

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)  
BSc DEGREE EXAMINATION DECEMBER 2017  
(Fifth Semester)

Branch- BIOTECHNOLOGY  
GENOMICS AND PROTEOMICS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

- 1 DNA polymorphisms.
- 2 SNP.
- 3 Craig Venter.
- 4 Orthologs & Paralogs.
- 5 Isoelectric focusing.
- 6 MALDI-TOF.
- 7 Pharmacogenomics.
- 8 Drug discovery.
- 9 Application of proteomics.
- 10 Metabolomics.

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a Write a short note on the structural organization of a genome.  
OR  
b Give a short note on pedigree analysis.
- 12 a Write a detailed note on YAC & BAC libraries.  
OR  
b Give a detailed note on shot gun sequencing.
- 13 a Comment on SAGE.  
OR  
b Give a short note on protein - protein interaction.
- 14 a Discuss the concept of genomic medicine.  
OR  
b Give a short note on drug development.
- 15 a Write a short note on analysis of microarray data.  
OR  
b Give a short note on structural proteomics.

SECTION - C (30 Marks)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Explain the physical and genetic mapping technique.
- 17 Explain HGP.
- 18 Give a detailed note on mass spectrophotometry and its uses.
- 19 Explain in detail about high throughput screening.
- 20 Write a detailed note on PCR directed protein array.