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B.E. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2013
PRINTING TECHNOLOGY BRANCH
SIXTH SEMESTER

PT 382- GRAVURE PRINTING
(REGULATIONS 2004)

18

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. Why does dynamic imbalance occur during the preparation of gravure cylinder?
3. State the need of using a cross line in gravure process?
4. Define D.P.H.
5. What is known as hard wiping and soft wiping?
6. Why does the doctor blade oscillate during the press run of gravure printing machine?
7. How does modular gravure printing machine advantages over regular gravure printing machine?
8. How does liquids applied on the unprinted side of a web on the gravure press?
9. What are the requirements of a film positive used in gravure process?
10. Why does the web break during print and state its remedial action?

Part – B (5 x 16 = 80 Mark)

11. (i) Explain with neat diagram, the different types of well designs used in gravure process (8)
(ii) Briefly explain the types of process used to reuse the gravure cylinder (8)
12. (a) With neat diagram, explain the different steps to be followed in the preparation of the image carrier for gravure process using diffusion etch method.
(or)
(b) Explain briefly on direct transfer process, electromechanical and laser cutting process.
13. (a)(i) With neat diagram, explain the parts of a doctor blade and discuss on its functions. (8)
(ii) State the reasons for impression roller deflection and explain the ways to avoid deflection (8)
(or)
(b) List out the different types of inking system used in gravure process and explain them with diagram
14. (a) Write notes on two side gravure printing unit, outfeed coating and inline solvent less lamination.
(or)
(b) What are the different types of press configuration in gravure process and explain them with neat diagram stating its merits and demerits.
15. (a) Briefly explain the maintenance procedure on a gravure printing unit and also discuss on the waste disposal methods followed in gravure plant.
(or)
(b) Explain briefly the major environmental impact on gravure printing process and also discuss on the ways to avoid such impact.