

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2018****Subject Code:2152606****Date:20/11/2018****Subject Name:Latex Processing & its application****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) List some additional surface treatments for latex dipped articles. (03)  
(b) Write about the importance of concentration of coacervant solution for manufacturing of latex thread. (04)  
(c) Discuss about the basic sequence of latex – dipping operations in detail. (07)
- Q.2 (a) How gelation occurs in Crown rubber process? (03)  
(b) Give comparison between latex extruded thread and cut thread. (04)  
(c) Name the Equipment used for foam preparation in continuous Dunlop process and explain its working with diagram. (07)
- OR
- Q.3 (c) Describe the technology of Talaly process. (07)  
(a) Explain the term : latex Doubling (03)  
(b) Draw the schematic illustration of mechanical arrangement for conventional latex spreading technique. (04)  
(c) Discuss about the advantages of incorporation of latex with cementitious compositions. (07)
- OR
- Q.3 (a) Mention the basic stages involved in production of non-woven fabric and also name the equipments used for this purpose. (03)  
(b) Explain about latex combining by giving schematic diagram. (04)  
(c) Write about the problems associated with incorporation of lattices in cement. (07)
- Q.4 (a) What do you mean by heat sensitized latex? (03)  
(b) Mention the advantages of latex based adhesives. (04)  
(c) List the basic Adhesion modifiers. Explain the importance of two. (07)
- OR
- Q.4 (a) What do you mean by Positex treatment? (03)  
(b) List some additional additives used in latex based adhesives with their function. (04)  
(c) Discuss about the polymer selection principles for bonding of two non-porous substrates for latex based Adhesive formulation. (07)
- Q.5 (a) Give the effect of latex particle size for latex based surface coatings applications. (03)  
(b) Write the function of following in compounding of latex based surface coatings: (04)  
(i) Cosolvents  
(ii) Biocides  
(c) Explain about Beater addition process for modification of paper with lattices. (07)

OR

- Q.5 (a) List the basic types of polymers used for latex based surface coatings compositions. (03)
- (b) Give the advantages of internal plasticization over external plasticization for latex based surface coatings. (04)
- (c) Name any three paper coating methods using lattices and draw their schematic diagram. (07)

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