

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA IN PRINTING TECHNOLOGY

Semester: 4

Subject Name **PREVENTIVE MAINTENANCE**

Sr.No	Course content
1	INTRODUCTION TO CLEANING AND LUBRICATION IN PRINTING PROCESSES 1.1 Cleaning 1.2 Washing 1.3 Decreasing 1.4 Different lubricants 1.5 Lubrication methods 1.6 Characteristics of lubricants 1.7 Use of lubrication as per manufacturing service manual
2	WEAR IN PRINTING EQUIPMENTS AND MACHINES. 2.1 wear : Type,Causes, and effects 2.2 Friction and its effects 2.3 Wear reduction methods
3	CORROSION AND ITS PREVENTION 3.1 Corrosion factors affecting the corrosion 3.2 Type of corrosion 3.3 Corrosion prevention methods
4	MAINTENANCE OF PRINTING EQUIPMENTS AND MACHINES. 4.1 Type of fault in machine 4.2 Periodic inspection 4.3 Degreasing, cleaning and repairing scheme 4.4 Overhauling of components
5	PREVENTIVE MAINTENANCE OF PRINTING MACHINES. 5.1 Preventive maintenance 5.2 Different maintenance activities 5.3 Advantages 5.4 Two major division of activities 5.5 Program and schedule of preventive maintenance 5.6 Aids to a good preventive maintenance 5.7 Frequency cycle
6	SAFETY IN PRINTING INDUSTRY. 6.1 Accident cause, Type result and control 6.2 Safety awareness 6.3 Safety color code 6.4 Mechanical and electrical hazards 6.5 Methods of safe guarding the machine 6.6 Fire prevention 6.7 Various personal protective equipment

7	ERECTION OF MACHINES AND EQUIPMENTS USED IN PRINTING INDUSTRY. 7.1 Foundation: effect and design foundation materials size and plan of foundation. 7.2 Instruction for erection procedures.
8	ENVIRONMENTAL POLLUTION IN PRINTING INDUSTRY 8.1 Causes of pollution. 8.2 Critical analysis to make the workshop free from environmental pollution.

LABORATORY EXPERIENCE:

1. Prepare lubrication schedule for offset printing machine.
2. Prepare lubrication schedule for plate coating and printing down frame.
3. Prepare preventive maintenance schedule for the offset printing machine.
4. Prepare a planning and maintenance activities for different section of ptg industry.
5. Demonstrate the use of fire fighting equipment.
6. Give situation / accident conditions select the first Aid box.
7. Demonstrate the foundation procedure of machine.
8. Demonstrate the cleaning and degreasing of chain and sprocket, gears and other offset machine parts.
9. Collect information regarding lubrications methods of various offset printing machines and equipments.
10. Attend reported break down machine.
11. Demonstrate the effect of corrosion on various parts of offset printing machine.
12. Demonstrate the effect of wear on various machine parts.
13. Demonstrate and maintenance of electrical and electronic panel board.
14. Demonstrate the prevention of corrosion.

Reference Books:

Sr. No.	Name of Books	Authors
1.	Industrial Maintenance	H. P. Garg
2.	Maintenance for reliability	B. V. S. Rao
3.	Maintenance Engineering Handbook	Higgins & Merron
4.	Maintenance Engineering	H. P. Garg
5.	Maintenance of Machine Tools	Calberg & Packils
6.	Occupational Safety Management & Engineering	Wille, Flammeh