

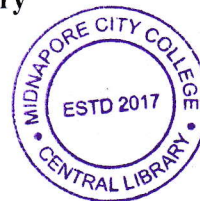
The West Bengal University of Health Sciences
M.Sc. in Medical Microbiology Part-I September, 2022 Examination

Subject : Basics of Biochemistry

Time : 3 hrs.

Full Marks : 100

Attempt all questions



1. Classify proteins. Describe the structure of α -helix. 5+5
2. Write down the composition of blood. Discuss the intrinsic pathway of blood coagulation. Give two examples of intravascular anticoagulants. 3+5+2
3. Write a short note on Pernicious anaemia. Mention the sources and functions of vitamin B12. 3+7
4. What is entropy? Mention the differences between exergonic and endergonic reaction. Describe the first and second law of thermodynamics. 2+3+5
5. Write down two differences between conjugated and unconjugated bilirubin. Mention two tests which are performed to assess liver function. Discuss the principle and clinical significance of serum ALT determination. 2+3+5
6. Discuss the oxygen-haemoglobin dissociation curve. What is haemoglobin A1c? Write a short note on Sickle-cell anaemia. 5+2+3
7. What is Alkaptonuria? Mention the causes of Albinism. Define deamination with types. 2+3+5
8. Discuss the Creatinine Clearance test. What is ERPF? Write a short note on urine analysis. 5+2+3
9. Mention two differences between innate and adaptive immunity. Discuss the structure of antibody molecule. Write down the differences between MHC class I and class II molecule. 2+5+3
10. What is t-RNA charging? Discuss the elongation process in prokaryotic translation. What is transcription unit? 3+5+2