

DIRECTOR OF HEALTH, MEDICAL SERVICES AND MEDICAL EDUCATION

GUJARAT STATE

LABORATORY AND X-RAY TECHNICIANS TRAINING COURSE EXAMINATION-2015

MICROBIOLOGY

DATE:14-08-2015

TOTAL MARKS: 50

TIME:-02 HOURS

1. Answer any **THREE** 18
  - a. Describe pathogenicity and laboratory diagnosis of Mycobacterium tuberculosis 12e
  - (b) What are the indications of blood culture and write its procedure? Discuss the laboratory diagnosis of enteric fever.
  - c. Write classification & general properties of viruses 157
  - d. Define biomedical waste. Write classification and management of biomedical waste. 243
2. Write short notes on any **FOUR** 20
  - a. Enriched media 23
  - b. Laboratory diagnosis of Hepatitis B 17e
  - c. Laboratory diagnosis of P. falciparum malaria. 216
  - (d) Chemical disinfectants
  - e. Universal work precautions. 243
3. Answer any **THREE** 06
  - a. Difference between active & passive immunity. 35
  - (b) Robert Koch. 4
  - c. Laboratory diagnosis of round worm 217
  - (d) ELISA test.
4. Answer in 1-2 sentences. Any **SIX**
  - a. Name two methods of physical sterilisation *dry heat, Moist heat, sunlight*
  - b. What is differential staining and its uses. - *Gram, Ziehl-Neelsen*
  - c. Name any two viral vaccines. *HbsAg, oral polio, mumps, Rubella*
  - d. Name causative organism of Cholera & Diphtheria. *Vibrio cholerae, Corynebacterium*
  - e. Name any two acid fast bacilli *M. T, M. burii, M. fortuitum*
  - f. Name any two bacterial sexually transmitted diseases. *Syphilis, Gonorrhoea, Chlamydia*
  - g. Name any two transfusion transmitted infection *HbsAg, HIV, HBV, Hepatitis*
  - h. Name two parasites causing anaemia. *Hook worm, Ring worm*

Gram stain  
Acid fast stain  
use  
Differential staining  
Syphilis, gonorrhoea

→ simple / mono staining → meth. blue  
→ negative staining → India ink stain  
→ silver impregnation stain → use for delicate bacteria  
→ leptospira bacteria, spirochetes  
Special stain → Albert's, Ziehl or Acid fast