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

IV SEMESTER B.TECH. (MEDIA TECHNOLOGY)
END SEMESTER (MAKE-UP) EXAMINATIONS, JULY 2022

SUBJECT: Flexography, Gravure and Screen Printing [MED 2254]

REVISED CREDIT SYSTEM

(27/07/2022)

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

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

Q.	QUESTION	Mark	BTL	CO
1A.	What are the challenges of flexographic printing? Explain. Mention the screen angles used in flexographic printing	3	2	CO1
1B.	Discuss the requirements of packaging and publication flexo presses	3	2	CO1
1C.	Describe the structure of photopolymer flexo plates. Write detailed procedure of preparing them using conventional exposure method	4	2	CO1
2A.	What is dot dipping? Why does such situation occur during flexo printing? Explain. Describe the use of banded anilox roller in flexo industry.	3	3	CO2
2B.	Distinguish between conventional and reverse angle doctor blade systems.	3	3	CO2
2C.	Explain the principle of gravure printing with a neat diagram. List and justify the advantages and disadvantages of gravure process.	4	2	CO3
3A.	Write the detailed procedure of gravure cylinder making using electromechanical engraving process	3	2	CO3
3B.	Describe the CIC press configuration with neat diagram. List its advantages and disadvantages.	3	2	CO3
3C.	Describe applicator type and chambered gravure inking systems with neat diagrams. compare both the inking systems.	4	3	CO3
4A.	What is the requirement of ESA system on gravure presses and explain the principle of ink transfer using ESA system.	3	2	CO3

4B.	Describe with diagram the working principle of transducer systems used for tension control on web-fed presses.	3	2	CO4
4C.	What are the essential components of screen printing? Explain with diagram. Describe the components that contribute in varying the ink deposit on substrates	4	3	CO5
5A.	What are the treatments given to the fabric before stencil adhesion? Describe.	3	2	CO5
5B.	How do you classify flatbed screen printing presses according to the print head design? Explain each of them.	3	2	CO5
5C.	Explain with neat diagram, the working principle of cylinder bed screen printing press and the variations of this press	4	2	CO5