

**U.G. 2nd Semester Examination - 2021**

**PHYSIOLOGY**

[HONOURS]

**Course Code : PHYSIOL-H-CC-T-04**

**(Chemistry of Biomolecules)**

Full Marks : 20

Time : 1 Hour

*The figures in the right-hand margin indicate marks.*

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

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

- a) Define liposome.
- b) What is saponification number?
- c) Define metalloproteins.
- d) What are non-reducing sugars?
- e) What are essential fatty acids?
- f) What are triglycerides?
- g) What are histones?
- h) What do you understand by rancidity of fat ?

2. Answer any **one** question: 5×1=5

- a) What are conjugated proteins? Discuss about different types of conjugated proteins. 2+3=5

[Turn over]

b) Discuss about various types and physiological distribution of compound lipids. 5

c) Why glucose is called reducing sugar? State the principle of Benedict's test. 5

3. Answer any **one** question : 10×1=10

a) Illustrate the double helical structure of DNA with proper diagram. What is zDNA? 8+2=10

b) What is osazone? Discuss the chemical nature of starch and dextrin . 2+8=10

c) What do you understand by amphoteric nature of proteins? Discuss about primary and secondary structure of proteins . 2+8=10

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