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MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND MBBS DEGREE EXAMINATION – MAY 2018

SUBJECT: MICROBIOLOGY – PAPER I (ESSAY)

**M.M.C. LIBRARY**  
**MANGALORE**

Monday, May 07, 2018

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

☞ Answer ALL the questions.

1. Define sterilization. Write briefly the principle, function, uses and quality control measures for autoclave.

(2+2+2+2+2 = 10 marks)

2. A 12 year old boy is admitted with fever and swollen, red, tender knee, elbow and ankle joints. The joint pain migrates from one joint to another. He had a history of acute pharyngitis 2 weeks back.

2A. What is the probable diagnosis? Which organism is usually responsible for this complication?

2B. What is the pathogenesis of this condition?

2C. How do you confirm your diagnosis in the laboratory?

2D. Write briefly about the prophylaxis for this condition.

(2+3+3+2 = 10 marks)

3. Write short notes on:

3A. Gram negative bacterial cell wall

3B. Blood culture

3C. Transduction

3D. Killed bacterial vaccines – use with example

3E. IgM – structure and function

3F. Uses of HLA typing

3G. Type II Hypersensitivity – mechanism with example

3H. Malignant pustule

3I. Non-gonococcal urethritis

3J. Laboratory diagnosis of gas gangrene

3K. ETEC – pathogenesis and laboratory diagnosis

3L. Atypical mycobacteria – classification with example

3M. Causative agent and laboratory diagnosis of Weil's disease

3N. Standard tests for syphilis – merits and demerits

3O. Scrub typhus - brief description and laboratory diagnosis

(4 marks × 15 = 60 marks)



## MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND MBBS DEGREE EXAMINATION – MAY 2018

SUBJECT: MICROBIOLOGY – PAPER II (ESSAY)

Tuesday, May 08, 2018

B.M.C. LIBRARY  
MANGALORE

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

Answer ALL the questions.

1. Explain the life cycle, pathogenicity and laboratory diagnosis of *Leishmania donovani*.  
(3+3+4 = 10 marks)

2. A thirty five year old man presented to the medicine OPD with history of loss of appetite and vomiting, anorexia and lethargy since two weeks. Upper abdominal pain was present since two days. On physical examination he had jaundice. He gives history of intravenous drug abuse. His liver enzymes were elevated and he tests positive for HBsAg.

2A. What is the likely diagnosis?

2B. What are the various serological markers used in the diagnosis of this disease and what is the significance of each?

2C. What are the modes of transmission?

2D. Describe immunoprophylaxis.

(1+5+2+2 = 10 marks)

3. Write short notes on:

3A. Hepatic amoebiasis

3B. *Trichomonas vaginalis*

3C. Name four parasitic infections of zoonotic origin

3D. Laboratory diagnosis of Cryptococcal meningitis

3E. Kyasanur Forest Disease

3F. NIH swab

3G. MMR vaccine

3H. Draw and label the diagram of human immunodeficiency virus

3I. Mycotoxins

3J. Bronchopulmonary aspergillosis

3K. Define antigenic shift and Antigenic drift

3L. Life cycle of *Diphyllobothrium latum*

3M. Chromoblastomycosis

3N. Microfilaria

3O. Inclusion bodies

(4 marks × 15 = 60 marks)

