(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2017

(Third Semester)

Branch - **BIOCHEMISTRY**

MOLECULAR BIOLOGY

Time : Three Hours Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10x2 = 20)

1 Define transforming Principle.
2 Okazaki fragments.
3 Genetic code.
4 TATA Box.
5 Role of Amino acyl tRNA synthase.
6 Prokaryotic ribosome composition.
7 Define Operon.
8 What is excision repair?
9 Frame shift mutation.
10 Transposons.

SECTION - B (25 Marks)

Answer **ALL** Questions

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

11 a Explain briefly Griffith's experiment to prove DNA as the genetic material.

OR

b Write a short note on the role of various enzymes involved in prokaryotic replication.

12 a Brief on deciphering of genetic code.

OR

b What is transcription? Write briefly on eukaryotic transcription process.

13 a Explain the inhibitors of protein synthesis.

OR

b Write an account on post translational modifications of proteins.

14 a What is SOS response? Explain.

OR

b Write briefly on various agents involved in DNA damage.

15 a What is Recombination? Explain Holliday model of recombination.

OR

b Explain how transposons were discovered in plants.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

16 Write a detailed account on eukaryotic replication process.

17 Explain prokaryotic mRNA synthesis in detail.

18 What is translation? Explain translation process in prokaryotes.

19 Write a detailed account on Lac operon.

20 Explain the various types of mutations in detail.

Z-Z-Z END