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**24-BC-43**

**M.Sc. IV SEMESTER [MAIN/ATKT] EXAMINATION  
JUNE - JULY 2024**

**BIOCHEMISTRY**

**Paper - III**

**[Applied Clinical Biochemistry]**

*[Max. Marks : 75]*

*[Time : 3:00 Hrs.]*

*[Min. Marks : 26]*

**Note :** Candidate should write his/her Roll Number at the prescribed space on the question paper.  
Student should not write anything on question paper.  
Attempt five questions. Each question carries an internal choice.  
Each question carries **15 marks**.

**Q. 1** Describe chemistry and mode of action of antibiotics : Penicillin and Chloramphenicol. (15 Marks)

**OR**

Write note on -

- i) Disorders related to Acidbase balance.
- ii) Chemical analysis of CSF.

**Q. 2** Describe different disorders of carbohydrate metabolism and postprandial and glucose tolerance test. (15 Marks)

**OR**

Write notes on -

- i) Biochemical changes in diabetes Mellitus.
- ii) Apolipoproteins - role in diseases.

**Q. 3** Describe in brief different kidney function tests. (15 Marks)

**OR**

Bile pigments - chemical nature and physiological significance, estimation of bilirubin.

**Q. 4** Describe process of detoxification with phase I and phase II reactions. (15 Marks)

**OR**

Describe Heme metabolism, porphyrins and porphyrias.

**P.T.O.**

**Q. 5** Write notes on **any three** -

- i) Process of Carcinogenesis.
- ii) Free radicals in Biological system.
- iii) Antioxidants.
- iv) Agents promoting carcinogenesis.
- v) Characteristics of Cancerous cells.

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