

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER V • EXAMINATION – WINTER - 2012****Subject code: 152802****Date: 12-01-2013****Subject Name: Technology of Dyeing - I****Time: 02:30 pm to 05:00 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** Answer the following **Objective** questions: **14**
- i.** Where is Direct dyes mainly used?
 - ii.** Which after treatment of Direct dye is popular?
 - iii.** What is the function of mordant in dyeing of Basic colours on cotton?
 - iv.** Why do reactive dyes have good wash fastness property?
 - v.** What are bifunctional reactive dyes?
 - vi.** _____ and _____ are the two main steps in azo colour development.
 - vii.** Successful diazotization is indicated by the _____ of final solution and _____ of froth.
 - viii.** Give the major two classes of vat dyes.
 - ix.** What is the function of soaping after dyeing?
 - x.** What are solubilized vat dyes chemically?
 - xi.** Where is sulphur dyes largely used?
 - xii.** What is ring dyeing in denim dyeing?
 - xiii.** _____ % shade is kept for dyeing indigo blue on Denim.
 - xiv.** What are Mineral colours? Which shade is very popular by using Mineral colours?
- Q.2** (a) Show different reactive systems for different reactive dyes. **07**
 (b) Describe the chemistry and properties of Procion colours. **07**
- OR**
- (b) Write a note on 'Stabilized diazotized bases'. **07**
- Q.3** Enlist different dyeing methods of Vat dyes on cotton. Describe in detail about all the methods with their advantages and limitations over one another. **14**
- OR**
- Q.3** Write notes on: 1. Basic dyes 2. Sulphur dyes **14**
- Q.4** What are oxidation colours? Describe method of producing Khaki shades by these colours. Give their advantages and limitations over conventional cotton colours. **14**
- OR**
- Q.4** (a) Describe method of application of sulphatoethyl sulphone dyes on cotton. **07**
 (b) Describe pigment dyeing in detail. **07**
- Q.5** Discuss in detail about the two methods available for dyeing Indigo blue shade on denim. Compare and contrast both these methods. **14**
- OR**
- Q.5** Describe in detail on: 1. Process parameters of Denim dyeing **14**
 2. Dyeing of Indigo + Hydron blue on Denim
