2021
Physiology (Hons)
[Third Semester]
Paper - C5T
Full Marks : 40
Time : 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.
Illustrate the answers wherever necessary.

1. **Answer any five of the following :**   **5×2=10**

   a) What is cardiac index?   2

   b) Mention the properties of cardiac muscle.   2

   c) State Starling's law of heart.   2

   d) Why Cardiac muscle is not fatigued?   2

e) What do you mean by myocardial infarction?   2

f) Define Fick's principle?   2

g) What is venous return?   2

h) What do you mean by apex beat of heart?   2

Group-B

2. Answer any four of the following.   **4×5=20**

a) Why S.A. node is called the pacemaker of heart? What is artificial pacemaker. $2\frac{1}{2}+2\frac{1}{2}=5$

b) Write short notes on heart block.   5

c) Mention the origin & significance of different heart sound. $2\frac{1}{2}+2\frac{1}{2}=5$

d) Write short notes on aortic body & carotid body. $2\frac{1}{2}+2\frac{1}{2}=5$

e) What are the special junctional tissues of heart?   5

f) Write any four peculiarities of coronary circulation. 5

Group -C

Answer any one of the following :   **1×10=10**

1. Mention different components of normal ECG record.
    State the physiological importance and limitations of ECG.

    $$5+2\tfrac{1}{2}+2\tfrac{1}{2}=10$$

2. Describe the process of determination of cardiac output by Fick's method.
    Discuss the factors regulating cardiac output.
    Write two factors affecting blood pressure.   4+4+2