

**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.

- Q.1** (a) Answer the following OBJECTIVE questions: **07**
- 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.
- (b) Enumerate different development methods of rapidogen colours. **07**
- Q.2** (a) Classify thickeners based on their source. Enlist and discuss their characteristic properties suitable for printing. **07**
- (b) Deliberate about colour discharge on direct ground using various suitable dyes. **07**
- OR**
- (b) Deliberate the significance and need of following ingredients in printing paste with suitable examples: **07**  
 Defoaming agents, Acid & alkali liberating agents, mild oxidizing agents
- Q.3** (a) Describe about the first printed resist method of printing using solubilized vat dyes. **07**
- (b) Discuss the printing of cotton fabric using azoic colours by naphtholate padding method of direct style of printing. **07**
- OR**
- Q.3** (a) Compare the printing results obtained with vat dyes using different thickeners. **07**
- (b) State the detailed process to print mineral khaki colours on cotton fibre fabric. **07**
- Q.4** (a) Elaborately explain about Dyed style and Raised style of printing. **07**
- (b) Introduce steaming. Describe the construction and working of festoon steamer with neat sketch. **07**
- OR**
- Q.4** (a) Give principle, working and construction of roller printing method in depth with neat sketch. **10**
- (b) Write a short note on dischargeability of dyes. **04**
- Q.5** (a) Deliberate on flash ageing process of printing reactive dyes. **07**
- (b) Describe about the potash-rongalite method of printing vat dyes on cotton. **07**
- OR**
- Q.5** (a) Explain the principle and techno-chemical aspects involved in two phase method of printing vat dyes on cotton textiles. **07**
- (b) Write the construction of preparing stencil for printing. Discuss the working and method of stencil printing in depth. **07**

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