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**The H.N.S.B.Ltd. Science College, Himatnagar**  
**Internal Examination September-2017**

**B.Sc. Semester: V**  
**Marks: 40**

**Subject: Microbiology**  
**Paper No.: MB: 502**

**Date : 12 /09 /2017**  
**Time : 2:00 to 3:30**

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**PART: A Answer any Five of Following.**

**05**

1. The ability of cell to take up DNA fragment from surrounding environment is called as  
(A)Fitness. (B) Fecundity. (C) Competence. (D) Hfr.
2. The name of process in which plasmid can be eliminated from a cell is \_\_\_\_\_.  
(A)Eliminating (B) Altering (C) Releasing. (D) Curing
3. In grifith's experiment a mixture of heat killed s-type & living R-type bacteria were injected into mouse it would be expected to \_\_\_\_\_.  
(A)Kill mouse (B) mouse will survive (C) no effect on it (D) cause transfection
4. Process of gene transfer via bacteriophage is known as  
(A)Transformation (B) conjngation (C) transduction (D)None of this
5. Phage which involve lysogenic cycle is also known as \_\_\_\_\_.  
(A)Temperature phage (B) virulent phage (C) A and B both (D) none of this
6. Protein involved in recombination \_\_\_\_\_.  
(A)Rec A (B) Rec Z (C) A and B both (D) none of this
7. Mapping by co – transduction is based on \_\_\_\_\_.  
(A)Frequency of linked (B) crossing over(C) location of gene (D) A and C both

**PART: B Answer any Five of Following.**

**05**

8. Define: Plasmid.
9. Define: Transformation.

10. Give function of Rec A protein.
11. Define: Generalized transduction.
12. Full name : HFTP
13. Define: Competence.
14. Define: Conjugation.

**PART: C Answer any Three of Following.**

**06**

15. Draw diagram of lytic cycle.
16. Define plasmid. Enlist types of plasmid.
17. Explain contrasduction and linkage.
18. How to detect transformation of bacterial cell, explain briefly.

**PART : D Answer any Two of Following.**

**12**

19. Explain general principle of recombination by holiday model.
20. Factor affecting competence.
21. Defective transducing phage.
22. Define : (1) F- plasmid (2) R- plasmid (3) Colisinogenic plasmid
23. Types of bacterial transposon.

**PART : E Answer any Two of Following.**

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24. Brief note on properties of plasmid.
25. Explain Griffith experiment of transformation. OR  
Explain experiment which proves that DNA is genetic material which transformed in process of transformation.
26. Specialized transduction explain with figure.