SECTION-D

Note: Long answer questions. Attempt any two questions out of three Questions. (2x8=16)

Q.23 Write short note on :

a) Role of Banbury Mixer in Rubber processing

b) Chemistry of sulphur vulcanisation

Q.24 Explain construction and working principle of single screw mixer extrude with label diagram.

Q.25 Explain :

a) Properties and applications of SBR rubber.

b) Advantages of synthetic rubber over natural rubber.

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Roll No. .....

6th Sem.
Branch : Plastic Technology
Sub. : Rubber Technology

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (6x1=6)

Q.1 _____ is the main reason behind the elasticity of rubber.

a) Helix b) Octahedral

c) Trigonal planar d) Pentagonal

Q.2 _____ is added to rubber to make vulcanised thermosetting polymer.

a) Potassium b) Sulphur

c) Sodium d) Phosphorous

Q.3 When rubber is subjected to a load, it deforms

a) True b) False

c) Can be true or false d) None of these

Q.4 Which of the following resistances is provided by the presence of chlorine in CR molecules?

a) Resistance to flex cracking

b) Ozone resistance

c) Flame resistance

d) Resistance to oxidative aging

Q.5 What is the monomer composition of IIR polymer or Butyl Rubber?

a) Isobutylene

b) Isoprene

c) Isoprene & isobutylene

d) Isoprene, isobutylene and chloroprene

Q.6 Accelerator used in rubber processing are _____.

a) MBT b) MBTS

c) TMTD d) All of these

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Expand EPDM.

Q.8 Name two defects of calendaring process.

Q.9 Name two products made by extrusion process.

Q.10 Write two applications of Silicon rubber.

Q.11 Name different grades of natural rubber.

Q.12 Define Latex.

SECTION-C

Note: Short answer type Questions. Attempt any eight questions out of ten Questions. (8x4=32)

Q.13 Explain basic concept of rubber elasticity.

Q.14 Discuss historical background of natural and synthetic rubbers.

Q.15 Write properties and applications of Polyurethane rubber.

Q.16 Discuss non sulphur vulcanisation of rubbers.

Q.17 Explain various types of carbon black and non black fillers.

Q.18 Discuss batch curing and continuous vulcanisation techniques.

Q.19 Write any four properties and applications of EPDM rubber.

Q.20 Explain two roll mill with neat sketch.

Q.21 Discuss anti-oxidants and anti-ozonants with example.

Q.22 Explain physical aspect of vulcanisation.