



MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

(A constituent unit of MAHE, Manipal)

IV SEMESTER B.TECH. (MEDIA TECHNOLOGY)

END SEMESTER MAKEUP EXAMINATIONS, JULY 2022

SUBJECT: DIGITAL PRINT SYSTEMS [MED 2253]

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.

- 1A. How does Digital Printing differ from Analog printing? Explain.
- 1B. Explain the following in Raster Image Processing:
a. Stages b. Calibration c. Resolution, Screen Angle & Dot Shape
- 1C. With neat diagrams, explain Thermal Transfer and Thermal Sublimation process.
[02 + (01+01+02) + 04]
- 2A. Explain the following:
a. Resolution b. Pixel Dimensions c. Bit Depth d. Dynamic Range
- 2B. With a neat diagram, explain the CTP-DI 'TRUEPRESS 544' concept.
- 2C. Write a note on following proofs: a. Progressive b. Scatter
[02 + 04 + 04]
- 3A. Explain the process of creating a Look-up Table.
- 3B. With neat diagram, explain the working of DCP/32 printing system.
- 3C. Explain the three main digital proofing technologies.
[02 + 04 + 04]
- 4A. Explain the importance of Preflighting and its assistance in workflow.
- 4B. What is workflow integration? What are the driving factors that motivates workflow integration in a digital system? Explain.
- 4C. With neat sketches, explain the following:
a. Gravure cylinder production through ablation
b. Offset platemaking by means of thermal transfer for re-imageable masters with material application/ablation
[02 + 04 + 04]
- 5A. State and explain the requirements of a proofing system.
- 5B. Explain the features of inks and coatings in hybridization.
- 5C. With a neat diagram, explain the CTP-DI concept of '74 KARAT' with its unique features.
[02 + 04 + 04]