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# Manipal Institute of Technology, Manipal

(A Constituent Institute of Manipal University)



## III SEMESTER B.TECH (PRINT AND MEDIA TECHNOLOGY)

### END SEMESTER EXAMINATIONS, NOV/DEC 2015

SUBJECT: BASICS OF PRINT MEDIA [PMT 2101]

#### REVISED CREDIT SYSTEM

Time: 3 Hours

MAX. MARKS: 50

#### Instructions to Candidates:

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

- 1A.** Explain the different cylinder arrangements of offset printing with neat diagrams. Mention one application for each. **04**
- 1B.** With neat diagrams, explain the type of gravure printing units used for packaging applications and labels. **04**
- 1C.** Distinguish the features of monofilament and multifilament fabric mesh used in screen printing. **02**
- 2A.** A flexible packaging industry gets an order for **10,000** plastic shopping bags to be printed with 2 colors on both sides. The image size is **14 inches**. The plastic printed should be sealed in the bottom side with a margin of **1 inch** and finished with an oval notch that serve as handle on other side, which requires a margin of **5 inches**. The finishing operations are carried out off press. Identify the printing process and the configuration of the press that can be selected for printing this job. Explain the press configuration with a neat sketch, showing the web path for printing on both sides. What is the print repeat length of this job? **04**
- 2B.** With a neat sketch explain the working of a conventional dampening system on offset presses. Mention the construction and functions of each roller. **03**
- 2C.** Explain the working principle of Electrophotography with neat diagram. **03**

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- 3A.** What is lenticular printing? Explain the process steps and any four effects that can be produced in lenticular printing. **04**
- 3B.** With a neat sketch explain the working of a two color convertible offset perfector. **03**
- 3C.** Explain the working principle of two types of flatbed textile presses with diagrams. **03**
- 4A.** Justify the following statements: **04**
- Gravure inking system with large dry angle cannot be used for long run jobs.
  - Open unit of an offset press helps in achieving ON and OFF impression with one movement of blanket cylinder.
  - Squeegee controls the amount of ink deposition in screen printing.
  - CIC flexo press can be used to print on extensible plastic substrates.
- 4B.** Explain the any three cell structure used on anilox roller and mention their application. **03**
- 4C.** Explain the analog workflow of prepress department with a neat flowchart. **03**
- 5A.** With a neat sketch explain the components of an inline flexo press. **04**
- 5B.** Explain the different configurations of BTB presses with neat diagrams. **03**
- 5C.** List the 3 advantages and 3 disadvantages of gravure printing process over flexographic printing process and justify each. **03**