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B.E / B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APR/MAY 2013
PRINTING TECHNOLOGY BRANCH
FIFTH SEMESTER – (REGULATIONS 2008)
PT 9301 – PRINTING INKS

14

Time: 3 hr

Max Marks:100

- Instructions:
1. Answer all questions.
 2. All questions carry equal marks.

Part – A (10 × 2 = 20 Marks)

1. Write the properties of pigments used for ink manufacturing (4 points).
2. What are metallic pigments?
3. Write the importance of fluorescent pigments in ink manufacturing?
4. What is non-drying oils? Write their applications in ink formulations.
5. Write the characteristics properties of ketone resins.
6. How ball mills are used to manufacture printing inks.
7. How gloss meter is used for to measure the gloss of an ink?
8. What are security inks? Where they are used ?
9. What are heatset inks?
10. What are EB inks? How it differ from UV inks?

Part – B (5 × 16 = 80 Marks)

11. Briefly discuss the ink drying mechanisms of paste inks used for offset printing.
12. (a) What are drying oils? Classify the types of drying oils and their preparation, properties and applications in ink formulations
Or
(b) Discuss the preparation, properties and uses of the following pigments in ink formulations
(i) Rubines. (ii). Rhodamine B. (iii). Toluidine red. (iv) Benzidine yellow.
13. (a) Briefly discuss the types of the rosin modified resins in ink formulations
Or
(b) Briefly discuss the types of solvents used for the formulation of liquid inks.
14. (a) Write the principle of triple roll mill operations and how are they used for the manufacturing of printing inks.
Or
(b) What is tack of ink? How are they measured using tack meter?
15. (a) Briefly discuss the formulation of waterbased inks. Explain the drying of an ink in detail
Or
(b) Explain the constituent of UV inks. Explain their properties and drying mechanism in detail.