

B.E. (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2013
 PRINTING TECHNOLOGY BRANCH
 SIXTH SEMESTER
PT 382 – GRAVURE PRINTING
 (REGULATIONS 2004)

9/12/13

Time: 3 hr

Max Mark: 100

Answer ALL Questions
Part – A (10 x 2 = 20 Mark)

1. List out the different variables of a gravure well?
2. Gravure process is suitable for millions of impression only. Why?
3. Define D.P.H.?
4. How is direct transfer method different from conventional method in gravure printing?
5. Distinguish between soft wiping and hard wiping in gravure printing?
6. Why does the doctor blade oscillate in gravure printing machine?
7. State the need of 'Two side printing unit'?
8. How does modular gravure printing machine advantages over regular gravure printing machine?
9. How can the viscosity of the ink be controlled during the press run?
10. What is known as snowflaking?

Part – B (5 x 16 = 80 Mark)

11. (i) What is balancing? With sketches, explain the different methods of balancing. (8)
 (ii) Briefly explain the different methods adopted to reuse the gravure cylinder. (8)
12. (a) With neat diagram, explain the different steps involved in the preparation of image carrier for gravure printing using Diffusion etch method.
 (or)
 (b) (i) Explain with sketches, the methods that make use of computers in the preparation of image carrier in gravure process (12)
 (ii) State the need to have screen exposure in conventional process and also discuss on the problems likely to occur if screen exposure is not done? (4)
13. (a) (i) List out the types of inking systems used in gravure machine. With neat diagram, explain two of them in detail and discuss their advantages and disadvantages. (10)
 (ii) With diagram, explain the power transmission system in a gravure printing unit (6)
 (or)
 (b) (i) What are the ways by which impression can be achieved between the impression roller and the gravure cylinder and explain them with sketches. (8)
 (ii) Briefly explain the positioning of doctor blade and list out its merits and demerits. (8)
14. (a) What are the types of gravure press configuration? Explain them with neat sketches and state its advantages and disadvantages.
 (or)
 (b) List out and explain the various inline converting operations carried out in a gravure unit.
15. (a) (i) Briefly discuss the major environmental impact on the gravure unit and also suggest the ways to avoid such impact. (10)
 (ii) Explain the different ways of waste disposal in gravure unit. (6)
 (or)
 (b) (i) Discuss the maintenance procedure to be followed for safe running of the press (10)
 (ii) Explain the various quality control aspects to be carried out in gravure printing. (6)