special reference to its peculiarities. 5
6. (a) Describe the factors regulating arterial blood pressure. 4
(b) Discuss the role of various factors that regulates the cerebral blood flow. 4
7. Write notes on any *two* of the following: 4×2 = 8
(a) Baroreceptor denervation
(b) Bernoulli's principle
(c) Triple responses of skin.
8. Discuss how hypertension, hemorrhage and circulatory shock affect vascular health. 3+3+2

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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