

2019 Scheme

Q.P. Code: 216001

Reg. no.:

Second Professional MBBS Degree Supplementary Examinations
December 2025

Microbiology Paper II

Time: 3 Hours

Total Marks: 100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers
- Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

1. Multiple Choice Questions

(20x1=20)

The MCQ questions (Q.No. i to Q.No. xx) shall be answered only in the OMR sheet provided at page No. 51 of the answer book (the inner portion of the back cover page (PART III)). Responses for MCQs marked in any other part/page of the answer book will not be valued. For marking the correct responses use X mark only

Read the following clinical history and select the most appropriate response for questions i - v

A 14-year-old unimmunised boy was presented to the medical OPD with c/o fever, malaise and difficulty in swallowing. On examination a greyish white patch was seen in the pharynx and it bleeds on touch

- The probable clinical diagnosis is
 - Mumps
 - Measles
 - Herpes
 - Diphtheria
- The pathogenicity of this organism is due to
 - Exotoxin
 - Invasiveness
 - Endotoxin
 - All of the above
- Which of the following is the culture media specifically used for isolating this organism
 - LJ medium
 - Sabouraud's Dextrose Agar
 - Brain Heart Infusion Broth
 - Tellurite Blood agar
- Mention the protective titre following vaccination for this disease
 - >0.01 IU/ml
 - >0.1 IU/ml
 - 1 IU/ml
 - 10 IU/ml
- What is the mode of transmission of this disease
 - Skin contact
 - Blood transfusion
 - Respiratory droplets
 - Mother to child

Question numbers vi - x are multiple response type questions. Read the statements & mark the answers appropriately.

- Streptococcus pneumoniae* shows positive to
 - Quellung reaction
 - Inulin fermentation
 - Optochin sensitivity
 - Bacitracin sensitivity
 - 1, 2, 3 are correct
 - 1, 2, 3, 4 are correct
 - 2, 3, 4 are correct
 - 1, 3, 4 are correct
- Clinically important cestodes
 - T.solium
 - H.nana
 - T.trichiora
 - D.latum
 - 2, 3 are correct
 - 1, 2, 4 are correct
 - 2, 3, 4 are correct
 - 1, 2 are correct
- Non neural Rabies vaccines are
 - Semple vaccine
 - BPL vaccine
 - Duck embryo vaccine
 - Tissue culture vaccines
 - 3, 4 are correct
 - 2, 4 are correct
 - 1, 2 are correct
 - 1, 2, 3 are correct
- CSF features characteristic of pyogenic meningitis includes
 - Increased lymphocyte count (80-90%)
 - Sugar <40 mg%
 - Protein increased 200-600 mg%
 - CSF pressure - highly increased
 - 1, 2, 3, 4 are correct
 - 1, 3, 4 are correct
 - 1, 2, 4 are correct
 - 2, 3, 4 are correct
- Examples of mycotoxins are
 - Aflatoxin
 - Ergot alkaloids
 - Ochratoxin
 - Muscarine
 - 1, 2, 3, 4 are correct
 - 1, 3, 4 are correct
 - 1, 4 are correct
 - 1, 2, 3 are correct

Question numbers xi - xv are single response types

- Lung fluke is
 - P.westermanii
 - C.sinensis
 - F.buski
 - None of the above
- Darling's disease is another name for
 - Sporotrichosis
 - Blastomycosis
 - Rhinosporidiosis
 - Histoplasmosis
- Cold agglutination test is diagnostic for infections caused by
 - Leigionella
 - Listeria
 - Mycoplasma
 - Chlamydia
- Causative agent for Infectious mononucleosis is
 - Adenovirus
 - Epstein Barr virus
 - Coxsackie virus
 - ECHO virus
- Which of the following is INCORRECT for campylobacter jejuni infection
 - Causes dysentery
 - Can precipitate Guillain - Barre syndrome
 - Diagnosed by Urea Breath test
 - Primarily a zoonoses

(PTO)

Question numbers xvi – xx consists of two Statements-Assertion (A) and Reason (R). Answer these questions by selecting the appropriate options given below.

- a) Both A and R are true and R is the correct explanation of A
b) Both A and R are true and R is not the correct explanation of A
c) A is true but R is false
d) A is false but R is true
- xvi. **Assertion (A):** VDRL test is also called as Standard test for Syphilis
Reason (R): VDRL test is a specific test for Syphilis
- xvii. **Assertion (A):** Drug of choice for atypical pneumonia is Macrolides
Reason (R): Atypical pneumonia is commonly caused by *Mycoplasma pneumoniae*.
- xviii. **Assertion (A):** Alkaline peptone water is used as an enrichment medium for *Vibrio cholerae*
Reason (R): Alkaline peptone water has a pH of 8.6
- xix. **Assertion (A):** India Ink staining is used as a diagnostic test for *Cryptococcal meningitis*
Reason (R): *C. neoformans* is a Gram positive yeast
- xx. **Assertion (A):** *Ancylostoma duodenale* usually causes hyper infection syndrome
Reason (R): *Ancylostoma duodenale* enters into human body through skin penetration

Essays

(2x10=20)

2. A 50 year male presents to medicine OPD with history of fever and jaundice of 02 months duration. He gives history of blood transfusion 06 months back.
- What is your clinical diagnosis and name the etiological agent.
 - Describe the pathogenesis of this clinical condition.
 - Describe the lab diagnosis of this clinical condition.
 - Add a note on drug therapy and prophylaxis of this disease. (1+3+4+2)
3. A 3 year old girl child admitted with history of acute onset of fever, headache and vomiting. On examination, neck stiffness was seen. Gram stain of CSF sample revealed few pus cells and Gram positive cocci arranged in pairs
- What is your clinical diagnosis and the most likely etiological agent.
 - Enumerate other organisms that can cause similar clinical conditions.
 - Describe the laboratory diagnosis of this condition
 - Add a note on vaccines available to prevent this condition. (2+2+4+2)

(6x6=36).

Short Essays

- Recent methods in lab diagnosis of tuberculosis
- Shigellosis
- Hydatid cyst
- Mention 04 Bacterial Zoonotic Diseases. Add a note on Bubonic plague.
- Free living amoebae
- Pathogenesis and lab diagnosis of Japanese encephalitis

(6x4=24)

Short Answers

- Clostridium difficile*
 - Write a note on Ethical guidelines for proper handling of patient sample
 - Germ tube test – procedure and clinical significance
 - Virulence factors of B - pertussis
 - Mention the organisms included in TORCH complex
 - Draw a neat labelled diagram of trophozoite and cyst of *Giardia lamblia*
- *****