

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII(NEW) EXAMINATION – SUMMER 2019****Subject Code:2182602/2182608****Date:13/05/2019****Subject Name:Belts, Hoses & Footwear Technology****Time:10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a) State the importance of calculating the burst pressure for manufacturing the hose. Write its formula for spiraled hose. (03)
- (b) Write about Steel Cord construction for Conveyor Belt. (04)
- (c) Discuss in detail about Water jet Cutting system & Laser beam Cutting System used in manufacturing of rubber footwear. (07)
- Q.2 (a) Short note on 'Shoe Last'. (03)
- (b) Write about the general Compounding for Footwear. (04)
- (c) Discuss in detail about Direct Vulcanisation (DV) process of making footwear. (07)

OR

- Q.2 (c) Discuss in detail about the manufacturing of Canvas Shoes. (07)
- Q.3 (a) Explain the Identification code of three numbers with a letter for Hose. (03)
- (b) Discuss the Test method for Oil Suction & Discharge Hose. (04)
- (c) Describe the different principles used for the fitting of hose couplings in general. (07)

OR

- Q.3 (a) Bend Radius is important factors in Hose Design." Justify the statement (03)
- (b) Write about the manufacturing of steam hose. (04)
- (c) Short Note on General Inspection & Testing of LPG & Welding Hose. (07)
- Q.4 (a) Short note on Mechanical Fasteners. (03)
- (b) Discuss the properties required for conveyor belt in general. (04)
- (c) Explain the Multi-Ply construction of Conveyor Belt. (07)

OR

- Q.4 (a) Explain the term 'Transition Distance'. Establish the relationship between Transition distance & Modulus. (03)
- (b) Discuss the Conveyor Belt properties related to Troughability. (04)
- (c) Explain in detail about Vulcanisation of Conveyor Belt. (07)
- Q.5 (a) Give difference between Overlap method & Butt Joint method used for manufacturing of V Belt. (03)
- (b) Short note on "Repair of Flat belting." (04)

- (c) Discuss the function of each material in a Power transmission belt. (07)

OR

- Q.5 (a) List the main points in cord processing for V-belt. (03)
(b) Describe the cutting process for Raw-Edged V Belt. (04)
(c) Write in detail about Selection of Yarn & Yarn Twisting process for V- belt. (07)

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