



International Islamic University Chittagong

Department of Pharmacy

B. Pharm (Hon's) Program

Final Examination

Spring Semester 2019

Course Code: **Pharm-3501**

Course Title: **Pharmaceutical Technology-II**

Time: 2 hours 30 minutes

Full Marks: 50

(Answer of separate groups should be given in separate scripts. Figures on right margin indicate marks)

Group A		<i>(Answer any <u>two</u> questions from the followings)</i>	Marks: 20
1.	a)	Define the term microencapsulation. Mention different types of microcapsules.	2.5
	b)	What are the reasons of microencapsulation?	1.5
	c)	What are the properties of coating materials used for microencapsulation? Cite with examples. Mention the different structures of microcapsules.	3.5
	d)	Describe the solvent evaporation method for microencapsulation process.	2.5
2.	a)	Define the term "Gelatin". Mention its properties.	3
	b)	Cite the pharmaceutical aspects of soft gelatin capsule.	3
	c)	Mention the additives used in the gelatin mass used for the preparation of soft gelatin capsule.	3
	d)	What is minim?	1
3.	a)	Define the term Hard gelatin capsule. Briefly describe the historical background of capsules as a pharmaceutical dosage form.	2
	b)	What are the advantages of hard gelatin capsules over soft gelatin capsules?	2.5
	c)	Draw the volume, height and diameter of different sizes of hard gelatin capsules.	3
	d)	Mention the names of evaluations of capsules. How can you perform the disintegration test for capsules?	2.5
Group B		<i>(Answer any <u>three</u> questions from the followings)</i>	Marks: 30
4.	a)	Define the term semi-solid dosage form with examples.	2
	b)	Define and classify ointment bases. Cite the ideal properties and pharmaceutical factors for the selection of an ointment base.	4
	c)	Write a petite note on transdermal drug delivery system with its advantages and disadvantages.	4
5.	a)	What is the historical background of tablet coating?	2
	b)	Describe the design and working principle of standard coating pan.	3
	c)	What do you know the spray application system in the tablet coating?	2
	d)	Cite the compression coating technology for tablet technology.	3
6.	a)	Draw a complete formula and process of seal coat and sub coat of sugar coating technology.	4
	b)	Deduce the theory of film coat formation for tablet coating.	3
	c)	What is plasticizer? Mention the mechanism of action of plasticizer during tablet coating.	3
7.	a)	Define the term enteric coating. What are the reasons of enteric coating?	2.5
	b)	Write down the properties of enteric coating materials.	1.5
	c)	Differentiate between sugar coating and enteric coating technology.	3
	d)	Write short note on HPMC and PVP.	3