

M. TECH. IN PRINTING ENGINEERING AND GRAPHIC COMMUNICATION  
FIRST YEAR FIRST SEMESTER EXAMINATION 2017  
STANDARDIZATION IN PRINTING AND PACKAGING

Time: Three Hours

Use separate answer script for each part

Full Marks 100

**PART-I**

**Answer 50 marks**

1. (a) What are the strength and limitations of Offset Process?  
(b) What are the benefits of introducing Computer-to-Plate unit in an existing plant?  
(c) What are the factors which should be considered to choose whether the job is to be printed using sheet-fed offset or web offset? Discuss. 5+5+10=20
  
2. (a) What are the strength and limitations of Flexography Printing Process?  
(b) Any job having 5% dot area to 95% dot area and fine lines to thicker lines can not be printed in Flexography Process. Why?  
(c) Discuss with sketch the stack type Flexographic presses along with merits and demerits.  
(d) What are the merits of common impression type flexographic press? 5+3+10+2=20
  
3. (a) Discuss in brief, the different types of inks used in flexography printing.  
(b) Two different exposures are given in photopolymer flexo image carrier preparation. Why?  
(c) Discuss with schematic diagram the publication gravure presses. 7+3+10=20
  
4. Discuss in brief, the characteristics of the printed images of the following printing processes:  
(a) Offset Printing  
(b) Flexography Printing 5x2=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
  
6. (a) What are the differences between conventional gravure and halftone gravure?  
(b) What are the limitations of water based inks used in flexography?  
(c) When Electrostatic Assisted (ESA) Ink Transfer is used in gravure printing?  
(d) What is "doctor streaks" in gravure printing? 3+3+2+2=10

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**PART-II**

(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