

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

PHYSIOLOGY

Course ID : 12511

Course Code : SHPHY-101C-1(T)

Course Title : Cellular Basis of Physiology

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) Differentiate between bone and cartilage (one difference).
 - (b) What is intercalated disc?
 - (c) Mention any one location and one function of ciliated epithelium.
 - (d) What is crossing over?
 - (e) What do you mean by heterologous chromosome?
 - (f) Differentiate between active and passive transport.
 - (g) Why lysosome is known as suicidal bag?
 - (h) Mention any two functions of synovial fluid.

 2. Answer *any two* questions from the following: 5×2=10
 - (a) What is uniport? Briefly discuss about the structure and function of membrane transporter. 1+(2+2)=5
 - (b) State the full form of CSF. Mention the composition and functions of lymph. 1+(2+2)=5
 - (c) Site the physico-chemical basis of aging. Mention the metabolic changes due to aging. 2+3=5
 - (d) Classify tissue and write a brief account on areolar tissue.

 3. Answer *any one* question from the following: 10×1=10
 - (a) Describe the electron microscopic structure of mitochondria. Name the plasma proteins of blood and state their important functions. 5+(2+3)=10
 - (b) What are the check points of cell cycle? Briefly discuss the 1st prophase of meiotic cell division. Write the significance of meiosis. 2+5+3=10
-