Q.31 Write short note on cutting and sampling.

Q.32 Explain functional surfaces and letters and alphabets.

SECTION-D

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

Q.33 Explain various stage of product development.

Q.34 Explain various processing limitations with rubber product design & also te effect of environmental exposure.

Q.35 Write short note on:_

a) Mechanical requirements of rubber design.

b) Well thickness and its importance

Q.36 Explain:

a) Factors of considerations while designing statically loaded rubber component.

b) Welding process used in rubber designs.

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5th Sem. / RUBBER TECHNOLOGY

Subject : RUBBER PRODUCT DESIGN

Time : 3 Hrs. M.M. : 100

SECTION-A

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

Q.1 Name two rubber materials used in belts.

Q.2 Name two mechanical properties of rubber.

Q.3 Expand DMC.

Q.4 What is meant by oxidative aging?

Q.5 Define sampling.

Q.6 What is stress whitening?

Q.7 Expand MEK.

Q.8 Weld line is a _____ of rubber product design.

Q.9 Minimum distance between the edge the hole is_____ in rubber product design.

Q.10 Name two important properties of rubbers,

SECTION-B

Note: Very Short answer type questions. Attempt any ten parts (10x2=20)

Q.11 What is riveting?

Q.12 Write first two state of Rubber design.

Q.13 Name two rubber design features.

Q.14 What is weld line?

Q.15 Define functional surface.

Q.16 Classify threads in rubber design.

Q.17 Define solvent Cementing.

Q.18 Define shapes in rubber design.

Q.19 Explain drilling operation.

Q.20 Why draft angle is important in rubber design.

Q.21 Define anisotropy.

Q.22 What is an anaerobic adhesive?

SECTION-C

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

Q.23 Classify threads according to unified thread standards.

Q.24 Discuss preliminary design considerations for rubber product design.

Q.25 Discuss friction welding and ultrasonic welding process.

Q.26 Write limitations of rubber products.

Q.27 Write short note on 'cost economics'

Q.28 Explain various shapes used in rubber product designs.

Q.29 Explain various texturing and its types.

Q.30 Explain product life cycle of rubber products.