



FIRST SEMESTER M.TECH. (PRINTING AND MEDIA ENGINEERING)

END SEMESTER EXAMINATIONS, NOV/DEC 2019

SUBJECT: QUALITY CONTROL AND STANDARDISATION IN PRINTING [PMT 5154]

REVISED CREDIT SYSTEM

(23/11/2019)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** questions.
- ❖ Missing data may be suitably assumed.

1A. What is a media wedge? How do you evaluate a proofing device using media wedge?
Explain in detail.

1B. Explain the calibration procedure & requirements for plate using Harliquin RIP.

1C. Explain the following ink adhesion tests:

- a) Scotch tape test
- b) Heat seal strength

[03 + 03 + 04]

2A. Differentiate between Gracol G7 and ISO method of print calibration.

2B. Give the suitable reasons for the following statements:

- a) Even though after linearization of CtP, one should linearize the plate against output of offset machine.
- b) In offset printing the amount of ink trap is not same for different ink sequence and “wet on wet or wet on dry printing”.

2C. Discuss the various reasons for Tone Value Increase (TVI) in offset printing? explain

[03 + 03 + 04]

3A. What is the necessity of calibrating CtP system? Explain the various steps involved in calibrating a Violet CtP system in detail.

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3B. Explain the term “Ink trapping”. What are the factors that affect this and explain the formula / methods to measure it?

3C. Explain the working principle of ink tack meter and its significance

[03 + 03 + 04]

4A. Explain four test targets used in conventional Ugra plate control wedge in detail

4B. Explain the following print attributes, their importance & standard values.

- a) Print contrast b) Ink trapping c) Solid ink density

4C How does the paper porosity test play an important role in designing a printed product? Explain the testing procedure

[03 + 03 + 04]

5A. Explain the different tests that are conducted for controlling the quality of dampening solution and its ingredients.

5B. Explain the significance of following terms in gracol7.

- a) Highlight Range (HR) b) Shadow contrast (SC) c) Highlight contrast (HC)

5C. With neat sketches explain the following test targets.

- a) Ink coverage target b) Color correction targets

[03 + 03 + 04]