

**U.G. 3rd Semester Examination - 2021****PHYSIOLOGY****[HONOURS]****Course Code : PHYSIOL-H-CC-T-06**

Full Marks : 40

Time :  $2\frac{1}{2}$  Hours*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.***GROUP-A**1. Answer any **five** from the following questions: $2 \times 5 = 10$ 

- a) Why SA node is called the pacemaker of the heart?
- b) Why pulmonary circulation is called lesser circulation?
- c) What is the significance of P-R interval?
- d) Define cardiac index.
- e) State the function of blood-brain barrier.
- f) What do you mean by ejection fraction?

- g) What is sinus arrhythmia?
- h) Define Starling's law of heart.

**GROUP - B**2. Answer any **two** from the following questions: $5 \times 2 = 10$ 

- a) Describe the special features of coronary circulation. 5
- b) What do you mean by foam cells? What is the role of foam cells in producing atherosclerosis?  $2+3=5$
- c) How will you determine the mean electrical axis of heart from the ECG recorded by any two standard limb leads? 5
- d) Write a brief note on cerebrovascular disease. 5

**GROUP - C**3. Answer any **two** from the following questions: $10 \times 2 = 20$ 

- a) i) What is cardiac output?
- ii) Describe the factors which control cardiac output.
- iii) Write a note on hypertension.

 $2+5+3=10$ *[Turn Over]*

- b) i) Discuss about the basic pathways involved in the medullary control of blood pressure with special reference to the role of CVLM, IVLM and RVLM.  
8+2=10
- ii) Why no sound is heard with stethoscope after the sounds of Korotkoff during blood pressure measurement?  
4+6=10
- c) i) Briefly describe the factors that control heart rate.  
5+5=10
- ii) Describe the peculiarities of pulmonary circulation.
- d) State the effects of negative and positive gravitation on cardiovascular system.

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