



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 3rd Semester Examination, 2020, held in 2021

PHYACOR06T-PHYSIOLOGY (CC6)

CIRCULATION

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) Write about the natural pacemaker of the heart. What is an ectopic beat? (2+1)+5
(b) Describe the origin and conduction of cardiac impulse.
2. (a) What are special junctional tissues of heart? 4+2+(1+1)
(b) State the signification of heart sound.
(c) What is cardiac index? What is apex beat?
3. (a) Describe the factors controlling cardiac output. How would you determine it? (3+2)+2+1
(b) Define Starling's law of heart.
(c) What is Stannius ligature?
4. (a) Describe the peculiarities of coronary circulation. 4+2+2
(b) Discuss the role of baroreceptor in the control of arterial blood pressure.
(c) State the significance of electrocardiographic leads.
5. (a) Describe the factors controlling hepatic circulation. 4+2+2
(b) What do you mean by autoregulation of renal circulation?
(c) What is Einthoven's law?
6. (a) What is circle of Willis? 2+2+4
(b) What do you mean by jugular venous pulse?
(c) Describe the pressure and volume change in ventricles during cardiac cycle.

7. (a) What is streamline flow? Write its significance in cardiac blood flow. 2+2+2+2
(b) “Higher the value of Re, greater the probability of turbulence” – Explain.
(c) What is diastasis?
8. Write short notes on (any *two*): 4+4
(a) Foetal circulation
(b) Vectorcardiogram
(c) Cardiac arrhythmia.

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.*

—x—