



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

END SEMESTER MAKE-UP EXAMINATIONS, DEC/JAN 2016-17

FLEXOGRAPHY, GRAVURE AND SCREEN PRINTING [PMT 3101]

REVISED CREDIT SYSTEM (27/12/2016)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

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

1A. Describe the components and procedure for pin-register mounting system for liquid photopolymer flexo plate.

1B. Explain the following with respect to screen printing:

- i) Carbonized mesh ii) Aluminum frames iii) Squeegee Camber

1C. i) Describe smoothing bar as a variation in flexo printing with diagram.

ii) Describe the components of gravure press with neat diagram.

[03 + 03 + (02+02)]

2A. Explain the features of the following screen printing dryers:

- i) Wicket dryer ii) Jet air dryer iii) Tunnel dryer

2B. With neat diagrams, discuss the features of pivoting arm and vertical single roll surface rewinders.

2C. i) With neat diagrams, explain ON contact and OFF contact screen printing methods and mention their areas of application.

ii) Compare the 2 methods of air heating used in gravure dryers.

[03 + 03 + (02+02)]

3A. i) Explain the features of 3 types of inline gravure presses.

ii) Describe the features of publication gravure and mention 2 applications.

3B. Explain the construction of a doctor blade. Discuss the 2 doctor blade wiping systems with their advantages and disadvantages.

3C. With neat diagram, discuss the features of sheet-fed flexo inline printer.

[(03+01) + 04 + 02]

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- 4A.** With neat diagrams, explain the features and working of reversing gravure unit and pre-metered gravure wetting system.
- 4B.** With neat diagrams, explain the 3 types of roll follower tension control systems.
- 4C.** Explain the importance of press room safety and precautionary safety measures to be taken in printing industry.

[04 + 03 + 03]

- 5A.** i) With neat diagrams, discuss the 3 types of ESA impression roller designs.
 ii) Explain the causes and remedies for the following gravure print problems;
 a) Blocking b) Streaks
- 5B.** With neat diagrams, explain the foot-print method of determining fountain roller deflection and ways of minimizing it.
- 5C.** Compare Clamshell and Vertical lift screen printing presses.

[(03+02) + 03 + 02]