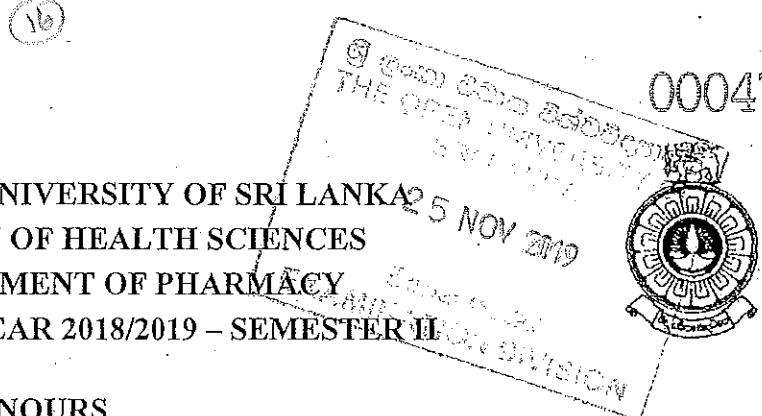


00047

THE OPEN UNIVERSITY OF SRI LANKA  
FACULTY OF HEALTH SCIENCES  
DEPARTMENT OF PHARMACY  
ACADEMIC YEAR 2018/2019 – SEMESTER II



BACHELOR OF PHARMACY HONOURS  
BPU2223- PHARMACEUTICAL MICROBIOLOGY- LEVEL 4  
FINAL EXAMINATION  
DURATION: 03 HOURS

---

DATE: 25.11.2019

TIME: 9.30 A.M.- 12.30 P.M.

---

00047

THE OPEN UNIVERSITY OF SRI LANKA  
FACULTY OF HEALTH SCIENCES  
DEPARTMENT OF PHARMACY  
ACADEMIC YEAR 2018/2019 ~ SEMESTER II



BACHELOR OF PHARMACY HONOURS  
BPU2223- PHARMACEUTICAL MICROBIOLOGY- LEVEL 4  
FINAL EXAMINATION  
DURATION: 03 HOURS

---

DATE: 25.11.2019

TIME: 9.30 A.M.- 12.30 P.M.

---

Index No.....

**Part - B (40 marks)**

There are four (04) Short Answer Questions. Answer all.

1.

- 1.1 List two (02) types of vaccines used for active immunization giving one (01) example for each. (04 marks)

I.....

Example:.....

II.....

Example:.....

- 1.2 List three (03) vaccines used in ‘recommended schedule for Expanded Programme of Immunization (EPI) of Sri Lanka’. (03 marks)

I.....

II.....

III.....

- 1.3 Briefly explain the term ‘secondary immune response’ in vaccination. (03 marks)

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

Index No.....

2.

2.1 Define the following terms of symbiotic associations giving one (01) example for each.

(06 marks)

2.1.1. Commensalism:

.....  
.....  
.....  
.....

2.1.2. Mutualism:

.....  
.....  
.....  
.....

2.1.3. Parasitism:

.....  
.....  
.....  
.....

2.2 List two (02) bacterial species that cause diseases in humans by producing toxins.

(01 mark)

- I.....  
II.....

2.3 Mention three (03) differences between endotoxins and exotoxins. (03 marks)

- I.....  
.....  
II.....  
.....  
III.....  
.....

Index No.....

3.

3.1. List two (02) major uses of serological tests. (02 marks)

I.....

II.....

3.2. List two (02) commonly used serological tests. (02 marks)

I.....

II.....

3.3. List three (03) examples for ‘antigen presenting cells’ in adaptive immunity. (03 marks)

I.....

II.....

III.....

3.4. State the role of antigen presenting cells in adaptive immunity. (03 marks)

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

**Index No.....**

4.

4.1 List two (02) differences in the production process of a live attenuated bacterial vaccine and a live attenuated viral vaccine.

(02 marks)

I.....

.....  
.....

II.....

.....  
.....

4.2 State two (02) main uses of agar diffusion method in Pharmaceutical microbiology.

(02 marks)

I.....

.....  
.....

II.....

.....  
.....

4.3 List two (02) sources of microbial contamination of pharmaceutical products. (02 marks)

I.....

.....  
.....

4.4 State two (02) methods used to control microbial contamination from each of the above mentioned sources in 4.3. (04 marks)

I.....

.....  
..........  
.....

II.....

.....  
..........  
.....

Index No.....

**Part - C (40 marks)**

There are two (02) Structured Essay Questions (SEQs). Answer all.

1.

1.1 List four (04) factors that determine the effectiveness of a disinfectant. (02 marks)

1.2 List two (02) examples for chemical disinfectants. (01 mark)

1.3 State three (03) mechanisms by which chemical disinfectants act against microorganisms. (03 marks)

1.4 Disinfection is the choice of process for the items with intermediate risk of infection whereas sterilization is the choice of process for the items with high risk of infection. Explain. (08 marks)

1.5 Briefly explain the use of biological indicators in monitoring sterilization process.

(06 marks)

2.

2.1 Give one (01) example for a protozoan parasite causing malaria. (02 marks)

2.2 Mention the stage of life cycle of malaria parasite that will enter human host. (02 marks)

2.3 Mention the stage of life cycle of malaria parasite that enter the mosquito vector. (02 marks)

2.4 Briefly explain the life cycle of malarial parasite inside the human host. (08 Marks)

2.5 Briefly explain pharmacological and non-pharmacological measures that are taken to prevent/control malaria. (06 Marks)

00047