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B.E. (Full Time) DEGREE END SEMESTER EXAMINATIONS, Apr/May 2013

PRINTING TECHNOLOGY BRANCH

VII SEMESTER - (REGULATIONS 2008)

PT 9027 Printing Machinery Maintenance

24

Time 3 Hrs.

Max.Marks:100

Answer All Questions

**Part A**

10x2=20 Marks

- 1.What is the object of operating an industrial company and how to maximize the same?
- 2.Define maintenance.
- 3.Name a few solid type lubricants and their applications.
- 4.How to evaluate the effectiveness of maintenance planning?
- 5.How to evaluate the frequency of breakdowns?
- 6.How to determine the hardness of a rubber roller?
- 7.Illustrate Equipment record form with relevant information.
- 8.Enumerate six big equipment losses.
- 9.Define downtime cost.
- 10.Define radial runout and cylindricity tolerance.

**Part B**

5x16=80 Marks

11. I.Enumerate the factors having an adverse effect on maintenance efficiency and the need for planning.
12. a. I.Illustrate and explain as to how we could arrive at an optimum maintenance cost.  
II.What is method study?  
Or  
b.Explain the primary and secondary functions of maintenance.
- 13.a.I.Distinguish preventive and predictive maintenance. II.Explain the method of implementing the same.  
Or  
b.I.Define reliability and maintainability. II.A printing and packaging unit has a rotary gravure machine and a coater. The coater could be connected offline or on line. It is found that the auto splicer fails twice for every 200 reels and rewinding unit fails once for every 200 reels in the printing machine. The coater has a reliability figure of 70%. Find the probability of survival of the above system when they are connected offline and online.
- 14.a.I.Explain the method of setting the rollers in an inking system. II.Explain the method of checking and adjusting the cylinders in the printing machine?

Or

b. Find the Overall Equipment Effectiveness of a four colour sheetfed machine operating under the following condition. Suggest methods to increase the same.

Shifts	3
No. of Makereadies @ 60 mins. each	5
Max Speed	15,000 sheets/hr.
Operating speed	11,000 sheets/hr.
Actual prints produced	1,29,000
Sheets wasted	6450

15. a. Explain the need for categorizing the machines. How would you embark upon the same?

Or

b. Effectiveness lies in the balance of Production versus Production capability. Discuss this paradigm and its impact with reference to different types of assets.