



**V SEMESTER B.TECH. (PRINT AND MEDIA TECHNOLOGY)**

**END SEMESTER EXAMINATIONS, NOVEMBER 2019**

**SUBJECT: DIGITAL AND SECURITY PRINTING [PMT 3102]**

**REVISED CREDIT SYSTEM**

**(18/11/2019)**

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

- ❖ Answer **ALL** the questions.
- ❖ Assume the missing data.

- 1A.** Explain the parameters to be considered for Hybridization.
- 1B.** Explain the productions of proofs using Color Management.
- 1C.** With neat diagrams, explain the satellite design (with intermediate drum and direct to paper) press configuration for color printing using Ionography.
- [ 02 + 04 + 04 ]**

- 2A.** Explain the process of finding/calculating exposure sweep in RIP.
- 2B.** What factors will affect the scanning process for the following image and how? Explain.



- 2C.** With neat sketches, explain the concept of re-imageable masters for:
- a.** DICO-WEB Litho      **b.** DICO-WEB Gravure

**[ 02 + 04 + 04 ]**

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- 3A.** With a neat flow chart, explain the Color Management Architecture.
- 3B.** Explain how Computer to Print systems have revolutionized modern day printing?
- 3C.** Explain the following features of security in printing:
- a.** Watermarks
  - b.** Void Pantographs
  - c.** Logo Dot
  - d.** Optically Variable Devices

**[ 02 + 04 + 04 ]**

- 4A.** Explain the role of substrates in deterring the erasure of documents under security printing.
- 4B.** What is workflow integration? What are the driving factors that motivates workflow integration in a digital system? Explain.
- 4C.** Explain the factors to be considered for designing a security document, package or card.

**[ 02 + 04 + 04 ]**

- 5A.** Explain the typical failure modes in Ink jet process.
- 5B.** Explain the different types of security printing inks.
- 5C.** Explain how hybridization opens new horizons for print fraternity.

**[ 02 + 04 + 04 ]**