QUALITY CONTROL IN PRINTING INDUSTRY
B.E. PRINTING ENGINEERING
FOURTH YEAR
SECOND SEMESTER EXAM 2018

Time:3hour
Full Marks: 100
Answer any **five** of the following questions:

1. a) Discuss about the improvement phase in six sigma? what is SIPOC?
   b) Discuss the difference between digital and traditional proofer.
   c) Explain about different control chart. [(7+3)+5+5=20]

2. a) What are the parameters considered for ink fly?
   b) Briefly describe about Cause and Effect diagram with example.
   c) Show the change of viscosity with time at constant shear rate and varying shear rate for a thixotropic system. [5+10+5=20]

3. a) Discuss the comparison between Quality Control and Quality Assurance. What is the importance of Quality control in Printing and packaging Industry? What are the factors affecting drying time of an oleoresinous system?
   b)Explain the following dry print performance test for foil and film printing: i) heat resistance , ii) grease resistance and iii) odour and taint
   [10+10=20]

4. Discuss about :
   a. Setting Time
   b.ISO 12647
   c. Halftone digital proofer
   d. Flow Chart [5+5+5+5=20]

5. a)What is the difference between defect prevention and defect detection?
   b)What are the issues in remote proofing document management?
   c) What are the benefits of using 80-20 rule? [5+10+5=20]

6. a)Discuss the drawback of PIRA ink drying time tester.
   b)Briefly explain about Raster Image Processing?
   c)The pH of a conventional water based ink is an important factor-justify it? [5+10+5=20]

7. a)What is the utilization of using standards in Printing Industry?
   b)Explain FMEA and process analysis in six sigma.
   c)Discuss soap and detergent resistance test for paper and paper board? [5+(5+5)+5=20]

8. a)Why is crease resistance test required for board printing?
   b)What is the role of statistical process control tool in quality control?
   c) What are the key elements of six sigma?
   d) Discuss the rheological parameters of oil inks for short term testing?
   [4+3+6+7=20]