



V SEMESTER B.TECH. (MEDIA TECHNOLOGY)
END SEMESTER ONLINE PROCTORED EXAMINATIONS, FEB 2021
SUBJECT: INDUSTRIAL BOOK BINDING AND PRINT FINISHING [MED 3152]
REVISED CREDIT SYSTEM
(04/02/2021)

Time: 3 Hours

MAX. MARKS: 50

Answer ALL the questions. Missing data may be suitably assumed.

- 1A.** Sheets of **20 cm X 30 cm** to be folded to form a French fold using knife folder. Total no. of copies required by the customer is **10,000**. Which type of feeder to be installed with this folder for processing such jobs? Justify your answer. Explain the principle of this feeder with diagram. How is it benefited to the industry compared to other types of feeders?

[04]

- 1B.** Distinguish between the following (mention two, one-to-one differences):

- i. Sewing and stitching
- ii. Gathering and inseting
- iii. Embossing and foil stamping

[03]

- 1C.** How does machine French sewing differ from hand French sewing? Describe in detail.

[03]

- 2A.** A print order for **24** pages brochure to be soft bound using printed paperback cover. Printer decides to prepare the work in **3** gathered sections halfsheet work imposition. Draw the imposition for each section and the cover showing the positioning of pages.

[04]

- 2B.** Suggest the method of binding and finishing used for the following applications and justify your answer:

- i. Product catalog requiring frequent addition of new product designs.
- ii. Paperback covered magazine for the travelor / commuter
- iii. A diary to be used for the contact details
- iv. A receipt book with triplicates containing 50 receipts

[04]

2C. What are end papers? Why are they used? List the materials used to prepare different types of end papers.

[02]

3A. Describe in detail how the following operations are carried out and mention their purpose:

- i. Manual rounding and backing
- ii. Machine nipping and smashing

[04]

3B. A4 size sheets are folded using buckle folding unit consisting of 4 folding modules, where, **1** and **3** are upward modules and **2** and **4** are the downward modules. The position of buckle stops are set at **3/4th**, **1/4th** and **1/4th** of sheet size in module **1**, **2** and **4** respectively. The module **3** is isolated using deflector. Answer the following questions related to the above job order.

- i. Identify the end product (folder) produced using the buckle folding unit and draw a simple diagram of the product.
- ii. Describe the roller gap for the feed rollers and folding rollers for the modules in use.

[03]

3C. Describe the importance of a good warehousing in a printing industry.

[03]

4A. Books containing **10** sections of **64** pages to be adhesive bound with printed paperback covers. Customer demands the books to be of lay flat and has long shelf life. Suggest and describe the different operations to be carried out on a perfect binding machine with the use of required type of consumables to process this order that satisfy the customer demand.

[04]

4B. A printing industry receives an order to print and bind kids reading books of **80** pages. The manager plans for **5** sections and recommends to issue ISO **RA1** size papers to print using halfsheet work imposition. If **30,000** sheets are required for printing (excluding waste sheets), what is the **quantity** of this print order? If printer uses additional **1,500** sheets as wastes, what is the **% overs** provided to the printer? Also mention the **trim size** of the books produced.

[03]

4C. What do you mean by lining the book spine? Why is it required? What are the materials used for the same? List their characteristics.

[03]

5A. A order for books containg **20** sections of **64** pages to be prepared. The job order contains the following information: Strong full bound hard case binding which allows easy opening of the book. Covering material is leather, should be smooth without any wrinkles/warps/raised areas. Title of the book and author name to be in gold finish on the cover. Square edge book with edges to be decorated with patterns. suggest suitable securing method, forwarding operations to be carried out on the book block with required type of materials, type of end paper to be used and the finishing operations to be carried out to process the above order. Justify your answers.

[05]

5B. A book containing **128** pages in **8** gathered sections need to be tipped with additional **4** plates facing the pages **49, 64, 88, 89, 97** and **118**. Define the sections of the book naming them from **A** to **H** and mention the kinds of plates used with the required method of attachments for each plate.

[03]

5C. Mention the uses of the following in book binding department:

- i. Bodkin
- ii. Laying press
- iii. 5 knife trimmer
- iv. Cotton tape

[02]