

THE UNIVERSITY OF BURDWAN
B. Sc. Semester 3 (Honours) Theory Examination, 2021(CBCS)
SUBJECT:PHYSIOLOGY
Paper: CC6 (Circulation)

Time: 2 Hours

Full Mark: 40

The figures in the right hand margin indicate full marks
Candidates are required to give their answers in their own words as far as practicable.

Examinees are instructed to submit the scanned copies/photographs of their answers' scripts within 30 minutes after the completion of examination

Answer any ***eight*** questions of the following: **(8 x5 = 40)**

1. Explain refractory period and staircase phenomena of cardiac muscles. What are gap junctions?
2. What is pace maker potential? Discuss the normal pathway of action potential conduction through the heart.
3. Explain Frank Starlings law of the heart. How is this law related to changes in ventricular preload?
4. Write briefly about myocardial infarction.
5. Discuss the role of arterial baroreceptor reflex in short-term regulation of blood pressure.
6. What is vascular tone? Discuss how vascular tone is regulated by prostaglandins and bradykinin.
7. State the ionic basis of Cardiac action potential. Mention the cause of plateau.
8. Define cardiac cycle? Outline the pressure volume changes in ventricles and aorta during each cardiac cycle.
9. Explain the physical basis of the Karotkoff sound. What is mean arterial pressure?
10. What is autoregulation of blood flow? Mention the peculiarities of cerebral circulation.