

GURUDAS COLLEGE
INTERNAL EXAMINATION ,2020
B.Sc (SEMESTER II) CBCS
MICROBIOLOGY
(HONOURS)
PAPER : CC 3

TIME : 2 HOURS

FULL MARKS 50

GROUP A (THEORY) 25

ANSWER ANY 5 QUESTIONS

- Q. 1 a) Give an example of aminosugar with structure. (2)
b) What do you mean by 'inversion of sugar'? (3)
- Q. 2 a) What are the carbohydrate compositions of bacterial cell wall? 2
b) Write down the structure of a heteropolysaccharides. 1
c) How will you convert arabinose to glucose? 2
- Q.3 a) What are energy rich compounds? Give examples. 3
b) Discuss the biological significance of Fats. 2
- Q.4 a) What are helix breakers? 2
b) What do you mean by secondary structure of protein? 3
- Q.5 a) What are the forces that stabilize the protein molecules ? 3
b) Define Km of the enzyme. 2
- Q.6 a) Write down the structure of cardiolipin, sphingomyelin, plasmalogen and lecithin. 4
b) Cholesterol is an amphipathic molecule – justify. 1
- Q.7 a) Define Gibb's Free energy. 2
b) How enzyme classified according to their function? 3
- Q. 8 a) Draw the Fischer's structure of D (+) Glucose. 2
b) Briefly discuss about classification and structure of fatty acid? 3

GROUP B (PRACTICAL) 15

- Q.1 . Define Buffer solution and give the example of acidic buffer and basic buffer. 5
Q.2. What is Molisch's Test of Carbohydrates? Write down the reaction. 4
Q3. What is formol titration? 3
Q4. How will you detect protein in the sample? 3

GROUP C (IA) 10

- Q 1. A mixture of myoglobin ,oxytocin and heamoglobin is subjected to gel filtration chromatography. State the reason which one will elute first? 5
Q 2. Graphically represent the titration of lysine-HCl with sodium hydroxide solution. 5

Submit your answer scripts from your own email id to infomcbasem2@gmail.com