

A

B.E./B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APR/MAY 2012
PRINTING TECHNOLOGY BRANCH
FIFTH SEMESTER – (REGULATIONS 2004)
PT373 COLOUR REPRODUCTION

Time: 3 hours

Max. Marks: 100

Answer ALL Questions

PART A (10 X 2 = 20 marks)

1. Define colour.
2. What is metamerism?
3. Define hue, chroma and lightness.
4. What are the types of geometries used in spectrophotometer?
5. What is the role of polarization filter in a densitometer?
6. Draw the tone reproduction curve for a high key image.
7. What are the different methods used to evaluate the colour of ink?
8. What are the effects of multiple internal reflections?
9. Compare between Charge Coupled Device & Photomultiplier Tubes.
10. What is the need for Unsharp Masking (USM)?

PART B (5 X 16 = 80 marks)

11. i) What are the factors to be considered in checking the colour originals? Explain
ii) Explain the additive & subtractive color theory, their merits & demerits and applications
12. a) With neat diagram, explain the working principle of spectrophotometer.
(or)
b) With neat diagram, explain in detail about the color matching experiment and how the tristimulus values are obtained.
13. a) What are the properties of coloured inks? Explain in detail on how to compensate for their deficiencies by positive masking method?
(or)
b) What are the objectives of tone reproduction? Explain in detail on how they are achieved.
14. a) Explain in detail about the proportionality failure and its causes.
(or)
b) Explain in detail about any eight factors that affect the colour reproduction.
15. a) With neat diagram, explain the working principle of drum scanner.
(or)
b) Write short notes on i) colour correction ii) UCR & iii) GCR