



**Que. 2 Write notes (any four)**

**(4 × 7 = 28 Marks)**

- a. Etio-pathogenesis, laboratory diagnosis and complication in a man with necrotic limb wound that crepitates following a road traffic accident.
- b. Fever with rash in a child: four causative organisms and pathogenesis, laboratory diagnosis and prevention of any one
- c. Hospital acquired Infections: types, risk factors and preventive measures.
- d. Pathogenesis and Laboratory Diagnosis of Madura foot.
- e. COVID 19: Laboratory Diagnosis and Vaccines.

**Que. 3 Multiple Choice Questions.**

**(10 Marks)**

1. Which of the following statement is correct about lepromatous leprosy:
  - a. Multibacillary
  - b. CMI is normal
  - c. Langerhans cells are found
  - d. Positive lepromin test
2. Survival of *M. tuberculosis* inside the macrophages is due to:
  - a. Inhibition of entry into the host cell
  - b. Inhibition of phagosome-lysosome fusion
  - c. Inhibition of entry into the phagosome
  - d. Inhibits degradation by lysosomal enzymes
3. Ecthyma gangrenosum is caused by:
  - a. *Pseudomonas*
  - b. *Brucella*
  - c. *Bordetella*
  - d. *H. influenzae*
4. Which of the following protein is used for Serotyping of *Streptococcus pyogenes* :
  - a. M protein
  - b. T protein
  - c. R protein
  - d. Carbohydrate antigen
5. CAMP test is useful in identification of:
  - a. *S. pyogenes*
  - b. *S. agalactiae*
  - c. Viridans streptococci
  - d. *S. pneumoniae*
6. Gram-stain morphology of *Bacillus anthracis* is:
  - a. Tennis racket appearance
  - b. Bamboo stick appearance
  - c. Drum stick appearance
  - d. Spectacle glass appearance

7. Which viral infection is responsible for Subacute Sclerosing Pan Encephalitis (SSPE):
  - a. Mumps
  - b. Measles
  - c. Rubella
  - d. Influenza
8. Which of the following is vector for leishmaniasis:
  - a. Sandfly
  - b. Reduvid bug
  - c. Tsetse fly
  - d. Anopheles mosquito
9. Which of the following fungus **DOES NOT** infect nail:
  - a. Trichophyton
  - b. Microsporum
  - c. Epidermophyton
  - d. Candida albicans
10. Rhinosporidiosis is characterized by all of the following **EXCEPT-**
  - a. It is caused by a fungus.
  - b. The fungus is usually found in dirty waters.
  - c. It manifests as polyps that bleed easily.
  - d. It can be cultured easily in laboratory.

**Section - IIB**  
**(CNS, Genitourinary, HAI, Miscellaneous)**

- Que. 1** A 25 yr. old man presented with painless ulcer with hard base on penis. He had a history of sex with multiple partners. On examination, inguinal lymph nodes were enlarged, discrete, non-tender and rubbery. The blood specimen was collected and sent to the laboratory for serological test. **(12 marks)**
- a. What is the clinical diagnosis and possible causative agent? Justify.
  - b. Explain the pathogenesis and laboratory diagnosis of this condition.
  - c. Enlist three possible etiological agents in case the man had multiple painful genital ulcers.
- Que. 2 Write notes. (any four)** **(4 × 7 = 28 marks)**
- a. Laboratory Diagnosis, treatment and prevention of tetanus.
  - b. Encephalitis: four causative agents and pathogenesis with laboratory diagnosis of anyone.
  - c. Antimicrobial stewardship program: concept and different strategies used in the program.
  - d. Non-tuberculosis Mycobacterium: classification and significance as human pathogen.
  - e. Consent: Definition, types and its importance in autonomy.

**Que. 3 Multiple Choice Questions.**

**(10 Marks)**

1. Which of the following is the causative agent of chancroid?
  - a. Haemophilus ducreyi
  - b. Klebsiella granulomatis
  - c. Mycoplasma hominis
  - d. Candida albicans
  
2. Which of the following is **NOT** vaccine-derived poliovirus (VDPVs):
  - a. mVDPV
  - b. cVDPV
  - c. iVDPV
  - d. VDPV
  
3. Which of the following fungi are associated with zygomycosis?
  - a. Mucor
  - b. Rhizopus
  - c. Absidia
  - d. All of the above
  
4. Which of the following pigment is diagnostic of Pseudomonas aeruginosa?
  - a. Pyocyanin
  - b. Pyorubin
  - c. Pyomelanin
  - d. Fluorescein
  
5. Which culture medium is preferred for processing of urine specimens?
  - a. TCBS agar
  - b. CLED agar
  - c. Chocolate agar
  - d. XLD agar
  
6. Which of the following depicts the decreasing order of risk of transmission following occupational exposure?
  - a. HIV>HBV>HCV
  - b. HBV>HCV>HIV
  - c. HBV>HIV>HCV
  - d. HCV>HBV>HIV
  
7. Which of the following **IS NOT USED** as indicator organism of fecal contamination of water:
  - a. Fecal E. coli
  - b. Fecal streptococci
  - c. Pseudomonas
  - d. Vibrio cholerae
  
8. The most effective way of preventing tetanus is:
  - a. Hyperbaric oxygen
  - b. Tetanus toxoid
  - c. Antibiotics
  - d. surgical debridement and toilet
  
9. Neonatal meningitis acquired through contaminated/ colonized/infected birth canal is due to:
  - a. S. pyogenes
  - b. Viridans streptococci
  - c. S. agalactiae
  - d. S. pneumoniae
  
10. Serotyping and serosubtyping of meningococci are based on:
  - a. Outer membrane proteins
  - b. Endotoxin
  - c. Capsular polysaccharide
  - d. Transferrin binding proteins