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THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF PHARMACY
THE ACADEMIC YEAR 2022/ 2023 – SEMESTER I

BACHELOR OF PHARMACY HONOURS
FMU5403 – PHARMACEUTICAL TECHNOLOGY I – LEVEL 5
FINAL EXAMINATION
DURATION: THREE (03) HOURS

DATE: 23RD MARCH 2023 TIME: 09.30 A.M. – 12.30 P.M.

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Part B – 02 Short Answer Questions (20 Marks)

1.

1.1 State the two (02) systems of weights used in the imperial system. (02 marks)

i.....

ii.....

1.2 State the three (03) types of cubic unit cells. (03 marks)

i.....

ii.....

iii.....

1.3 State five (05) basic air filtration mechanisms that are used to remove particulates from the air. (05 marks)

i. .....

ii. .....

iii.....

iv.....

v.....

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2.

2.1 Write two (02) applications of evaporation in the pharmaceutical manufacturing industry. (04 marks)

i. .....

ii .....

2.2 List three (03) factors affecting drying. (03 marks)

i.....

ii.....

iii.....

2.3 Define the term "relative humidity". (03 marks)

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Part C – 04 Structured Essay Questions – (60 Marks)

1.

1.1. List four (04) properties of liquids that are evaluated to maintain the quality of the product. (04 marks)

1.2. Compare the streamlined flow, viscous flow and turbulent flow of fluids. (06 marks)

1.3. Briefly describe the use of steam as a heating medium in the pharmaceutical industry. (05 marks)

2.

2.1. State three (03) mechanisms of heat transfer. (03 marks)

2.2. Briefly describe the vapour recompression. (04 marks)

2.3. Compare and contrast simple distillation and fractional distillation. (08 marks)

3.

3.1. List four (04) factors affecting the size reduction. (04 marks)

3.2. List five (05) methods used to minimize segregation. (05 marks)

3.3 Differentiate the communition and micronization. (06 marks)

4.

4.1. List five (05) factors to be considered when selecting equipment for mixing of solids? (05 marks)

4.2. List four (04) available methods for regulating humidity? (04 marks)

4.3. Briefly describe centrifugation. (06 marks)