

Register No.:

**315**

**April 2024**

*Time – Three hours*  
(Maximum Marks: 100)

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.  
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

**PART – A**

1. State the use of kaizen in printing industry.
2. What is TPM?
3. Define stiffness.
4. Mention the uses of grind gauge.
5. Write down any three quality control targets.
6. What is the use of process control chart?
7. Why polarisation filter used in densitometer?
8. What is the difference between input and output profiles?
9. What is ISO standard for printing industry?
10. Define customer satisfaction.

PART – B

11. (a) Explain about DMAIC and DMADV.

(Or)

(b) Explain about 5S concepts adopted in printing industry.

12. (a) Explain about the effect of moisture on paper with diagram.

(Or)

(b) Explain the procedure for testing of ink viscosity by using viscometer with neat sketch.

13. (a) Write short notes on Solid Ink Density (SID), Dot Gain, Print contrast and Ink Trapping.

(Or)

(b) Calculate the X-bar chart and R chart control limits for the given sample data. ( $D3=0$ ,  $D4=2.57$ ,  $A2=1.02$ )

Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
11.1	10.1	9.8	11.3	11.2
9.2	11.2	10.2	10.1	9.4
11.3	9.9	9.9	10.1	8.9

14. (a) Explain about spectro photometer.

(Or)

(b) Describe about the colour management system with neat diagram.

15. (a) Explain about ISO 14001 standards in improving environmental safety.

(Or)

(b) Describe about the types of audits. Also list its benefits.

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