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## GUJARAT TECHNOLOGICAL UNIVERSITY

## BE - SEMESTER-VI • EXAMINATION - SUMMER • 2015

Subject Code: 162804 Date:14/05/2015 Subject Name: Technology of Printing – I Time: 10.30am-01.00pm **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. (a) Answer the following OBJECTIVE questions: **07** 0.1 i. The stabilized form of hydro is commercialized as . . ii. Define 'solid content' of thickeners. iii. Rapidogen colours = + \_ iv. State advantages of potassium bicarbonate over sodium bicarbonate in vat printing. v. Define 'redox potential'. vi. Write the function of anthraquinone paste in printing. vii. Give the principle difference between ageing and curing. Enumerate different development methods of rapidogen colours. 07 Classify thickeners based on their source. Enlist and discuss their characteristic **Q.2** 07 (a) properties suitable for printing. Deliberate about colour discharge on direct ground using various suitable dyes. 07 Deliberate the significance and need of following ingredients in printing paste 07 with suitable examples: Defoaming agents, Acid & alkali liberating agents, mild oxidizing agents Describe about the first printed resist method of printing using solubilized vat 0.3 **07** dyes. Discuss the printing of cotton fabric using azoic colours by naphtholate padding **(b) 07** method of direct style of printing. OR Compare the printing results obtained with vat dyes using different thickeners. **07** Q.3 (a) State the detailed process to print mineral khaki colours on cotton fibre fabric. **(b) 07 Q.4** (a) Elaborately explain about Dyed style and Raised style of printing. **07** Introduce steaming. Describe the construction and working of festoon steamer **07 (b)** with neat sketch. OR Give principle, working and construction of roller printing method in depth with **10** 0.4 (a) neat sketch. Write a short note on dischargeability of dyes. **(b)** 04 Deliberate on flash ageing process of printing reactive dyes. **Q.5** 07 (a) Describe about the potash-rongalite method of printing vat dyes on cotton. **07 (b)** OR Explain the principle and techno-chemical aspects involved in two phase method **Q.5 07** (a) of printing vat dyes on cotton textiles. Write the construction of preparing stencil for printing. Discuss the working and 07 method of stencil printing in depth.