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

VI SEMESTER B.TECH. (MEDIA TECHNOLOGY)

END SEMESTER MAKE-UP EXAMINATIONS, JULY 2022

SUBJECT: PACKAGING TECHNIQUES AND PROCESSES [MED 4056]

REVISED CREDIT SYSTEM

(15/07/2022)

Time: 3 Hours 09:00-12:00 noon MAX. MARKS: 50

Instructions to Candidates:

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

Qn no:	*Question*	*M*	*CO*	*BTL*
1	Discuss the 3 options for proofing.	3	1	1
2	Explain the process of dry lamination with neat diagram. Also, explain its applications.	3	1	3
3	Explain 4 methods of providing tamper evidence to the closures.	4	3	2
4	Discuss different ways of performing in-line inspection of printed materials.	3	1	2
5	With neat diagram, explain the working and parts of auger filler.	3	4.	3
6	With neat diagrams, compare the process of manufacturing sachets using vertical form-fill-seal machines and horizontal form-fill-seal machines, along with their features.	4	4	2
7	Explain the 2 methods of filling solid discrete materials by count. Also, distinguish between top and bottom filling of products in a bottle.	3	4	1
8	With neat diagram, explain the working principle, components and features of a Vertical form-fill seal machine.	3	4	1
9	With neat diagram, explain the process of hot-foil stamping along with its advantages and disadvantages.	4	1	1
10	With neat sketches, explain the features of lug closure and crimped crown closure.	3	3	1

11	Discuss various factors influencing the quality and efficiency aspects of a packaging machinery.	3	4	1
12	Explain the process of metallization with neat diagram. Discuss the features of metallized substrates.	4	2	2
13	With neat sketches, explain the features of 3 types of push-on closures.	3	3	1
14	Discuss the features of child-resistant closures with neat sketches. Also, brief on various tests done on closures.	3	3	1
15	Explain the process of processing aluminium from its mineral ore with neat diagram. Explain how aluminium foil is manufactured from aluminium blocks using continuous casting method with diagram.	4	2	1