

UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES - PART 1 (2nd)

November 2014

Microbiology Paper II

Date: 10.11.2014

Time allowed: 2 hours



Answer all **four** questions.

- 1) A 21 year old man was admitted to the Teaching Hospital Jaffna with fever for 6 days associated with dull frontal headache, malaise and dry cough. His temperature on admission was 39°C and his pulse rate was 82/minute. His White blood cell count was 4000/mm³ with 47% lymphocytes. The physician wants to exclude typhoid fever.
 - 1.1 Name two differential diagnoses other than typhoid fever. (10marks)
 - 1.2 Discuss the microbiological tests available for the diagnosis of Typhoid fever. (50marks)
 - 1.3 Discuss briefly the preventive measures for typhoid fever. (40marks)

- 2) A 63 year old man was investigated for recurrent lower urinary tract infection.
 - 2.1 Name five bacteria that can cause urinary tract infection in this patient. (10marks)
 - 2.2 Describe the possible risk factors for urinary tract infection **in this** patient. (20marks)
 - 2.3 Describe how to collect, store and transport the specimen from this patient for microbiological diagnosis. (40marks)
 - 2.4 Discuss the choice of antibiotics in the treatment of this patient. (30marks)

- 3) A four year old girl from Mullaitivu developed fever for 5 days with dry cough, runny nose and conjunctival suffusion. She developed generalised maculopapular rash on the 4th day of fever. Her immunization history was poor and she was severely malnourished. The paediatrician wants to exclude measles.
 - 3.1 Name four infections other than measles that cause fever with rash in this child. (10marks)
 - 3.2 Describe briefly the mode of transmission of measles virus. (10marks)

3.3 Discuss the complications of measles. (30marks)

3.4 Describe how to diagnose measles including both clinical and diagnostic tests. (50marks)

4) 4.1 A 20 year old university student playing netball for the University developed an itchy rash over her left thigh. She had the habit of sharing the towel of her teammates. On examination it was an annular lesion with raised reddish margin. The dermatologist treated it with an antifungal agent.

4.1.1 What is the most probable diagnosis? (10marks)

4.1.2 Name two other fungi that cause dermatological infection. (10marks)

4.1.3 Describe briefly how to collect, store and transport the specimens from skin, nail and hair for fungal diagnosis. (30marks)

4.2 Write notes on antifungal agents. (50marks)

V/A