U.G. 2nd Semester Examination - 2020

PHYSIOLOGY

[HONOURS]

Course Code : PHYSIOL(H)CC-T-04

Full Marks : 40 Time : $2\frac{1}{2}$ 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.

GROUP–A

1. Answer any **five** questions : 2×5=10

   a) What are steroids?

   b) Give example of one aldose and ketose.

   c) State two important functions of lipoproteins.

   d) What is Z-DNA?

   e) Why glycine is optically inactive?

   f) What do you mean by asymmetric carbon molecule?

   g) Define quarternary structure of proteins with example.

   h) What are epimers?

GROUP–B

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

   a) How the structure of RNA differ from that of a DNA? 5

   b) Classify phospholipids and state their functions. 5

   c) Describe the physiological importance of polysaccharides. 5

   d) Briefly describe the characteristic features of DNA double helical structures. 5

GROUP–C

3. Answer any **two** from the following questions: 10×2=20

   a) i) What do you mean by optical rotation?

      ii) Describe the optical isomers in monosaccharides. 3+7=10

   b) i) What are the differences between starch and cellulose.

      ii) What do you mean by a reducing sugar? Explain with example.

      iii) How will you differentiate a reducing monosaccharide from a reducing disaccharide by a single chemical test. 4+4+2=10

c) i) What are glycoproteins? State the physiological functions of glycoproteins.

ii) Explain the role of oligosaccharides chains present in glycoproteins.

(2+4)+4=10

d) i) What are prostaglandins? State the important clinical functions of prostaglandins.

ii) What are sphingolipids? Give example. What are their importance in human body?

(2+3)+(2+3)=10

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