18BTU20

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Fifth Semester)

Branch – **BIOTECHNOLOGY**

GENOMICS AND PROTEOMICS

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 the full form of RFLP?
   a) Restriction Fragment Length Polymorphism
   b) Recognition Fragment Length Polymorphism
   c) Random Fragment Linear Polymorphism
   d) Random Fragment Linear Polymorphism

2. Which of the following is a suitable vector for the process of cloning in Human Genome Project (HGP)?
   a) PAC (Protozoal Artificial Chromosomes)
   b) FAC (Fungal Artificial Chromosomes)
   c) VAC (Viral Artificial Chromosomes)
   d) YAC (Yeast Artificial Chromosomes)

3. Sequencing of genomic DNA is included in _____
   a) Phenotypic function b) Cellular function
   c) Molecular function d) Structural genomics

4. he drugs that are used when there is a lack of natural chemical messenger is called _____
   a) antagonists b) agonists
   c) analgesics d) narcotics

5. Thermus aquatics is the source of _____.
   (a) Vent polymerase (b) Primase enzyme
   (c) Taq polymerase (d) Both a and c

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

6. (a) Explain LINEs.
   (OR)
   (b) What are single nucleotide polymorphisms?

7. (a) Write notes on procedure of the human genome project.
   (OR)
   (b) Describe the role of craig venter human genome project.

8. (a) write notes on application of mass spectrometry.
   (OR)
   (b) Give a detail notes on Proteomics.

9. (a) Write short notes on Target identification.
   (OR)
   (b) Explain genomic medicine.

10. (a) Explain microarray technology.
    (OR)
    (b) Write short notes on Structural proteomics.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

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

11. (a) Describe SINES.

(OR)

(b) Briefly explain transcriptomics.

12. (a) Differentiate YAC and BAC Vectors.

(OR)

(b) Give detail account on transcriptomics.

13. (a) Explain 2D Gel Electrophoresis.

(b) Briefly explain Sequence a Peptide.

14 (a) Briefly explain Pharmacogenomics.

(OR)

(b) Give detail notes on high-throughput screening.

15 (a) List out the Proteomics Applications.

(OR)

(b) Briefly explain peptide microarray.

Z-Z-Z END