

C 4725

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Name.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, JUNE 2016

(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 Auxotrophs.
- 2 Primase.
- 3 Helicase.
- 4 Ligase.
- 5 Linker DNA.
- 6 Electroporation.
- 7 Tandem duplications.
- 8 Artificial chromosome vectors.
- 9 Sex pili.
- 10 c DNA library.
- 11 Generalised transduction.
- 12 Reverse transcriptase.
- 13 Catabolite repression.
- 14 Operon.

(14 x 1= 14 weightage)

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

- 15 Cloning vectors.
- 16 Heterologous protein expression in prokaryotes.
- 17 Prokaryotic DNA polymerases.
- 18 Lysogenic cycle.
- 19 Biological significance of plasmids.

Turn over

20 Recombinant selection and screening.

21 RAPD.

22 AMES test.

23 RFLP.

24 Griffith's experiment.

(7 x 2 = 14 weightage)

III. Answer any *two* questions. Each question carries 4 weightage :

25 Describe construction of genetic map in bacteria.

26 Describe PCR.

27 Discuss DNA repair mechanisms.

(2 x 4 = 8 weightage)