PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2023
(Third Semester)

Branch – BIOCHEMISTRY

ADVANCED CLINICAL BIOCHEMISTRY

Time: Three Hours   Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks   (5 x 1 = 5)

1   What is meant by Phlebotomy?
     (i)   Cut into vessel   (ii) Study of blood drawing
     (iii) Vein   (iv) Arterial puncture

2   Which condition can be diagnosed through gastric analysis?
     (i)   Diabetes   (ii) Stomach ulcers
     (iii) Asthma   (iv) Infections

3   Identify the reason for Grave's disease.
     (i)   Hypothyroidism   (ii) Hyperpituitarism
     (iii) Hyperinsulinism   (iv) Hyperthyroidism

4   Find the following disease that causes increase in serum LDH_1 related to LDH_2.
     (i)   Muscular dystrophy   (ii) Leukemia
     (iii) Myocardial infarction   (iv) Hepatitis

5   Which enzyme deficiency leads to Phenylketonuria?
     (i)   Homogentisate oxidase   (ii) Phenylalanine hydroxylase
     (iii) Tyrosinase   (iv) Transaminase

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks   (5 x 3 = 15)

6   a   Explain the test for Rheumatoid arthritis.
                         OR
     b   Determine erythrocyte sedimentation rate.

7   a   Discuss about the biochemical investigation of sputum.
                         OR
     b   Illustrate the procedure for the collection of urine specimen.

8   a   Outline the clinical significance of steroid hormones.
                         OR
     b   Justify the general principles involved in hormone assay.

9   a   Classify the types of fatty liver.
                         OR
     b   Elucidate the clinical significance of LDH.

10   a   Discuss on the types of Mucopolysaccharidosis.
                         OR
     b   State on Neimann pick disease.

SECTION -C (30 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** Marks $(5 \times 6 = 30)$

11 a Elucidate the procedure for collection and processing of blood.

OR

  b Interpret on the analysis and diagnostic importance of CSF.

12 a Determine the procedure for the examination of gastric contents.

OR

  b Recommend a procedure for the analysis of stone.

13 a Formulate the laboratory analysis of hyper and hypo functions of adrenal hormones.

OR

  b Elucidate on the functions and analysis of thyroid hormones.

14 a Classify the renal function test and explain about clearance test.

OR

  b Predict the enzyme patterns in hepatobiliary diseases.

15 a Categorize on the types, clinical features and complications of diabetes mellitus.

OR

  b Interpret on the risk factors, findings and management of atherosclerosis.

Z-Z-Z   END