

24-01-2022

01231 A3+01231 A4

II-MBBS

Second M.B.B.S. (Main) Examination (New Scheme)

January - 2022

MICROBIOLOGY

Paper-Second

Time: Three Hours

Maximum Marks: 100

Attempt all questions in both sections

(Use separate answer book for each section)

**Section-A****1. Fill in the blanks:**

6 x 1 = 06

- a) \_\_\_\_\_ causes swimming pool granuloma.
- b) \_\_\_\_\_ is a double stranded RNA virus associated with diarrhea to infants.
- c) Tenofovir is used in treatment of \_\_\_\_\_ Hepatitis virus.
- d) \_\_\_\_\_ Virus is responsible for bronchiolitis in infants and young adults.
- e) \_\_\_\_\_ is the causative agent of meningitis which is an Gram positive short bacilli, often confused with diphtheroids.
- f) Painful, multiple, bilateral, tiny vesicular ulcers with incubation period of 2-7 days is found in \_\_\_\_\_

**2. Answer the followings (Multiple Choice Questions):**

4 x 1 = 04

- i) Which of the following can cause acute diarrhea through inflammatory changes in the intestine induced by cytokine release?
    - a) Cholera                      b) EHEC                      c) Staphylococcus aureus                      d) All
  - ii) Nakayama strain is used for which vaccine-
    - a) Typhoid                      b) Chickenpox                      c) Japanese encephalitis                      d) Yellow fever
  - iii) The following is not true of candida albicans-
    - a) Yeast like fungus                      b) Forms Chlamydospores
    - c) Blastomeres seen in isolates                      d) Causes meningitis in immuno-compromised
  - iv) Mycobacterium kansasii belongs to-
    - a) Scotochromogens                      b) Photochromogens
    - c) Rapid growers                      d) Non-Photochromogens
3. A one-year-old infant was brought to emergency with acute onset of fever, pain and dyspnoea associated with pleural involvement. Direct examination of sputum shows plenty of pus cells, and gram-negative pleomorphic bacilli.

- a) What is clinical diagnosis of this condition and the most likely etiological agent? 02
- b) What is the clinical spectrum of the organism? 03
- c) Write lab diagnosis of the causative organism. 07
- d) Treatment and Immuno-Prophylaxis against the causative organism. 03
4. Write short notes on (Any five): 5 x 2 = 10
- a) Enumerate Halophilic vibrios.
- b) Enumerate tissue nematodes.
- c) Enumerate virus causing hepatitis.
- d) Non-gonococcal urethritis.
- e) Filovirus infection.
- f) Congenital toxoplasmosis.
5. Explain briefly (Any three): 3 x 5 = 15
- a) Enumerate fungal infections of skin and soft tissue with lab diagnosis of any one.
- b) Enumerate parasitic infection of central nervous system with lab diagnosis of any one.
- c) Oncogenic viruses.
- d) Lab diagnosis of COVID-19 infection.

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### Section-B

6. Enumerate agents causing acute diarrhea. Write predisposing factors, lab diagnosis and treatment as per severity of acute diarrhea. 20
7. Explain briefly (Any five): 5 x 2 = 10
- a) Eggs of Schistosoma species.
- b) Lab diagnosis of bacterial vaginosis.
- c) Enumerate agents associated with viral meningitis and myelitis.
- d) Bacillus cereus infection.
- e) Enumerate intestinal nematodes.
- f) Enumerate agents of atypical pneumonia.
8. Explain briefly (Any four): 4 x 5 = 20
- a) Amoebic liver abscess.
- b) Lab diagnosis of leprosy.
- c) Antibiotic associated diarrhea.
- d) Zygomycosis.
- e) Lab diagnosis of Nocardiosis.