

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 10295 K

Unique Paper Code : 6093012003

Name of the Paper : Tyre Technology

Name of the Course : **B.Sc. (H) Polymer Science**

Semester : VII

Duration : 2 Hours Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **five** questions in all.
3. Question No. 1 is compulsory.

1. (a) Compare rib and lug tread pattern.
(b) Discuss drivability test of tyre.
(c) Explain Animal drone vehicle (ADV) tyre.
(d) List the properties of fabric for tyre applications.

(4×3=12)

P.T.O.

2. (a) Explain the role of curing agents in tyre compounds.
- (b) Write a short note on wire coating systems.
- (c) What are the main components of a tyre? Describe the role of each. (5+ 4+3=12)
3. (a) Illustrate tread compounding.
- (b) Describe rolling resistance test.
- (c) Discuss the criteria for selecting of rubber for different components of tyre. (5+4+3=12)
4. (a) What is heat build-up in tyre? Explain factors influence heat generation.
- (b) Explain the procedure of bead seating test. (6+6=12)
5. (a) Explain the plunger energy test.
- (b) Describe the constructional details of a light truck tyre with a labeled diagram. (6+6 =12)
6. (a) What is the difference between bias and radial tyre building?
- (b) Describe the function of budding drum and curing operations in tyre production. (6+6=12)