22672

21222

3 Hours / 70 Marks Seat No. | | | | | | | | |

15 minutes extra for each hour

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following. **10**

a) Define primary colours with example.

b) State features of modern spectrophotometers.

c) Define the term 'Standard Illuminants'

d) State formula for dl & da.

e) Define the term 'Metameric Index'.

f) List inputs required for colour matching application.

g) Define 'Tolarance limits' in CCM.

2. Attempt any THREE of the following. **12**

a) Describe precautions to be taken with respect to spectrophotometer measurements.

b) Describe the steps taken during scanning of physical samples.

c) Differentiate between 'batch correction' and 'recipe formulation' application.

d) Justify the importance of trial dying for recipe formulated by CCM.

P.T.O.

Marks

3. Attempt any THREE of the following. **12**

a) Describe the functions of basic components of spectrophotometer.

b) Identity features and limitations of CIE system.

c) Describe types of metamerism and their significance.

d) Describe procedure to select recipe from the output given by CCM.

4. Attempt any THREE of the following. **12**

a) Describe features of CIE system.

b) Calculate total colour difference and identity tonal difference for the sample having.

	Std.	Sample
L	60	55
a	2.3	1.2
b	1.2	0.8

c) Describe the procedure to evaluate whiteness index using CCM.

d) Describe the working of pass / fails application for colour matching.

e) State the advantages of 'Shade library' application in CCM for various colours.

5. Attempt any TWO of the following. **12**

a) With neat sketch describe construction and Working of reflectance spectrophotometer.

b) With neat sketch of reflectance curve demonstrate

i) Metamerism

ii) Tonal variation in sample and

iii) Variation in depth between sample and standard.

c) Describe procedure to prepare database of colours for recipe formulation application.

Marks

6. Attempt any TWO of the following. **12**

a) Describe process for recipe formation for blended fabrics.

b) Describe tolarance limits and pass / fails application of CCM for coloured fabrics.

c) Describe the method to analyse the dyes samples to find the strength of colour.