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**MANIPAL INSTITUTE OF TECHNOLOGY**  
**MANIPAL**  
*(A constituent unit of MAHE, Manipal)*

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

**END SEMESTER EXAMINATIONS, NOV 2018**

**SUBJECT: BASICS OF PRINT MEDIA [PMT 2101]**

**REVISED CREDIT SYSTEM  
 (20/11/2018)**

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

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

**1A.** Describe the principle of conventional printing processes with diagrams.

**1B.** Explain the components of a web-fed flexo press with a neat diagram.

**1C.** With neat sketches explain the following offset cylinder arrangements:

- i. Open unit
- ii. Semi-open unit
- iii. Vertical unit

**[ 04 + 03 + 03 ]**

**2A.** Distinguish between intaglio and gravure processes. Explain the working principle of press used for printing intaglio images.

**2B.** Describe squeegee, its functions and parameters controlling ink deposition.

**2C.** Draw a flow chart showing the workflow of a prepress department equipped with CtP. List and explain all conventional and digital activities performed in this prepress.

**[ 04 + 03 + 03 ]**

**3A.** Describe the process of pad printing. What are the two different systems used for pad printing? Explain with simple sketches.

**3B.** Explain the working principle and ink control parameters of the following with neat diagrams:

- i. Single roll, doctor blade flexo inking system.
- ii. Pre-metered gravure wetting system.

**3C.** Explain the working principles of 3 types of inkjet drop on demand technologies with simple sketches.

**[ 04 + 03 + 03 ]**

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- 4A.** A customer wants to print 1,00,000 poster of A3 size with process color halftone images and text on art paper. Which process is suitable for printing the above job? Select the appropriate type and configuration of press and with neat diagram explain the working principle.
- 4B.** Explain with neat sketch multi-roll ink pyramid design of an offset press.
- 4C.** Compare the services provided by the trade shop and publishing industry.

**[ 04 + 03 + 03 ]**

- 5A.** Explain with neat sketches, the different designs of BTB presses.
- 5B.** Explain the two print head designs of a flat bed screen printing press with their applications. What are the two special flat bed presses used for textile printing?
- 5C.** Explain the different combination of hybrid printing of conventional and digital technologies. List one example for each .

**[ 04 + 03 + 03 ]**