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

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PRINTING TECHNOLOGY BRANCH

FOURTH SEMESTER

PT 281 – PRINTING INKS

(REGULATIONS 2004)

Time: 3hrs

Max Marks: 100

Answer ALL Questions

Part - A (10 X 2 = 20 Marks)

1. What are the properties of Pigments?
2. What are all the properties of Natural resins?
3. Define Potting?
4. What are the constituents of water based Inks?
5. What is the grinding medium used in ball mill?
6. Define Gloss.
7. Define Rub resistance.
8. What are Magnetic Inks?
9. What is Heat set Inks?
10. What is meant by length of an Ink?

Part - B (5 X 16 = 80 Marks)

11. Explain the Ink related problems in offset printing their causes and remedies in detail.
12. a. Explain with suitable diagram how printing inks are manufactured by Triple roll method.
(Or)
b. Explain the ball mill method for the manufacture of Liquid Inks.
13. 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.
14. a. Explain the following resins with their properties and applications. (4X 4 =16)
(i) Phenolic Resin (ii) Nitrocellulose (iii) Polyamide resins (iv) Epoxy resins
(Or)
b. Discuss the following pigments with their properties. (4X 4 =16)
(i) Rubines (ii) Diarylide yellow (iii) Rhodamine (iv) Alkali blue
15. a. Explain the constituents of UV curable Inks and discuss the drying mechanism in detail.
(Or)
b. Explain the IR drying mechanism.