- **Note:**Long answer type questions. Attempt any three questions out of four questions. (3x10=30)
- Q.33 Explain various methods used to determine the processbility of rubber mix and their application in process control.
- Q.34 Explain principle and types of extruders with the help of neat sketch.
- Q.35 Write short note on:-
  - (a) Trouble shooting calendering process.
  - (b) Extruder head construction
- Q.36 Discuss.
  - a) Handling and weighing/batching systems
  - b) Skim coating and shooting process.

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## 4th Sem. / RUBBER TECHNOLOGY Subject: RUBBER PROCESSING TECHNIQUES-I

Time: 3 Hrs. M.M.: 100

## **SECTION-A**

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

- Q.1 Give structure of 1,3-poly butadiene rubber.
- Q.2 Name the acid used for storage of latex.
- Q.3 Tg value for poly butadiene rubber is \_\_\_\_\_°C.
- Q.4 Give two applications of silicone rubber,
- Q.5 Name two ancillary equipments used in extrusion process.
- Q.6 What LCM?
- Q.7 Expand FIFO.
- Q.8 Name two different types of rubber extruders.

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- Q.9 Name one trouble shooting of extrusion process.
- Q.10 Define latex.

## **SECTION-B**

- **Note:** Very Short answer type questions. Attempt any ten questions out of twelve questions(10x2=20)
- Q.11 Define storage life of rubber material.
- Q.12 What is RSS?
- Q.13 Define mooney viscosity?
- Q.14 Name two Rheometers used in rubber processing.
- Q.15 What is sizing equipment?
- Q.16 State function of roll floating?
- Q.17 Name two types of calendering process.
- Q.18 Give function of spreading process.
- Q.19 State any one application, Where IR cure of vulcanization is used.
- Q.20 Give two equipments used in rubber mix.

- Q.21 Define compression set.
- Q.22 What is cold feed?

## **SECTION-C**

- **Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x5=40)
- Q.23 Define Rapid plastic meter.
- Q.24 Explain die-swell and its control.
- Q.25 Discuss limitations and usefulness of spreading process.
- Q.26 Explain Roto cure and electron beam vulcanization process.
- Q.27 Discuss skim coating and sheeting.
- Q.28 Discuss trouble shooting of extruder operation.
- Q.29 Compare hot feed & cold feed.
- Q.30 State function & layout of ancillary equipments (any one)
- Q.31 Explain LCM process for industrial applications
- Q.32 What is dipping process? Explain its importance.

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