

										2/5
--	--	--	--	--	--	--	--	--	--	-----

B.E. / B.Tech (Full Time) DEGREE ARREAR EXAMINATIONS, APRIL / MAY 2012

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 the properties of oils?
3. Define Potting?
4. What are the properties of Liquid Inks?
5. Define Viscosity ?
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 X16 = 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 bead 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) Rosin modified fumaric (ii) Nitrocellulose (iii) Polyamide resins (iv) Epoxy resins

(Or)

- b. Discuss the following pigments with their properties. (4X 4 =16)  
(i) Hansa Yellow (ii) Diarylide yellow (iii) Rhodamine (iv) Alkali blue

15. a. Explain the constituents of EB curable Inks and discuss the drying mechanism in detail.

(Or)

- b. Explain the IR drying mechanism.