

THE OPEN UNIVERSITY OF SRI LANKA  
FACULTY OF HEALTH SCIENCES  
DEPARTMENT OF PHARMACY  
THE ACADEMIC YEAR 2020/2021 – SEMESTER II



BACHELOR OF PHARMACY HONOURS  
FMU3204- PHARMACEUTICAL MICROBIOLOGY I - LEVEL 3  
FINAL EXAMINATION  
DURATION: TWO (02) HOURS

DATE: 30<sup>TH</sup> SEPTEMBER 2022

TIME: 9.30 A.M.- 11.30 A.M.

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Part B - Short Answer Questions (SAQ) -20 Marks

1.

1.1. List three (03) physical methods used to control microbial growth (03 marks)

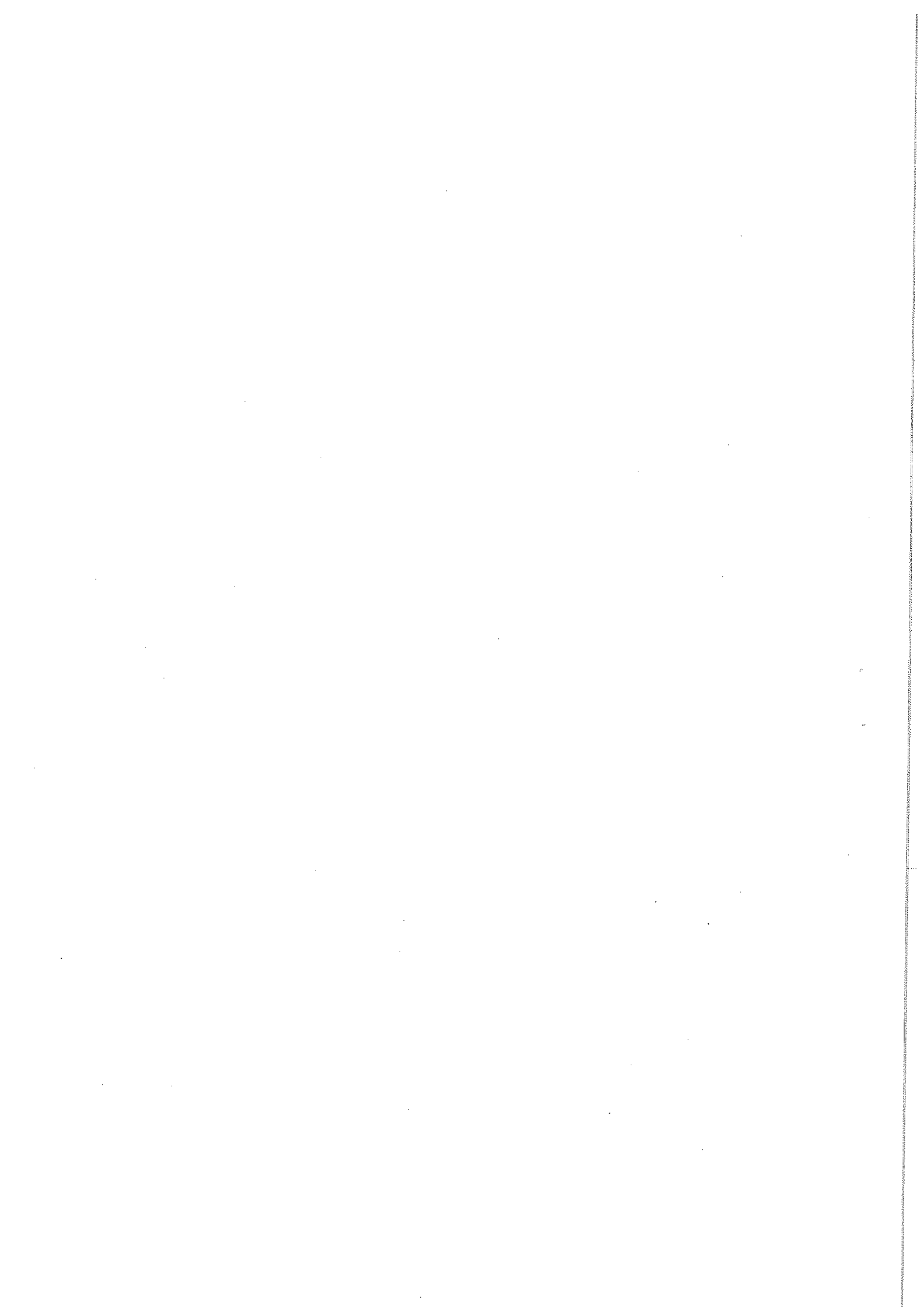
- I. ....
- II. ....
- III. ....

1.2 State two (02) commonly used preservatives in pharmaceuticals (02 marks)

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

1.3. Write the mechanism of action of the antimicrobial listed. (05 marks)

- I. Penicillin .....
- II. Erythromycin .....
- III. Ciprofloxacin .....
- IV. Rifampin .....
- V. Trimethoprim .....



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2.

2.1. Define the term "Disinfection"?

(03 marks)

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.....

2.2. Define the term "Antiseptic"?

(03 marks)

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.....  
.....

2.3. List four (04) chemical compounds used as disinfectants.

(04 marks)

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

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**Part C - Structured Essay Questions (SEQ) – 60 Marks****Answer all questions.**

1.

1.1. List the three (03) factors that vary among different antibiotics. (03 marks)

1.2. What is a “Broad Spectrum Antibiotic” (05 marks)

1.3. Briefly explain “Acquired Resistance” (05 marks)

1.4 Write the two (02) situations that antibiotic assays are being used. (02 marks)

1.5 What is the principle upon which microbiological assay of antibiotics by agar diffusion method is based? Outline a procedure for such an assay. (15 marks)

2.

2.1. Define microbial growth. (05 marks)

2.2. Briefly explain “Generation time”. (05 marks)

2.3. Draw the bacterial growth curve and label the main four (04) phases. (08 marks)

2.4. Briefly explain the four (04) phases mentioned in above 2.3 (12 marks)