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B.E. (Full Time) DEGREE END SEMESTER EXAMINATIONS, Apr 2012

PRINTING TECHNOLOGY BRANCH

IV SEMESTER

PT 9251 Sheet Fed Offset Technology

(REGULATIONS 2008)

Time 3 Hrs.

Max.Marks:100

Answer All Questions

Part A

10x2=20 Marks

1. What is the purpose of gum Arabic?
2. What type of plate graining you would require for trouble free printing and for platemaking?
3. When does a liquid wet a solid surface?
4. What is the R.H. and temperature recommended for a press room?
5. How will you prepare a pile of sheet for trouble free printing?
6. What is a pawl and ratchet mechanism?
7. Name three indigenous and foreign offset machine manufacturers.
8. In a continuous sheet feeder what is the speed at which a sheet having a dimension of 370×520mm has to be accelerated if a machine is running at a speed of 12,000 i.p.h.
9. Why all the three cylinders in an offset printing unit are not aligned in a single line?
10. At 22°C, the air supports a maximum of 18g/m³ of water. If the amount of water vapour present is 8.5g/m³ what is the RH?

Part B

5x16=80 Marks

11. Explain the basic principles on which the offset lithography functions.
12. a.Draw and explain the offset inking system and the factors to be considered.
Or
b.Draw and explain the conventional dampening system and the factors to be considered.
- 13.a.Explain the working principle of a continuous feeder with its drive mechanism.
Or
b.Explain any four types of sheet insertion systems.
- 14.a.Explain the need and functioning of a trip mechanism.
Or
b.Explain the metal printing process and the machine in detail.
- 15.a.Draw and explain different types of sheet transfer systems in a multi colour press.
Or
b.Draw and explain any two types of convertible offset machines.