

SECTION-C

No. of Printed Pages : 4

Roll No.

126942/116942

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

Q.3 Explain Goodrich flexometer method with neat sketch.

Q.4 Explain the following :

- i) Impulse test
- ii) Sidewall to ply adhesion.

Q.5 Explain flexural, fatigue failure in rubber fabric composite.

Q.6 Explain with neat sketch electric resistivity for test rubber in detail.

Q.7 Explain with diagram the process of testing of tubes.

(60)

(4)

126942/116942

4th Sem. / Rubber Tech.

**Subject : Rubber Testing Characterization
& Quality Control**

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Define Di-electric strength.

b) Expand TGA.

c) Define stress.

d) Describe the purpose of destructive tests.

e) Define thermal conductivity.

f) Name the method to test the endurance of tyres.

g) What is swelling test?

h) Give dynamic properties of rubber.

(1)

126942/116942

- i) What is ply to ply adhesion.
- j) Define thermal ageing.
- k) What is the purpose of crack initiation.
- l) Define bursting strength.
- m) Define resistivity of cables.
- n) Define air permeability testing.
- o) Name two viscometers.
- p) Name two type dependent properties.
- q) What are the units of strain.
- r) What is ozone resistance.
- iv) How will you test the electrical properties of rubber?
- v) Explain breaker/belt ply adhesion.
- vi) Give the importance of heat diffusivity.
- vii) What is De Mattia method?
- viii) Explain drum friction test.
- ix) What is visual inspection?
- x) Describe the method for testing of power transmission belt.
- xi) Explain Di-electric strength test for cables.
- xii) Explain NMR test for rubber.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) Explain the effect of temperature on resilience of rubber.
 - ii) What is the purpose of quality control.
 - iii) What is ozone cracking test?

- xiii) What is the basic concept of statistical quality control?
- xiv) How will you test a finish product?
- xv) Define the terms
 - a) Elastic limit
 - b) Break point

(2) 126942/116942

(3) 126942/116942