

C 63079

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Name.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, JUNE 2019

(CUCSS)

Microbiology

MB 2C 05—MICROBIAL GENETICS

(2010 Admissions)

Time : Three Hours

Maximum : 36 Weightage

I. Answer *all* questions. Write briefly on the following. Each question carries 1 Weightage :

- 1 Theta replication.
- 2 Thymine dimmers.
- 3 Ames test.
- 4 Recombination mapping.
- 5 cl repressor.
- 6 CRP.
- 7 Simple transposons.
- 8 MCS.
- 9 Insertional inactivation.
- 10 Reverse transcriptase.
- 11 Microsatellites.
- 12 Cosmids.
- 13 Lambda replacement vectors.
- 14 RAPD.

(14 x 1 = 14 weightage)

II. Write notes in *one paragraph* on any *seven* of the following. Each question carries 2 weightage :

- 15 Type II restriction enzymes.
- 16 Phagemids.
- 17 Regulation of *lac* operon.
- 18 DNA fingerprinting.
- 19 Coupled transcription and translation.

Turn over

20 Site specific integration of lambda.

21 Types of gene mutation.

22 pUC vectors.

23 E. coli DNA polymerases.

24 Prokaryotic genome organization.

(7 x 2 = 14 weightage)

III. Answer any *two* of the following. Each question carries 4 weightage :

25 What are the genetransfer mechanisms in bacteria ?

26 What are the applications of PCR ?

27 Classify the different types of transposons.

(2 x 4 = 8 weightage)