D 6789 (Pages : 2) Name

Reg. **No**.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2016

(CUCSS)

Microbiology

MB 3C 10—MOLECULAR BIOLOGY

Time : Three Hours Maximum 36 Weightage

Section A

I. Write short answers to the following. Answer *all* questions :

1 Ribozyme.

2 RNA editing.

3 RB gene.

4 Tn5Transposon.

5 RNA interference.

6 Molecular markers.

7 DNA hypochromicity.

8 Okazaki fragment.

9 Operon.

10 Protooncogenes.

11 Adapters and Linkers.

12 C-Value paradox.

13 Antisense RNA.

14 SOS repair.

(14 x 1 = 14 weightage)

II. Write short paragraph answers to the following. Answer any *seven* question :

15 Trp operon.

16 Eukaryotic transcriptional factors.

17 Features of genetic code.

18 Bacteriophage replication.

19 DNA recombination.

Turn over

20 Mechanism of transposition.

21 Rho dependent termination.

22 DNA polymerases of prokaryotes.

23 Specialized tranduction.

24 Rolling circle replication.

(7 x 2 = 14 weightage)

III. Explain the following. Answer any *two* :

25 Write an essay on Oncogenes and Tumour suppressor genes in human.

26 Describe the mechanism of DNA replication. What are the enzymes necessary during this process?

27 Describe the molecular mechanism of transcription in eukaryotes and discuss how it differ from prokaryotes.

28 Explain the structure, positive and negative regulation of Lac operon.

(4 x 2 = 8 weightage)