

May - 2014

**BLDE UNIVERSITY**

**PRE-PH.D COURSE WORK EXAMINATION**

[Time :1 ½ Hours]

[Max.Marks : 50]

**Paper – II BACKGROUND PAPER (MICROBIOLOGY)**

**QP CODE : 6011**

**TOPIC: Detection of metallo- $\beta$ -lactamases by phenotypic and genotypic methods in *Pseudomonas aeruginosa* isolated from various clinical specimens in Shri B.M.Patil Medical College, Vijaypur.**

**I. Answer the following**

**5x2=10 marks**

1. DNA extraction methods.
2. Laboratory safety measures.
3. Time kill curve technique.
4. Chennai declaration.
5. Serine Carbapenem resistance.

**II. Answer ANY FOUR of the following**

**4x5=20 marks**

6. Describe phenotypic expression of antimicrobial resistance by disc diffusion method.
7. Discuss the necessity of hospital antibiogram.
8. New Delhi MBL
9. Methods of detection of M.I.C.
10. Describe various categories of biomedical wastes.

**III. Answer ANY TWO of the following**

**2x10=20 marks**

11. Describe Morphology, Cultural characteristics and pathogenicity of *Pseudomonas aeruginosa*. Add a note on typing of *Pseudomonas aeruginosa* isolates. (1+2+3+4)
12. Discuss critically  $\beta$ - lactam group of antibiotics. Describe in detail various mechanisms of drug resistance to  $\beta$ - lactams. (4+6)
13. Discuss quality control and quality assurance in drug susceptibility testing. How it affects research outcome? (4+4+2)