International Islamic University Chittagong

Department of Pharmacy

Program: B.Pharm (Hons)

Examination: Final Session: Autumn-2021

Course Code: **Pharm-4701** Course Title: **Pharmaceutical Technology-III**

Full Marks: 50 **Time: 2 Hours and 30 Minutes**

Group A (Marks: 20)

Answer any two questions

1.	a)	Define sustain release dosage form (SRDF). Describe the release mechanism of drug from SRDF.	3
	b)	Write down the merits and demerits of SRDF.	3
	c)	Design the principle of barrier method to manufacture SRDF.	4
2.	a)	Why is propellant used in aerosol dosage form? Which propellant is more preferable and why?	4
	b)	Mention the evaluation process of aerosol.	3
	c)	Draw and label a typical aerosol container.	3
3.	a)	Name and explain the functions of ingredients used in parenteral formulation.	3
	b)	What do you mean by LAL test? Depict the mechanism and process of LAL test.	4
	c)	Classify ophthalmic preparations. Describe the quality control parameter of ophthalmic preparation.	3

Group B (Marks: 30)

Answer any three questions

4.	a)	Write down the criteria for selection of packaging type and packaging materials.	4
	b)	Write down the differences between strip and blister packaging.	3
	c)	Classify glass container. Which glass container is more preferable for parenteral dosage form and why?	3
5.	a)	Mention the drug plastic beneficial consideration for selection of plastic as packaging materials.	4
	b)	Illustrate the beneficial effects of aluminum as packaging meterials.	3
	c)	During selection of packaging materials, why environmental concern should be taken in consideration?	3
6.	a)	Suppose pharmacist Mr. X is assigned to manufacture oral solid dosage form and pharmacist Mr. Y is assigned to manufacture parenteral dosage form. During both manufacturing processes answer to the following question: i) Mention the clean room conditions condition in both cases. ii) What will be the room pressure condition in both cases? iii) What will be dress conditions for Mr. X and Mr. Y?	4
	b)	As we know that the efficacy of HEPA filter is 99.99 %, how is HEPA filter more efficacious then other conventional filter?	3
	c)	Mention the commissioning test for clean and aseptic room.	3
7.	a)	Classify clean room according to EU pharmaceutical cleanliness grade.	2
	b)	What are the different types of contaminants in pharmaceutical area? Describe the sources of contamination along with its preventive measures.	3
	c)	Write down the differences between unidirectional air flow and non-unidirectional air flow.	2
	d)	What do you mean by HEPA? Note down the characteristics of laminar air flow.	3