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MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

A Constituent Institution of Manipal University

III SEMESTER B.TECH (PRINT AND MEDIA TECHNOLOGY)

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

SUBJECT: BASICS OF PRINT MEDIA [PMT 2101]

REVISED CREDIT SYSTEM
(26/12/2016)

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

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

1A. With a neat diagram, describe the multicolor sheet-fed offset press. Explain the multicolor offset printing based on wet and dry trapping.

1B. i. Describe an anilox roll and its importance in flexo printing with its specifications.

ii. Describe the sheet-fed gravure printing unit with neat diagram.

1C. Explain in detail the role of Pre-media department in printing industry.

[04 + (02+02) + 02]

2A. Explain the working principle of stop cylinder bed and swing cylinder bed screen printing press with a neat diagram. Why do you require an OFF-contact on cylinder bed press?

2B. Explain the hybrid technology combining the NIP with another NIP printing with an example.

2C. Draw a CIC gravure press. Describe the configuration and substantiate why it is not practical in gravure industry.

[04 + 03 + 03]

3A. i. Explain the open unit of an offset printing press and compare it with vertical offset printing unit.

ii. Define and describe the parameters of fabric mesh used in screen printing.

3B. Explain the background and foreground printing of bank notes using offset and gravure printing processes respectively.

Reg. No.										

3C. Draw a 4 color stack flexo press, showing two color printing on both sides of the web. Describe how both side printing can be achieved without any auxiliary equipment using stack press. Mention 2 advantages and 2 disadvantages.

[(02+02) + 03 + 03]

4A. Draw a neat diagram of web-fed flexo roll to roll press and explain all the components with their functions.

4B. Which applications need a combination of conventional printing with NIP hybridization? Explain with an example.

4C. Explain the principle of pad printing using open system with neat diagrams.

[04 + 03 + 03]

5A. i. With a neat diagram, define the dry and wet angle of an immersion type gravure wetting system. Explain the consequences of large dry angle.

ii. Distinguish between direct and indirect gravure printing.

5B. i. Explain Ionographic printing process with neat diagram.

ii. Explain the Bubble jet and Piezoelectric inkjet technologies.

5C. Describe 4 effects used to change and move an image using lenticular printing.

[(02+02) + (02+02) + 02]