

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

S BSc DEGREE EXAMINATION MAY 2017
(Fourth Semester)

Branch - BOTANY

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 What is biocatalyst?
- 2 Comment on disulphide bridge.
- 3 What is nucleoside?
- 4 Define transformation.
- 5 Mention the role of DNA polymerase.
- 6 Define transcription.
- 7 Comment on triplet code.
- 8 What is terminator codon?
- 9 What is Lac operon?
- 10 What is idiogram?

SECTION - B (25 Marks!

Answer ALL Questions

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

- 11 a Enumerate the biological role of proteins.
OR
b Give the outline classification of protein.
- 12 a Mention the components of nucleic acids.
OR
b Write notes on different types of RNA.
- 13 a Explain different types of DNA replication in brief.
OR
b Write notes on promoter, enhancer, TATA Box.
- 14 a Explain the various properties of genetic code.
OR
b Describe post transcriptional changes in mRNA.
- 15 a Write about the ultra structure of chromosome.
OR
b Give an account on any two special types of chromosomes.

SECTION - C (30 Marks!

Answer any THREE Questions

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

- 16 Describe the various* structural levels of protein organisation.
- 17 Explain the double helical structure of DNA.
- 18 Explain about the fine structure of prokaryotic gene.
- 19 Give an account on the mechanism of protein synthesis.
- 20 Write an essay on gene regulation in Eukaryotes.