

**Physiology [Honours]**

**[CBCS]**

**B.Sc. Third Semester End Examination-2023**

**(Regular & Supplementary Paper)**

**PAPER-C5T**

***Full Marks: 40***

***Time: 02 Hrs***

*The figures in the right hand margin indicate marks*

*Candidates are required to give their answers in their own words as far as practicable*

*Illustrate the answers wherever necessary*

**Group A**

**1) Answer any FIVE questions of the following: 5x2= 10**

- a) What do you mean by sinus and nodal rhythm?
- b) What is auto rhythmicity?
- c) What do you mean by absolute and relative refractory period?
- d) What do you mean by "All or none law of heart".
- e) Define different kinds of arterial pulse.
- f) What is myocardial infarction?
- g) Distinguish between bradycardia and tachycardia.
- h) Define Starling's law of heart.

(2)

**Group B**

2. Answer any FOUR questions of the following:  $4 \times 5 = 20$
- a) Write down the origin and importance of 1<sup>st</sup> and 2<sup>nd</sup> heart sound.  $2\frac{1}{2} + 2\frac{1}{2}$
- b) Describe the peculiarities of coronary circulation.
- c) Discuss the role of baroreceptor and chemoreceptor in blood pressure regulation.  $2\frac{1}{2} + 2\frac{1}{2}$
- d) Describe the factors affecting cardiac output.  $1 + 4$
- e) What is heart block and how it occurs?
- f) Describe the innervation of heart.  $5$

**Group C**

3. Answer any ONE question of the following:  $1 \times 10 = 10$
- a) i) Describe the clinical importance of P wave, QRS complex and ST segment of ECG.
- ii) Discuss about the different leads used in ECG.  $6 + 4$
- b) i) Explain the following properties of Cardiac muscle :
- Conductivity
  - Stair case phenomenon
- ii) Why cardiac muscle cannot be fatigued or tetanized?
- iii) Write a note on myocardial infarction.  $(3 + 2) + 2 + 3$
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