

**M. TECH. IN PRINTING ENGINEERING AND GRAPHIC COMMUNICATION
FIRST YEAR FIRST SEMESTER EXAMINATION 2025
STANDARDIZATION IN PRINTING AND PACKAGING**

Time : 3 Hours

Use separate answer script for each part

Full Marks: 100

PART-I (50 Marks)

**Answer any Two Questions from Group-A and
any One Question from Group-B**

Group-A

1. (a) What are the components of heatset web offset press? Discuss in brief
(b) What are the alternative of conventional methods of preparing offset image carrier? Discuss in brief.
(c) Discuss in brief, the different types of folding methods adopted in web offset. 10+6+4=20
2. (a) What are the strengths and limitations of Flexography printing process?
(b) Flexography is not usually adopted for high quality publication printing. Why?
(c) Discuss with schematic diagram the Common Impression type flexography presses along with merits and demerits.
(d) What are the advantages and disadvantages of water-based inks used in flexography?
5+3+8+4=20
3. Discuss in brief, the characteristics of the printed images of the following printing processes:
(a) Offset Printing
(b) Flexography Printing
(c) Gravure Printing
(d) Laser Printing
5x4=20

Group-B

4. (a) What are the strengths and limitations of gravure printing process?
(b) What are the benefits of chromium plating on gravure printing cylinder?
(c) What are the reasons of cell skip and mottling in gravure printing?
5+3+2=10
5. Discuss the capabilities of the following printing processes, according to different types of subject matter such as type matter, fine lines, tone reproduction, solid areas of colour and process colour reproduction :-
(a) Offset
(b) Flexography
5x2=10

[Turn over

Ref. No.: EX/PG/PT/T/113C (Old)

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PART-II (50 Marks)

(Answer any two from Q. No. 1, 2 & 3 and any one from Q. No. 4 & 5)

1. Mention the different types and techniques for standardization process.? Why printing and graphic arts standards is necessary? What are the most important standards for print production?

8+6+6=20

2. What are the applications and uses of Quality Management System (QMS). What is SIPOC model and how it is related to QMS.

10+10=20

3. a)What is process control chart? How the control limits are determined in the chart?
b) What are the steps involved in using Statistical Process Control? Explain.

15+5=20

4. What are the basic elements and tools of TQM to improve the system? Why it is necessary to consider ISO certification for any organization?

10

5. a)How can the categories of problems identified be properly prioritized graphically?
b)Write about Fishbone diagram.

10