

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018
(First Semester)

Branch – **BIOCHEMISTRY**

ANALYTICAL BIOCHEMISTRY

Time: Three Hours

Maximum: 75 Marks

SECTION -A (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

- 1 a What are secondary metabolites? How are flavanoids extracted. Discuss.
OR
b Discuss on isoelectric focusing.
- 2 a Outline the protocol for the assay of liver marker enzymes.
OR
b Give a brief note on principle and application of preparative centrifugation.
- 3 a Discuss instrumentation and application of HPLC.
OR
b What is MALDI – TOF, Q-TOF? Discuss in brief.
- 4 a Write a note on oligo nucleotide probe and its applications.
OR
b Explain RFLP technique and its applications.
- 5 a Tabulate the diagnostic application of nucleic acid probes.
OR
b How protein – DNA interactions determined? Describe.

SECTION -B (45 Marks)

Answer any **THREE** questions

ALL questions carry **EQUAL** Marks (3 x 15 = 45)

- 6 Write an essay on the principle, instrumentation and applications of 2D-gel electrophoresis.
- 7 Discuss in detail on counters and its applications.
- 8 Explain flow cytometry and cell separation with schematic representation.
- 9 Discuss in detail on PCR and microarray.
- 10 Write an elaborate note on DNA fragmentation assay.