

**The West Bengal University of Health Sciences**  
**M.D. (Biochemistry) May - June, 2022 Examination**

**Paper II****Full Marks:100****Time : 3hours**

*Attempt all questions*

1. Discuss factors and mechanism of development of non alcoholic steatohepatitis. Discuss the role of alcohol in the development of fatty liver. 5+5
2. Discuss regulation of TCA cycle. What are anaploretic reactions. What are the effect of mutation in TCA cycle. 4+2+4
3. Describe how urea cycle is linked to gluconeogenesis. Explain why ammonia is toxic for nervous system. Explain why benzoate and phenylbutyrate help in treatment in urea cycle disorders. 2+4+4
4. Discuss pathways of purine degradation. What are the biochemical factors causing gout. 4+6
5. Explain why: 5+5
  - i) Adipose tissues can be considered as endocrine organs,
  - ii) Choline and serine are effective lipotropic factors.
6. Write short notes on : 5+5
  - a) Insulin resistance
  - b) Synthetic nucleotides.
7. What are the genetic and epigenetic changes related to the development of cancer. Discuss briefly the mechanism of apoptosis and it relation to cancer development. 6+4
8. Describe the various types of dietary fat and their significance in health. How can nutritional status be assessed. 5+5
9. Discuss the complications of Diabetes Mellitus. 10
10. Describe the kinetic method of enzyme assay with a suitable example. Discuss the use and clinical importance of kinetic method and mass assay method for CK MB assay for myocardial infarction. 4+6