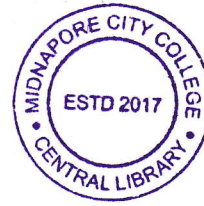


**The West Bengal University of Health Sciences**  
**M.Sc. in Medical Microbiology Part-II July-August, 2020**  
**Examination**  
**(Session-2016-2019)**

**Subject : General Microbiology and Immunology**  
**Paper : I**



**Full Marks : 100**  
**Time : 3 hrs.**

*Attempt all questions*

1. Describe the most efficient method of transfer of genetic material among bacteria. Explain HFR strain, F' and sexduction with their importance. 4+2+2+2
2. Discuss briefly about bacterial spore. 10
3. Write short note on evolution, structure and significance of pathogenicity island. 10
4. Discuss mechanism of activation of complement cascade. Write importance of each pathway. 4+6
5. Discuss components and role of innate immunity for protection of the human from microbes. 10
6. Write short notes on : 5+5
  - a) Superantigen.
  - b) IgM.
7. Explain mechanism of Type III hypersensitivity reaction with examples. 10
8. Discuss in brief : Gaseous sterilization along with sterilization indicators/control. 10
9. Write short notes on : 5+5
  - a) Biofilm.
  - b) Intrinsic drug resistance.
10. Briefly state the role of microscopy in diagnosis of the microbial aetiology. 10