Part B- Short Answer Questions (20 Marks)

1.

1.1. List four (04) factors affecting the efficiency of the extraction process. (02 marks)

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1.2. Define the following terms related to extraction of herbal material. (02 marks)

1.2.1. Menstruum

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1.2.2. Marc

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1.3. What is the difference between organized herbal drugs and unorganized herbal drugs? (02 marks)

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1.4 List four (04) differences between maceration and percolation extractions. (04 marks)

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Index No.....

2.

2.1 What is the difference between unit processes and unit operations? (02 marks)

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2.2 List five (05) main classes of unit operations. (05 marks)

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2.3 List three (03) differences between evaporation and drying. (03 marks)

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Index No .....

Part C – Structured Essay Questions (60 Marks)

1.

1.1. Define the term "Pharmaceutical incompatibility". (05 marks)

1.2. Compare tolerated chemical incompatibilities and adjusted chemical incompatibilities of drugs. (05 marks)

1.3. State four (04) types of physical changes results from incompatibility of drugs. (10 marks)

1.4 Describe the effect of pH on chemical incompatibility of drugs. (10 marks)

2.

2.1 State three (03) reasons for the formulation of drugs into dosage forms. (06 marks)

2.2 Mention four (04) types of dosage forms classified according to the route of administration, giving two (02) examples for each. (06 marks)

2.3 Write a short note on pre-formulation studies. (08 marks)

2.4 Imagine you are a pharmaceutical scientist tasked with designing an oral dosage form for a new drug intended for diabetes mellitus. As the initial step, you are requested to identify challenges with the drug and to provide your suggestions on overcoming the challenges. The drug was found to be with challenges which include low aqueous solubility, unpleasant taste, and degradation at gastric pH. Explain how each of the above-mentioned challenges affect the bioavailability of the drug and the measures you can take to overcome each of these challenges. (10 marks)