PG Odd Semester (CBCS) Exam., December—2017

MICROBIOLOGY

(1st Semester)

Course No. : MIB CC–101

(General Microbiology)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. In brief, discuss the contributions made by Joseph Lister and Francesco Redi in the field of microbiology. 14

2. *(a)* In detail, discuss and write about the comparison of three cellular domains. 7

(b) Write a short note on prochlorons. 7

UNIT—II

3. In detail, write about the protoplasmic structure, pigments and photosynthetic process in cyanobacteria. 14

4. Differentiate among glycocalyx, capsule and slime layer. In detail, write about the movement of flagella, fimbriae and pilli. 6+8=14

UNIT—III

5. Write short notes on (any *two*) : 7×2=14

(a) Carboxysomes

(b) Megnatosomes

(c) Phycobilisomes

6. Differentiate between plasmid and vector. In detail, write about the various types of plasmids and their functions. 14

UNIT—IV

7. *(a)* In detail, discuss the major contributions to culture media by Louis Pasteur and Robert Koch. 7

(b) Write short notes on : 3½×2=7

(i) Indicator media

(ii) Transport media

8. In detail, discuss the various anaerobic culture methods for culturing anaerobic organisms in microbiology. 14

UNIT—V

9. Differentiate among sterilization, disinfection and antiseptics. In detail, discuss the physical and chemical methods of sterilization. 14

10. Write short notes on : 7×2=14

(a) Diauxic growth curve

(b) Applications of extremophiles

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