#### PRE - Ph.D. COURSE WORK EXAMINATION

Paper II: Background Paper (Microbiology)

Q. P. Code: 6012

Duration: 1 1/2 Hrs

Max Marks: 50

Answer the following

 $5 \times 2 = 10 \text{ Marks}$ 

- 1. Factors Leading to reemergence of Dengue fever
- 2. Integrated Disease surveillance programme
- 3. Standard Laboratory practices
- 4. Biosafety Cabinet
- 5. Vaccine for Dengue fever

II Answer ANY FOUR of the following

 $4 \times 5 = 20 \text{ Marks}$ 

- 6. Ig M Capture ELISA
- 7. Real time PCR
- 8. Pulsed field Gel electrophoresis
- 9. Discuss the role of NSI in the diagnosis of Dengue fever
- 10. Haemagglutination Inhibition

III Answer ANY TWO of the following

- 11. Enumerate emerging and reemerging viral diseases. How do you investigate an outbreak of Dengue fever?
- 12. Classify vector borne diseases. Discuss the Pathogenesis and Lab diagnosis of Dengue Haemorrhagic fever.
- 13. Discuss briefly Laboratory diagnosis of viral infections.

## PRE - Ph.D. COURSE WORK EXAMINATION

Paper II: Background Paper (Microbiology)

Q. P. Code: 6013

Duration: 1 1/2 Hrs

Max Marks: 50

I Answer the following

 $5 \times 2 = 10 \text{ Marks}$ 

- 1. Distinguish between Rickettsia and viruses
- 2. Biological safety Cabinet
- 3. Rat flea
- 4. Universal safety Precautions
- 5. Paired serum sample

II Answer ANY FOUR of the following

 $4 \times 5 = 20 \text{ Marks}$ 

- 6. Real time PCR
- 7. Ig M Capture Elisa
- 8. Health care associated infections
- 9. Indian tick typhus
- 10. Shipping of infectious material

III Answer ANY TWO of the following

- 11. Enumerate the vector borne diseases. Discuss the Pathogenesis and laboratory diagnosis of scrub typhus.
- 12. Discuss utility of Weil -Felix test in the diagnosis of Rickettsial diseases.
- 13. Discuss the role of Rickettsia as agents of bioterrorism.

#### PRE – Ph.D. COURSE WORK EXAMINATION

## Paper II: Background Paper (Microbiology)

Q. P. Code: 6014

Duration: 1 1/2 Hrs

Max Marks: 50

I Answer the following

 $5 \times 2 = 10 \text{ Marks}$ 

- 1. Mcfarland standards
- 2. Amp C beta lactamases
- 3. Shipping of infectious material
- 4. Universal safety precautions
- 5. Quorum sensing

II Answer ANY FOUR of the following

 $4 \times 5 = 20 \text{ Marks}$ 

- 6. Virulence factors of Esch. Coli contributing to uropathogenicity
- 7. Liposome mediated Agglutination
- 8. Minimal inhibitory concentration
- 9. Pathogenicity islands
- 10. Quality control of anti microbial sensitivity testing

III Answer ANY TWO of the following

- 11. Discuss the role and significance of Biofilms in infectious disease.
- 12. Describe potential virulence mechanisms of Biofilms.
- 13. Discuss the origin of Biofilms in historical perspective as a measure of microbial survival.

# PRE - Ph.D. COURSE WORK EXAMINATION

Paper II: Background Paper (Microbiology)

Q. P. Code: 6011

Duration: 1 1/2 Hrs

Max Marks: 50

 $5 \times 2 = 10 \text{ Marks}$ 

- I Answer the following
  - 1. Integrated Disease surveillance programme
  - 2. Inducible clindamycin resistance in S.aureus
  - 3. Bio safety cabinet
  - 4. Standard laboratory practices
  - 5. Pathogenicity islands
- II Answer ANY FOUR of the following

 $4 \times 5 = 20 \text{ Marks}$ 

- 6. Nucleic acid based Hybridization techniques
- 7. Liposome mediated Agglutination
- 8. Pulsed field Gel electrophoresis
- 9. Hospital waste management
- 10. Quality control of antibiotic sensitivity testing
- III Answer ANY TWO of the following

- 11. Discuss the Virulence markers of S. aureus.
- 12. How will you investigate an outbreak of MRSA infection in the hospital?
- 13. Discuss the role of antibiotic policy in the hospital to overcome drug resistance in S. aureus.