

B.Sc. 3rd Semester (Honours) Examination, 2019-20**PHYSIOLOGY****Course ID : 32512****Course Code : SH/PHY/302/C-6(T)**

Course Title: Circulation

Time: 1 Hour 15 Minutes**Full Marks: 25***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer *any five* questions: 1×5=5
- (a) Define cardiac output.
 - (b) What do you mean by complete and incomplete heart block?
 - (c) Mention the significance of T-wave.
 - (d) What do you mean by cardiac arrhythmia?
 - (e) Write the full form of ARAS. Write any one function of it.
 - (f) Define 'Einthoven's triangle'.
 - (g) Write any two peculiarities of cerebral circulation.
 - (h) What is cardiac vector?
2. Answer *any two* questions: 5×2=10
- (a) (i) Calculate minute volume of a person whose heart rate and stroke volume is 72 beats. min⁻¹ and 70ml respectively.
 - (ii) Describe the factors regulating cardiac output in man. 1+4=5
 - (b) Write the origin and implications of heart sounds. 5
 - (c) Write the changes occurring in different phases of ventricular systole. What is angina pectoris? 4+1=5
 - (d) What is cardiac hypertrophy? Mention the respiratory changes due to exercise. 1+4=5
3. Answer *any one* question: 10×1=10
- (a) (i) Describe the anatomical considerations and regulation of cutaneous circulation.
 - (ii) State the peculiarities of cerebral circulation. (4+3)+3=10
 - (b) (i) What is blood brain barrier? Write the function of blood brain barrier.
 - (ii) Mention the composition and function of CSF. (1+2)+(4+3)=10