AMPL15 RUBBER TECHNOLOGY

UNIT-1 NATURAL RUBBER

1.1 Tapping latex,
1.2 Processing of Latex
1.3 Dry rubber production (Smoked sheet, air dried sheet, Crepe etc.)
1.4 Grading of rubbers
1.5 Modified natural rubber,
1.6 Reclaimed rubber- process of reclamation
1.7 Applications.

UNIT-2 COMPOUNDING DESIGN AND VULCANIZATION

2.1 Sulphur vulcanization and non-Sulphur vulcanization,
2.2 Vulcanization systems
2.3 Accelerators, activators, promoters, antioxidants, antiozonants,
2.4 Processing aids, fillers and effect of fillers, blowing agents etc.

UNIT-3 SYNTHETIC ELASTOMERS

3.1 Manufacturing, structure, properties,
3.2 Compounding, curing and applications
3.3 Polyisoprene, Polybutadiene, SBR, EPDM,
3.4 Butyl rubber, Neoprene, Nitrile rubber,
3.5 Silicone rubber, Fluoro elastomer,
3.6 Polysulphide rubber, polyurethane rubber, Acrylic rubber.

UNIT-4 THERMOPLASTIC ELASTOMERS

4.1 Basic structure, Manufacture, Morphology,
4.2 Commercial grades and Applications
4.3 Thermoplastic styrene block copolymers,
4.4 Polyester thermoplastic elastomers,
4.5 Polyamide thermoplastic elastomer,
4.6 Polyurethane thermoplastic elastomers.

UNIT-5 RUBBER PRODUCT MANUFACTURING

5.1 Belting, Hoses, Footwear,
5.2 Rubber metal bonded items, sports goods, cellular rubber

References Book:

1. Anil .K. Bhowmic, Howard L. Stephens (Edt), Handbook of Elastomers - New Developments & Technology, Marcel Decker Inc. New York 1988. Maurice Morton, Rubber Technology
2. C.M.Blow and Hepburn, - Rubber Technology and Manufacture, 2nd edition, 1982. Hoffman, Rubber Technology Handbook -, Hanser Pub. Munich - 1996