Q.32 Discuss the requirements of rubber elasticity.

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four questions. (3x10=30)

Q.33 What is rubber elasticity? Discuss the effect of chemical structure on the performance properties of rubbers.

Q.34 Explain composition of latex, tapping and processing of latex. Also explain its properties and applications.

Q.35 Write short note on :

a) Poly Butadiene rubber
b) SBR Rubber

Q.36 Discuss:

a) Rubber blends
b) Dynamic vulcanization

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Rubber Tech

Subject : Rubber Materials

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory (10x1=10)

Q.1 Rubber latex is obtained by _____ tree.

Q.2 Give two applications of Butyl Rubber.

Q.3 Name two superior properties of Poly chloroprene rubber.

Q.4 Rubber materials show elastic values only after _____ process.

Q.5 Explain EPDM.

Q.6 Name two different types of carbon black filler.

Q.7 Which rubber is mainly used in tubes and linings?

Q.8 Give two applications of TPU.

Q.9 Butyl rubber is a copolymer of _____.

Q.10 Expand TMTD.

SECTION-B

Note: Very short answer type questions. Attempt any ten questions out of twelve questions. (10x2=20)

Q.11 Define elasticity.

Q.12 Give two applications of polyisoprene rubber.

Q.13 Give two properties of silicone rubber

Q.14 Define latex.

Q.15 Define vulcanization process.

Q.16 Define rubber smoke sheet.

Q.17 What is ADS?

Q.18 Give two applications of Polysulphide rubber

Q.19 Name various di-isocynates used in Polyurethane preparation.

Q.20 Define coagulation of latex.

Q.21 Name two fluoro-elastomers.

Q.22 What is the fractional ratio of mixing of NR for mixing rubber in two-roll mill.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x5=40)

Q.23 Discuss properties and applications of silicone elastomers.

Q.24 Give preparation and properties of Nitrile rubber.

Q.25 What is synthetic polyisoprene? How it differs from its natural rubber component.

Q.26 Discuss Ethyl-vinyl Acetate copolymers.

Q.27 Explain Conversion of latex into dry rubber.

Q.28 Discuss the effect of structure on processing properties of elastomers.

Q.29 Give preparation, properties and applications of Ethylene Propylene Rubber.

Q.30 Discuss SBS & SIS Block copolymers.

Q.31 Give Properties and applications of Thermoplastic Polyurethane elastomers.