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**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**MD (MEDICAL MICROBIOLOGY) EXAMINATION - NOVEMBER 2017**

**Date :-** 2<sup>nd</sup> November 2017

**Time :-** 9.00 a.m. - 12.00 noon

**PAPER I**

Answer **all five (05)** questions.

Answer each question in a separate book.

1.
  - 1.1. Define hospital-acquired pneumonia (HAP) and ventilator-associated pneumonia (VAP). (10 marks)
  - 1.2. Briefly discuss the microbiological methods available to diagnose VAP, including their advantages and limitations. (30 marks)
  - 1.3. Discuss the antibiotic treatment of ventilator-associated pneumonia in adults. (60 marks)
2. Explain how the performance of a diagnostic microbiology laboratory can be maintained and improved using a quality management system. (100 marks)
3. Briefly discuss surveillance of human viral infections in relation to disease elimination /eradication, giving examples. Include how surveillance is being conducted for the infections mentioned in your answer. (100 marks)
4.
  - 4.1. State the mechanism of action and the spectrum of activity of amphotericin B. List the available formulations of amphotericin B and briefly discuss their pharmacokinetics, advantages and disadvantages. (40 marks)
  - 4.2. Describe the risk factors, pathogenesis, clinical manifestations, laboratory diagnosis and antifungal treatment of invasive fusariosis. (60 marks)
5.
  - 5.1. Outline the immune response against microbial pathogens. (40 marks)
  - 5.2. Describe the clinical consequences of primary immune deficiency diseases, giving examples. (60 marks)