

TED(10) 3092

Reg.No.

(Revision 2010)

Signature.

FOURTH SEMESTER DIPLOMA EXAMINATION IN POLYMER TECHNOLOGY –
OCTOBER - 2012

LATEX TECHNOLOGY

(Maximum Marks : 100)

(Time 3: hours)

PART - A

- I. (Note: Answer all questions in one or two sentences, each question carries 2 marks) Marks
1. Write the different phases and their composition of a natural rubber latex (NRL)?
 2. Define latex compounding?
 3. Write the principle of dipping process?
 4. What are the different process for the manufacture of latex foam?
 5. List the 4 latex products made by extrusion? [5x2=10]

PART - B

(Answer any five full questions, Each question carries six marks)

- II. 1. (i) Explain the principle of latex compounding? [3]
(ii) Describe the method of production of dispersions and emulsions? [3]
2. Write the different steps involved in the production of examination gloves? [6]
 3. What are the different methods in the production of latex foam? [6]
 4. Describe the process of latex thread production? [6]
 5. Explain the method of preparation and characteristics of Latex based paper adhesives? [6]
 6. Write the composition and method of application of latex cement flooring compound? [3+3=6]
 7. What are the characteristics of spreading compound? 6]
- [5x6=30]

PART - C

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

UNIT - I

- III. a. Explain the chemical composition, and properties of a natural rubber latex? [10]
b. What are the ingredients used in compounding of latex? [5]

OR

- IV. a. Explain the working and different parts of a ball mill? What are the factors affecting efficiency of a ball mill? [5]
b. What are the difference between latex compounding and dry rubber compounding? [5]
c. Explain the principle of latex compounding with typical example? [5]

UNIT - II

- V. a. Describe the different steps for the production of natural rubber latex gloves? [5]
b. What are the advantages of casting over the moulding process? [5]
c. Explain the common effects and remedies of dipped products? [5]

OR

- VI.** a. Explain the process of manufacture of rubber band with suitable formulation for the production of rubber band? [8]
b. Describe the after treatments of production of rubber gloves? [7]

UNIT – III

- VII.** a. Explain the different steps for the production of latex foam with help of a suitable flow chart and formulation? [8]
b. Explain the methods for applying latex to Road surfacing? [7]

OR

- VIII.** a. Describe the steps and selection of ingredients for the production of coir fiber foam? [8]
b. write the production process of latex to carpet backing with help of a flow chart? [7]

UNIT – IV

- IX.** a. What are the formulatory principles for Latex based adhesives? [8]
b. Describe the method of manufacture of latex thread with the help of a flow process chart and formulation? [7]

OR

- X.** a. Describe the process of latex rubber tubing? [5]
b. Explain the composition and properties of RFL adhesives for treatment of tyre cord [5]
c. What are the latex spreading methods? With the help of a schematic illustration? [5]
