14MBU11

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2018
(Third Semester)

Branch - MICROBIOLOGY

MOLECULAR BIOLOGY

Time : Three Hours Maximum : 75 Marks

SECTION-A (20 Marks!
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 x 2 = 20)

1 Nucleotides.
2 Okazaki fragments.
3 Sigma factor.
4 Define hn RNA.
5 Shine Dalgamo sequence.
6 Define code is universal.
7 Derepression.
8 Leader sequence.
9 Introns.
10 Enhancer.

SECTION - B (25 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

11 a Explain the semi conservative mode of replication.
OR
b Write short note on the different forms of DNA.

12 a Describe the events of post transcriptional modification process of r-RNA.
OR
b Write about the inhibitors of transcription.

13 a Explain the post translation modifications.
OR
b Describe the general characteristics of genetic code.

14 a Explain the concept of inducible operon.
OR
b Explain about the positive negative and attenuation regulation of tryptophan operon.

15 a Briefly explain about steroid control of gene expression.
OR
b Explain the mechanism of mRNA splicing.

SECTION - C (30 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 1 0 = 30)

16 Give a detailed account on enzymology of DNA replication.

17 Explain about the transcription process.

18 Write a detailed note on mechanism of protein synthesis.

19 Give an account on the regulation of gene expression by Lac operon.