Seat No.: _____ Enrolment No._____

# GUJARAT TECHNOLOGICAL UNIVERSITY

**BE - SEMESTER–VIII • EXAMINATION – SUMMER 2013**

**Subject Code: 182804** **Date: 09/05/2013**

**Subject Name: Quality Control in Wet Processing (Department Elective II)**

**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)** Answer the following OBJECTIVE questions: **07**

**i.** Write the main advantage to implement ISO system in an organization.

**ii.** State the specification to assess washing fastness of cotton fabrics dyed with reactive dyes according to AATCC test method.

**iii.** What is the main purpose to incorporate steel balls / plates to evaluate any fastness property of any kind of textile?

**iv.** What does the ash content of any textile signify?

**v.** Lustre number is dependent on physical state and surface characteristics of textile. True / False, Justify if false.

**vi.** _____ test can be performed to predict the probable rain penetration resistance of fabrics.

**vii.** The permissible limit for oil and wax content for cotton textiles is _____.

**(b)** Enlist various test methods to assess colour fastness of textiles to water. Discuss any two in detail. **07**

**Q.2** **(a)** Answer the following OBJECTIVE questions: **07**

**i.** State various unit operations of wet processing.

**ii.** State important points of process control laboratory to produce a product of laid standards.

**iii.** How are rust stains removed?

**iv.** How can air removal from the pressure kier ensured?

**v.** What is bowing and skewing?

**vi.** How are pin holes formed during peroxide bleaching?

**vii.** Which fibre often shows barriness?

**(b)** Describe in detail the control checks in dyeing in Jigger. Also explain evaluation methods for vat dye bath. **07**

**OR**

| | | | |
|---|---|---|---|
| | **(b)** | Give process control measures during kiering. | **07** |
| **Q.3** | | Describe the detailed test method to evaluate tensile loss occurred due to chlorine retained onto cotton textiles with principle, purpose, instrumentation and other parameters involved. | **14** |
| | | **OR** | |
| **Q.3** | | Introduce blue wool standards for light fastness testing. Discuss the method to evaluate light fastness of any textiles with all the technical parameters involved. | **14** |
| **Q.4** | **(a)** | Explain various defects and their causes & remedies in polyamide dyeing. | **07** |
| | **(b)** | Explain process control measures in continuous dyeing. | **07** |
| | | **OR** | |
| **Q.4** | | Give an overview on various types of faults and their causes & remedies in different methods of polyester dyeing. | **14** |
| **Q.5** | **(a)** | Explain the principle, purpose and detailed method to assess colour fastness to dry cleaning with suitable instrumentation. | **07** |
| | **(b)** | Discuss various process control measures during drying. | **07** |
| | | **OR** | |
| **Q.5** | **(a)** | Discuss the quality control measures in scouring. | **07** |
| | **(b)** | Explain about thermocouples in detail. | **07** |

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