

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (MEDICAL VIROLOGY) EXAMINATION – NOVEMBER 2022

Date: 16th November 2022

Time: 9.00 a.m. – 12.00 noon

PAPER I

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

Answer each question in a separate book.

1. Solid Organ Transplantation (SOT) is generally considered a lifesaving and cost-effective treatment for patients with end-stage organ disease.
Discuss the spectrum of post-transplant viral infections in SOT and their prevention and management, emphasizing the challenges encountered. (100 marks)

2. The World Health Organization has identified polio, measles and rubella for eradication or elimination.
Discuss the features of a viral infection that you would **consider** when choosing a virus for eradication, giving examples. (100 marks)

3.
 - 3.1. Name the available classes of anti-retroviral drugs. Describe the site, mode of action and the mechanisms of resistance of these drugs. (60 marks)
 - 3.2. Discuss the clinical use of anti-retroviral drugs in HIV. (40 marks)

4. There are many vaccine platforms with varying immune responses.
Discuss the different vaccines used against SARS-CoV-2, giving the advantages and disadvantages of each vaccine. (60 marks)

Giving examples, discuss the strategies that can be used to improve the effectiveness of the immune responses against SARS-CoV-2 using the currently available vaccines. (40 marks)

5. Efficacy is the extent to which a medicine achieves its intended effect under ideal circumstances such as in a randomized clinical trial whereas effectiveness is the extent to which a medicine achieves its intended effect in the usual clinical setting.
Discuss the features that influence the effectiveness of an antimicrobial agent in the clinical setting. (100 marks)