B.Sc. Semester III (Honours) Examination, 2018-19
PHYSIOLOGY

Course ID : 32512　　　　　　　　　**Course Code : SHPHY/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 from the following:　　　　　　　1×5=5

　　(a)　Define Einthoven's Law.

　　(b)　Mention the importance of circle of Willis.

　　(c)　What is cardiac index?

　　(d)　Write the role of adrenaline on blood vessels.

　　(e)　What is red out?

　　(f)　State the location and function of baroreceptor.

　　(g)　What is triple response?

　　(h)　What is QRS Complex?

2.　Answer *any two* questions from the following:　　　　　　　5×2=10

　　(a)　Describe the method of measurement of cardiac output by 'Fick Principle'.　　5

　　(b)　What is vasa vasorum? Describe the factors regulating cerebral Circulation.　　1+4=5

　　(c)　Describe the cardiovascular changes during exercise. Name the steps of wound healing.

　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　4+1=5

　　(d)　Why SA node is called pacemaker of heart? Describe the mechanism of transmission of action potential through the functional tissues of heart.　　1+4=5

3.　Answer *any one* questions from the following:　　　　　　　10×1=10

　　(a)　Define cardiac reserve. What are the peculiarities of coronary circulation and placental circulation.　　　　　　　　　　　　　　　　　2+(4+4)=10

　　(b)　Write the mechanical events of the heart. Explain briefly the events during ventricular systole and diastole of cardiac cycle.　　　　　　2+(4+4)=10

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