

**QP Code: 101109**

**Reg. No.:**.....

**PG Degree Supplementary Examinations in Microbiology (MD)  
October 2018**

**Paper I – General Microbiology and Immunology**

**Time: 3 hrs**

**Max marks:100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essay:**

**(20)**

1. Define toxin. Discuss the mechanisms of action of toxins produced by bacteria.  
Add a note on therapeutic uses of bacterial toxins

**Short essays:**

**(8x10=80)**

2. Enzymatic mechanism of antibiotic resistance.
3. Quality assurance & quality control in microbiology
4. Antigen presenting cells.
5. Immunologic basis of graft rejection.
6. Type II hypersensitivity reaction
7. Tumour antigens
8. Organization of central sterile supply department.
9. Genetic engineering.

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