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

IV SEMESTER B.TECH. (PRINT AND MEDIA TECHNOLOGY)
END SEMESTER EXAMINATIONS, APRIL 2018

SUBJECT: OFFSET PRINTING [PMT 2201]

REVISED CREDIT SYSTEM
(19/04/2018)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

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

1A. Describe the following with respect to plate cylinder:

- a. Start of print line
- b. Backlash gear
- c. Ramp
- d. Cylinder undercut

1B. Describe the different types of sheet transport devices used at the sheet-fed delivery with neat diagrams.

1C. Explain the different elements of remote control console of an offset press and the different operations that are controlled via remote control console.

[02 + 04 + 04]

2A. What are the five important functions of a web-fed inking system? Explain.

2B. Explain with neat diagrams the working principle and the sequence of splicing operations of two types of splicers used in unwind unit of web-fed presses.

2C. Discuss the different tension variables and their significance.

[03 + 03 + 04]

3A. For the following data calculate the plate plus packing height and squeeze on bearer contact presses. Plate undercut = 0.056", Plate height above bearers = 0.002", Blanket undercut = 0.08", Blanket height above bearers = 0.003".

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- 3B.** Explain the working principle of the different types of gluers used for in-line finishing of web with simple diagrams.
- 3C.** What is intermittent dampening system? What are the two types of intermittent dampening? Explain with neat diagrams.

[02 + 04 + 04]

- 4A.** What are the two temperature control system requirements of waterless printing? Explain with neat diagrams.
- 4B.** Discuss about the following in the pressroom:
- a. Machine guarding
 - b. Noise exposure and limitations
 - c. Chemical safety
- 4C.** Explain with diagrams different types of sheet detectors used on feed board of a sheet-fed press.

[03 + 03 + 04]

- 5A.** Write a note on care and handling of blankets.
- 5B.** Describe the following problems, list their possible causes and suggest remedies:
- a. Glazing
 - b. Hickeys
 - c. Scum
 - d. Tinting
- 5C.** Explain with a neat diagram, the elements of the combination folder with their working principles.

[02 + 04 + 04]