

S4 PL-15

TED (10) – 3090

Reg. No.

(REVISION — 2010)

Signature

FOURTH SEMESTER DIPLOMA EXAMINATION IN POLYMER
TECHNOLOGY — MARCH, 2015

RUBBER PRODUCTS

[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. Name any four moulded products.
2. Define cellular rubber.
3. What are the components of a Tennis ball ?
4. Name the adhesives used in the treatment of Nylon 6.6.
5. What are the major components of a V-belt ?

(5×2=10)

PART—B

(Maximum marks : 30)

II Answer *any five* of the following questions. Each question carries 6 marks.

1. Explain the process of manufacturing Ebonite battery Containers.
2. Explain the techniques adopted for the flash and sprue removal of moulded products.
3. Describe the process of manufacturing automobile channels.
4. Explain the process of profile calendaring with a suitable example.
5. Explain the process of Rubber lining with Chemical tank lining as an example.
6. Explain with a neat sketch the production of moulded hose.
7. Explain the process of continuous curing of beltings.

(5×6=30)

PART—C

(Maximum marks : 60)

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

UNIT—I

- III (a) Explain the production and compounding of hot water bags with a neat sketch. 8
 (b) Explain the different steps involved in the production of dry rubber products. 7

OR

- IV (a) Explain the design and manufacture of automobile bushes. Give a typical formulation. 8
 (b) What are blowing agents ? Explain the different types and their applications. 7

UNIT—II

- V (a) Mention the different methods employed in the manufacture of rubber foot wear. Explain in detail any one method. 8
 (b) Explain the process of manufacturing hospital sheets. 7

OR

- VI (a) List the various extruded rubber products. Explain the process of manufacturing rubber tubings. 8
 (b) Explain the method of manufacturing gaskets with a typical formulation. 7

UNIT—III

- VII (a) What are the various steps involved in the manufacture of rubber to metal bonded products with a suitable example ? 8
 (b) Explain the process of spreading with a neat sketch. 7

OR

- VIII (a) Explain the surface preparation of metals for rubber to metal bonding. 8
 (b) How are rice polisher rolls manufactured ? Describe the process. 7

UNIT—IV

- IX (a) Explain the building and curing of flat transmission belts. 8
 (b) With a neat sketch list the components of a power cable and explain briefly the manufacturing process. 7

OR

- X (a) Explain the process of manufacturing mandrel cured hose. 8
 (b) Explain the process of manufacturing V-belts with neat sketch. 7