

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) - EXAMINATION – SUMMER 2017****Subject Code: 2172802****Date: 02/05/2017****Subject Name: Computer Aided Designing & Computer Color Matching****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** (a) Explain the terms: Motif Development and Repeat Matching. **07**
(b) Discuss the mathematical steps involved in process of match prediction done by CCMS software. **07**
- Q.2** (a) Describe in brief following terms: Output Devices and Scanning Process. **07**
(b) Describe with proper sketch the merits and demerits of CIE chromaticity diagram. **07**
- OR**
- (b) Explain how database and batch correction in CCM are performed. **07**
- Q.3** (a) Discuss about selection tools and editing tools used in texprint. **07**
(b) What is metamerism? Describe different types of metamerism and its significance in textile industries. **07**
- OR**
- Q.3** (a) What is difference between double beam and dual beam spectrophotometer? Describe with neat diagram working of dual beam spectrophotometer. **07**
(b) Write a brief note on salient features of computer aided textile printing. **07**
- Q.4** (a) Discuss various technical aspects of viewing geometries in CCMS. **07**
(b) Explain with the help of sketch symmetric and asymmetric tolerance. **07**
- OR**
- Q.4** (a) Discuss technical aspects involved in determination of relative strength of dyes with the help CCMS. **07**
(b) Explain with necessary plots the standardization process of illuminant in CCMS. **07**
- Q.5** (a) Show hue circle and discuss about its significance and practical use. **07**
(b) Explain with neat sketch the concepts of reverse optics and normal optics and their application in today's spectrophotometers. **07**
- OR**
- Q.5** (a) Justify the position of HUNTER Lab and CIE Lab system in quantification of color difference. **07**
(b) Describe in detail the process of calculating tristimulus values of a color by CCMS with the mathematical steps involved. **07**
