

FOURTH SEMESTER DIPLOMA EXAMINATION IN POLYMER
TECHNOLOGY—MARCH, 2013

LATEX TECHNOLOGY

[Time : 3 hours

(Maximum marks : 100)

PART—A

(Maximum marks : 10)

Marks

- I Answer the following questions in one or two sentences. Each question carries 2 marks.
1. Define latex.
 2. State the purpose of agglomeration of synthetic latex.
 3. What is dry coacervant dipping ?
 4. State the principle of Talalay process.
 5. State two advantages of spreading over processes which use solvent dough. (5×2=10)

PART—B

(Maximum marks : 30)

- II Answer *any five* of the following. Each question carries 6 marks.
1. Explain stabilisation of latex.
 2. Differentiate latex compounding and dry rubber compounding.
 3. Explain halogenation and roughening.
 4. State the principle of rotational moulding.
 5. Explain latex foam defects with reasons.
 6. Give the composition and applications of latex-cement mixture.
 7. Write a recipe and characteristics of spreading compound. (5×6=30)

PART—C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each question carries 15 marks.)

UNIT—I

- III (a) Explain preparation of dispersions with suitable formulations, also evaluate the prepared dispersions. 8
- (b) Explain two methods of agglomeration of synthetic latices. 7

OR

		Marks
IV	(a) Explain the process of concentration of SBR latex.	8
	(b) Explain the production and application of SBR latex.	7
UNIT—II		
V	(a) Explain any four types of dipping process with merits and demerits.	8
	(b) Explain with a formulation the production sequence of Household gloves.	7
OR		
VI	(a) With a formulation explain the production process of Rubber band.	8
	(b) Differentiate examination gloves and surgical gloves.	7
UNIT—III		
VII	(a) List the various latex foam products and explain the principle of gelation of latex foam.	8
	(b) Explain any two types of paper treatments and their advantages.	7
OR		
VIII	(a) Explain with a formulation the production of coir foam.	8
	(b) Explain the production and advantages of carpet backing.	7
UNIT—IV		
IX	(a) Write a formulation of latex thread and explain the production sequence.	8
	(b) Compare latex thread with dry rubber thread.	7
OR		
X	(a) Explain any four methods of latex spreading with sketches of machinery.	8
	(b) Write three advantages of latex adhesive over other methods and explain the features of adhesive for metals, ceramics and glass.	7
