

B.E. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2012
PRINTING TECHNOLOGY BRANCH
SIXTH SEMESTER
PT 382 GRAVURE PRINTING
(REGULATIONS 2004)

Time: 3 hr

Max Mark: 100

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

1. What are the broad product areas in gravure printing?
2. Gravure process is suitable for millions of impression only. Why?
3. What happens if screen exposure is not carried out in gravure process?
4. What are the requirements of a film positive used in gravure process?
5. Why loading has to be applied on the doctor blade in the gravure process?
6. How is the wiping pressure of the doctor blade calculated?
7. What is need of 'Two side printing unit'?
8. How does an infeed coating carried out in gravure press?
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) (i) Explain with neat sketches, the different methods which make use of computers for the preparation of image carrier in gravure process (12)
 (ii) How is direct transfer method different from conventional method in gravure printing? (4)
- (or)**
- (b) With neat diagram, explain the different steps to be followed in the preparation of the image carrier for gravure process using diffusion etch method.
13. (a) (i) With neat diagram, explain the parts of a doctor blade and discuss on its functions. (8)
 (ii) What are the different types of impression systems used in gravure machine and explain them with neat diagrams. (8)
- (or)**
- (b) (i) What are the different types of gravure inking system and explain any three with diagram (10)
 (ii) With neat diagram, explain the power transmission system in a gravure printing unit (6)
14. (a) What are the different types of press configuration in gravure process and explain them with neat diagram stating its merits and demerits.
 (or)
 (b) (i) With sketches, explain the modular rotogravure printing unit and state its merits and demerits. (10)
 (ii) Discuss on "inline solvent less lamination"? (6)
 15. (a) Briefly discuss the various environmental issues that occur in a gravure printing press and also explain the different ways of waste disposal.
 (or)
 (b) List out the needs for maintenance of machines and briefly explain the types of maintenance and specify its advantages and disadvantages.