

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

/ 4 &amp; T(JI ^

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 SINES
- 2 RH mapping
- 3 BAC libraries
- 4 Orthologs and paralogs
- 5 SAGE
- 6 Peptide sequencing
- 7 Gene target
- 8 Pharmacogenomics
- 9 PCR ,
- 10 Metabolics

**SECTION - B (25 Marks)**

Answer **ALL** Questions

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

- 11 a Explain structural organization of genome.  
OR  
b Give a short note on physical and genetic mapping techniques.
- 12 a Give a detailed note on HGP.  
OR  
b Explain Hierarchical Sequencing.
- 13 a Write a short note on Isoelectric focussing.  
OR  
b Give a short note on protein-protein interaction.
- 14 a Explain concept of high throughput screening in genome for drug discovery.  
OR  
b Give a short note on drug development.
- 15 a Explain analysis of microarray data.  
\*■ OR  
b Give a short note on metabolomics.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

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

- 16 Explain Pseudogenes, gene duplication and gene annotation. t
- 17 Explain YAC and BAC libraries.
- 18 Give a detailed note on yeast two hybrid systems.
- 19 Discuss drug discovery.
- 20 Explain structural proteomics.