



UNIVERSITY OF RUHUNA – FACULTY OF ALLIED HEALTH SCIENCES
DEPARTMENT OF PHARMACY
SECOND BPHARM PART I EXAMINATION – NOVEMBER/DECEMBER 2023
PH 2123 PHARMACEUTICS IIB – SEQ PAPER

TIME: TWO HOURS

INSTRUCTIONS

- Answer **all** questions.
- No paper should be removed from the examination hall.
- Do not use any correction fluid.
- Use illustrations where necessary.

1. Capsules are mainly of two types as hard gelatin and soft gelatin.

1.1.

1.1.1. State four reasons to use gelatin as a raw material in the process of manufacturing capsules. **(10 marks)**

1.1.2. List four components of a soft gelatin capsule shell. **(10 marks)**

1.1.3. Hard gelatin capsules are manufactured by “Dip - coating method”. Briefly explain this method. **(40 marks)**

1.2. Mention two advantages and two disadvantages of capsules as a dosage form. **(20 marks)**

1.3. State three advantages of a modified drug delivery system. **(10 marks)**

1.4. List five pharmaceutical products which are commonly used in contraception. **(10 marks)**

2.

2.1. Sketch a diagram and label the main parts of an aerosol canister. **(10 marks)**

2.2. Write short notes on the followings.

2.2.1. Formulation of solutions for nebulization **(15 marks)**

2.2.2. Parts of valve assembly **(15 marks)**

2.2.3. Cold filling process **(15 marks)**

2.3. Blood products are therapeutic substances derived from human blood, including whole blood and other blood components for transfusion, and plasma-derived medicinal products. Fill in the blanks given below. **(30 marks)**

Blood components and blood products	Composition	Method of preparation	Indication (one)
2.3.1.	No platelets or granulocytes	Prepared by removing 200-250 ml of plasma from a unit of whole blood	2.3.2.
Granulocytes	2.3.3.	2.3.4.	2.3.5.
Platelet	Platelets	2.3.6.	2.3.7.
Fresh Frozen Plasma	2.3.8.	2.3.9.	2.3.10.

2.4. State the major excipients required to formulate a toothpaste. (15 marks)

3.

3.1. List three general characteristics of a tablet dosage form. (15 marks)

3.2. Name two types of tablet dosage forms used for oral cavity. (10 marks)

3.3. Illustrate the procedure of dry granulation process used to manufacture a tablet using a flow chart. (30 marks)

3.4. Mention two other main types of tablet manufacturing processes except dry granulation. (10 marks)

3.5. Briefly describe microencapsulation process used in tablet coating. (20 marks)

3.6. Mention three tablet defects which may occur during tablet manufacturing. (15 marks)

4.

4.1. Define the term physical pharmaceutical incompatibility. (10 marks)

4.2. Briefly explain the prevention of precipitate yielding interaction under the chemical pharmaceutical incompatibility. (30 marks)

4.3. State three types of injections used in parenteral administration. (15 marks)

4.4. Write short notes on the following.

4.4.1. Single dose ampoules (15 marks)

4.4.2. Form fill seal technology (15 marks)

4.4.3. Sterile water for injection (15 marks)

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