

GUJARAT TECHNOLOGICAL UNIVERSITY**B.E SEM-VII Examination-Nov/Dec.-2011****Subject code: 172802****Date: 22/11/2011****Subject Name: Computer Aided Designing & Computer Colour Matching****Time: 10.30 am-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) Describe the process of developing & constructing printed designs using any CAD software. **07**

(b) What are the errors with subjective assessment? In this context justify the need for objective assessment of color. **07**

Q.2 (a) Discuss the hardware components used in CAD system used for Textile Designs. **07**

(b) Write a brief note on “Digital printing”. **07**

OR

(b) Explain briefly the steps for developing a dobby design using CAD software. **07**

Q.3 (a) Describe the integrating sphere and optics of spectrophotometer used in CCMS. **07**

(b) Explain the functions of monochromator and photo detectors in spectrophotometer used for CCMS. **07**

OR

Q.3 (a) What are trichromatic co-ordinates? How they can be calculated from tristimulus values? Show the CIE chromaticity diagramme with its merits and demerits. **07**

(b) Explain how “Black body radiation” concept is used in standardization of illuminant. **07**

Q.4 (a) Give only the mathematical steps involved in “Formulation” done by CCMS software. **07**

(b) Justify the position of Kubelka- Munk function in determination of strength of dyes by objective assessment. **07**

OR

Q.4 (a) Show how the equation for color difference DE is derived using basics of co-ordinate geometry. Give the equations in HUNTERLAB system. Discuss the phenomenon of acceptability and perceptibility with suitable examples. **07**

Q.4 (b) Explain the use of color difference measurement for assigning fastness rating using CCMS. **07**

Q.5 (a) What is database? How it is prepared for CCMS? What care should be taken while preparing database? **07**

(b) Explain “555 Shade Sorting” programme and its significance for trade and industry. **07**

OR

Q.5 (a) Discuss PASS-FAIL programme with diagrammatic representation and its industrial significance. **07**

(b) What is “Metamerism”? Discuss in detail the various types of metamerism and its significance in textile industries. **07**
