NATIONAL UNIVERSITY OF LESOTHO

FACULTY OF HEALTH SCIENCES

DEPARTMENT OF PHARMACY

BACHELOR OF PHARMACY (HONOURS)

PHA 3402- PHARMACEUTICAL DOSAGE FORMS MANUFACTURING

SUPPLEMENTARY EXAMINATION

August 2023 TIME: 3 HOURS Total: 100 marks

INSTRUCTIONS

- **ANSWER ALL QUESTIONS.**
- **BEGIN EACH QUESTION ON A NEW PAGE**

1. Define the DLVO theory (5) and describe why the Secondary minimum is the desired particulate behaviour of colloidal dosage forms. **[20 marks]**

2. Describe how you would modify the electrical double layer of your dispersed colloidal formulation such that the uniformity of dose is achieved following the redispersion. **[20 Marks]**

3. Outline the extraction process of Type B gelatine (10) and describe how you would prepare the gelatine solution which is suitable for the manufacture of opaque softgel (10). **[20 marks]**

4. Describe how you would manufacture an oral soft gel capsule from the start-up processes up to a finished product such that it will be easy to swallow and has an extended shelf-life. **[20 marks]**

5. Explain how you would go about designing and finally manufacturing an aqueous solution of a poorly water-soluble drug such that it is suitable for multidose IV injection. **[20 marks]**