Reg. No. | | | | | | | | | |

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

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

END SEMESTER EXAMINATIONS, NOVEMBER 2018

SUBJECT: **PACKAGING TECHNIQUES AND PROCESSES** [PMT 4003]

REVISED CREDIT SYSTEM
(28/11/2018)

Time: 3 Hours   MAX. MARKS: 50

Instructions to Candidates:

❖ Answer **ALL** the questions.

❖ Missing data may be suitably assumed.

1A. Which type of closure is commonly used for hot filling baby foods? With a neat sketch explain the construction and working of such closures.

1B. Explain the finishing process used to foil block thermal sensitive printed package with a neat diagram.

1C. Explain the properties of various plastic films used in vacuum metallization.

[(0.5+3.5) + 03 + 03]

2A. Explain the finishing process of applying Braille to printed cartons with a neat sketch.

2B. Explain the working of automatic wet glue labelling machine with a neat sketch.

2C. With a neat diagram explain the construction and features of Roll-on Pilfer-Proof (ROPP) closures.

[04 + 03 + 03]

3A. What are the four methods available for batch coding printed package? Explain each method in detail.

3B. What is the technique used to improve the decorative, aesthetic and high barrier properties of plastic films? Explain such process with a neat sketch.

3C. Explain the construction and working of induction sealed wadded closure with a neat sketch.

[(01+03) + (0.5+2.5) + 03]

4A. With a neat sketch explain the working of piston filler using automated rotary pumps.

4B. With a neat sketch explain automatic application of ungummed labels.

4C. Which type of indirect heat exchanger would you prefer for processing highly viscous product? Explain the working of such heat exchanger with a neat sketch.

[04 + 03 + (0.5+2.5)]

5A. What are the standards available for matching threads on the closure and container? Explain the importance of matching thread profiles with neat sketches.

5B. Explain the layout options available for self-adhesive labels with neat sketches.

5C. Explain four factors influencing the selection of packages with suitable examples.

[(01+03) + 03 + 03]

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