

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

CLASS: BE
BRANCH: CHEM. ENGG.- PLASTICS & POLYMER

SEMESTER: VI
SESSION : SP/2020

SUBJECT : PC6003 ELASTOMER TECHNOLOGY

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
 2. Candidates may attempt for all 30 marks.
 3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. The missing data, if any, may be assumed suitably.
-

- Q1 (a) Define epoxidized natural rubber. List down the advantages of epoxidization. [2]
(b) Describe the process of tapping of natural rubber latex. [3]
- Q2 (a) Contrast the advantages of TSR rubber over conventional NR grades. [2]
(b) Discuss the major application of natural rubber. [3]
- Q3 (a) How RSS is different from Air-dried Sheets and Michelin Sheets? [2]
(b) Discuss about halogenated natural rubber. [3]
- Q4 (a) Why silicone rubber has unique characteristics? [2]
(b) Differentiate between hot & cold SBR. [3]
- Q5 (a) Discuss various curing processes of Hypalon rubber. [2]
(b) How properties of nitrile rubber changes with the content of acrylonitrile? [3]
- Q6 (a) Explain why expected low heat generation under dynamic condition is not found in butadiene rubber? [2]
(b) Interpret why does EPDM rubber considered as saturated rubber? Discuss with its chemical structure. [3]

::: 27/02/2020 :::M