May - 2013

# BLDE UNIVERSITY

## PRE – Ph.D. COURSE WORK EXAMINATION

### Paper II: Background Paper (Microbiology)

### Q. P. Code: 6011

**Duration : 1 ½ Hrs** **Max Marks : 50**

I Answer the following 5 x 2 = 10 Marks

1. Mcfarland standards
2. Amp C beta lactamases
3. Shipping of infectious material
4. Carriage of S.aureus (MRSA)
5. Quorum sensing

II Answer **ANY FOUR** of the following 4 x 5 = 20 Marks

6. Pathogenicity island
7. E test
8. Quality control of antibiotic sensitivity testing
9. Biological safety cabinet
10. Universal safety precautions

III Answer **ANY TWO** of the following 2 x 10 = 20 Marks

11. Discuss the measures to combat antibiotic resistance in bacteria.
12. How will you investigate an outbreak of MRSA infection in the hospital?
13. Discuss the role of Biofilms in facilitating gene transfer and its expression.

Nov. 2013

# BLDE UNIVERSITY

## PRE –Ph.D COURSE WORK EXAMINATION

## PAPER – II : BACKGROUND PAPER ( MICROBIOLOGY)

## QP CODE: 6011

Duration : 1 ½ Hrs  Max.Marks : 50

I. Answer the following  5x2=10 Marks

1. Hospital Infection Society of India
2. Antiviral activity of copper
3. Copper corrosion
4. National Nosocomial Surveillance system
5. Peracetic acid

II. Answer ANY FOUR of the following  4x5=20 Marks

6. Antimicrobial properties of copper against carbapenamase producing bacteria.
7. Guidelines for Use and Care of Antimicrobial Copper Products.
8. Microbiological monitoring of Operation Rooms.
9. Health care associated infections-current Indian prospect.
10. Impregnated medical devices in infection control

III. Answer ANY Two of the following  2x10=20 Marks

11. Discuss in detail the role of copper surfaces in infection control. Add a note on various copper alloys with antimicrobial properties. (7+3=10)
12. Discuss in detail methods and strategies in surveillance of hospital acquired infections. Add a note on application of molecular typing methods investigation of outbreaks. (7+3=10)
13. Discuss in detail common Hospital infections in Intensive care units. Add a note on bundle of care - approach for prevention of infection in ICU's. (7+3=10)

Nov. 2013

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## PRE –Ph.D COURSE WORK EXAMINATION

## PAPER – II : BACKGROUND PAPER ( MICROBIOLOGY)

## QP CODE: 6011

Duration : 1 ½ Hrs

Max.Marks : 50

I. Answer the following 5 x 2= 10 Marks

1. Funding agencies for malaria research
2. Estimation of parasitaemia
3. Halofantrine
4. Classify antimalarial drug resistance.
5. Concentration methods for hemoparasites.

II. Answer ANY FOUR of the following 4 x 5 = 20 Marks

6. Prevention of drug resistance in malaria.
7. Milestones in History of Malaria.
8. Genetic Diversity in Malarial parasites.
9. Rapid Diagnostic Tests for Malaria
10. Liquid biomedical waste management.

III. Answer ANY TWO of the following 2 x 10 = 20 Marks

11. Describe in detail mechanisms of Chloroquine resistance in malarial parasites. Add a note on structure and mutations in Pfcrt transporter. (7+3=10)
12. Describe in detail Immune response in malaria. Add a note on recent research trends in malaria vaccine. (5+5=10)
13. Describe in detail methods of detection of drug resistance in malaria. Add a note on recent molecular techniques. (7+3=10)

Nov-2013

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## PRE –Ph.D COURSE WORK EXAMINATION

## PAPER – II : BACKGROUND PAPER ( MICROBIOLOGY)

## QP CODE: 6011

Duration : 1 ½ Hrs

Max.Marks : 50

I. Answer the following 5X2=10 Marks

1. Modified Kinyoun's Acid fast staining Method.
2. Sporozoa.
3. Formol-Ether concentration technique.
4. Disinfection of HIV
5. PEP in HIV/AIDS

II. Answer ANY **FOUR** of the following 4X5=20Marks

6. Autoclave
7. Strategies for HIV diagnosis as per NACO guidelines.
8. Laboratory markers associated with progression of HIV infection.
9. Universal safety precautions.
10. Quality control in parasitological diagnosis.

III Answer ANY **TWO** of the following 2X10=20Marks

11. Discuss morphology, life cycle, laboratory diagnosis of Cryptosporidium parvum. (3+3+4)
12. Enumerate categories of biomedical wastes with examples and describe biomedical waste management. (4+6)
13. Describe morphology, pathogenesis, epidemiology and laboratory diagnosis of HIV/AIDS. (2+2+2+4)