

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- Vth SEMESTER-EXAMINATION – MAY/JUNE - 2012

Subject code: 152802

Date: 02/06/2012

Subject Name: Technology of Dyeing - I

Time: 02:30 pm – 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. Direct Brilliant Blue is more soluble than Congo Red. Justify.
- ii. Explain Dynamic equilibrium.
- iii. For which fastness, Basic dyes are notorious?
- iv. Generally _____ moles of acids are taken for diazotization.
- v. What are fast salts?
- vi. How is the excess of hydro and caustic checked during vat dyeing?
- vii. What are sulphur dyes?
- viii. Give some trade names of solubilized vat dyes.
- ix. Which minerals are used for producing Khaki shade on Drill varieties.
- x. Which catalyst is used for producing Aniline Black colour?
- xi. _____ and _____ methods are used for dyeing Denim.
- xii. Enlist different phases of Indigo dyeing plant.
- xiii. Why is only indigo dye used for producing Blue shade on Denim?
- xiv. What is 'HE' class of dyes?

Q.2 (a) Describe in detail about development of Azoic colours with all process parameters and precautions at each stage. **07**

(b) Discuss direct dye uptake as a function of technological process conditions. **07**

OR

(b) Enlist different after treatments given to Direct dyed cotton fabric. Describe any two popular methods. **07**

Q.3 (a) Explain the chemistry and application of chlorotriazine dyes. Describe the application method of sulphatoethyl sulphone dyes. **07**

(b) Give in a chart form different reactive systems of reactive dyes with their commercial names. **07**

OR

Q.3 (a) Enlist different dyeing methods of vat dyes on cotton. Describe any two methods in detail with their advantages and limitations. **07**

(b) Give stripping method of Reactive dyes and Vat dyes from their dyed fabrics. **07**

Q.4 Write note on: **14**

(a) Basic dyes

(b) Solubilized vat dyes

OR

Q.4 Write note on: **14**

(a) Mineral colours

(b) Sulphur dye defects

Q.5 Give typical working conditions and different phases of Indigo dyeing plant. Also enlist faults and their correction methods during their application method. **14**

OR

Q.5 Describe in detail on: **14**
(a) Sulphur dye combination on Denim
(b) Chain dyeing vis-à-vis Slasher dyeing technique.
