

**U.G. 3rd Semester Examination - 2020**

**PHYSIOLOGY**

[HONOURS]

Course Code : PHYSIOL-H-CC-T-06

Full Marks : 40

Time : 2½ 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:

2×5=10

- a) What is protodiastole?
- b) What do you mean by ischemic heart disease?
- c) What is transcapillary exchange?
- d) What is atrial fibrillation?
- e) What is meant by hypertension?
- f) What do you mean by end diastolic volume?
- g) State the difference between pressure pulse and pulse pressure.
- h) Define Poiseuille's law.

[Turn Over]

**GROUP-B**

2. Answer any **two** from the following questions:

5×2=10

- a) State the duration and electrophysiological basis of the different waves of a normal ECG with a neat diagram. 5
- b) Briefly describe the factors that influence cerebral circulation. 5
- c) What are the special junctional tissues of heart? What is vagus escape? 3+2
- d) Discuss the pressure changes in the heart during cardiac cycle. 5

**GROUP-C**

3. Answer any **two** from the following questions:

10×2=20

- a) i) Describe the mechanism of E-C coupling in cardiac muscle with the help of a diagram.
- ii) Write a note on autorhythmicity of cardiac muscle. 5+5
- b) i) What do you mean by shock? Briefly explain about the treatment provided for different shock.

- ii) What do you mean by cardiogenic shock?  
(2+6)+2
- c) i) What is minute volume?  
ii) Describe the role of baroreceptors in the regulation of blood pressure. 2+8
- d) Write a brief notes on 'artificial pacemaker' and 'cardiac myopathy'. 5+5
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