

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION MAY 2018
(Second Semester)**

Branch -BOTANY

ADVANCED MOLECULAR BIOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION -A (30 Marks)

Answer ALL questions

ALL questions earn' EQUAL Marks (5 x 6 = 30)

- 1 a List down the chemical properties of proteins.
OR
b Explain the biological importance of proteins.
- 2 a Describe the nucleosome concept and its importance.
OR
b Give a brief account of the structure of p-DNA.
- 3 a Write short notes on : (i) C-Value paradox (ii) Satellite DNA.
OR
b Discuss the initiation of transcription with diagrams.
- 4 a Enumerate the salient features of genetic code.
OR
b Describe the elongation events of translation.
- 5 a Give an account of Britten Davidson's model of gene expression.
OR
b Explain the process of DNA methylation.

SECTION -B (45 Marks!)

Answer any THREE questions

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

- 6 Discuss the mechanism of targeting of proteins into organelles.
- 7 Give an account of the models of DNA replication with experimental evidences.
- 8 Explain the post transcriptional changes in RNA,
- 9 Discuss the various steps involved in protein synthesis.
- 10 Write an account of the regulation of gene expression in prokaryotes using operon model.

Z-Z-Z

END