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B.E. / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2011

PRINTING TECHNOLOGY BRANCH

FIFTH SEMESTER

PT 9301 – PRINTING INKS

(REGULATIONS 2008)

Time: 3hrs

Max Marks: 100

Answer ALL Questions

Part - A (10 X 2 = 20 Marks)

1. What are flushed pigments?
2. What are the properties of Semi drying oils?
3. Define Potting?
4. What are the constituents of water based Inks?
5. What are the grinding mediums used in ball mill?
6. Define Gloss.
7. Define Rub resistance.
8. Define Thixotrophy.
9. What is Heat set Ink?
10. What is meant by length of an Ink?

Part - B (5 X16 = 80 Marks)

11. Explain the Ink related problems in printing processes. Discuss their causes and remedies in detail.
12. a. Explain the following resins with their properties and applications. (4X 4 =16)
(i) Epoxy resins (ii) Acrylic resins (iii) Polyamide resins (iv) Nitrocellulose
(Or)
- b. Discuss the following pigments with their properties. (4X 4 =16)
(i) Toluidine red (ii) Benzidine orange (iii) Hansa yellow (iv) Alkali blue
13. a. Explain with suitable diagram how printing inks are manufactured by Triple roll method.
(Or)
- b. Explain the Bead mill method for the manufacture of Liquid Inks.
14. a. What is Tack? Explain how tack values of printing inks are measured.
(Or)
- b. Define viscosity. What are the methods available to measure viscosity? Explain any one method in detail.
15. a. Explain the constituents of UV curable Inks and discuss the drying mechanism in detail.
(Or)
- b. Explain the IR drying mechanism.