

Bachelor of Printing Engineering Examination, 2025
(4th Year- 2nd Semester)
Print Production Maintenance (Hons.)

Time: 3 hrs

Full Marks: 100

Group - I

Answer the following questions. (30)

1. How does TPM help in maximizing equipment effectiveness? How overall equipment effectiveness is calculated? 8+7
2. What are the steps involved in preventive maintenance? What are the reasons for choosing preventive maintenance? 8+7

or

What are the goals and benefits of Total Productive Maintenance? Explain how TPM can be implemented to avoid six big losses. 8+7

Group - II

Answer the following questions. (40)

3. Where the chain drives are found in Printing Presses? Write down the advantage and disadvantages of chain drives. 4+4
4. Explain the steps of good housekeeping. What are the factors responsible for poor housekeeping? Explain briefly. 4+4
5. Write about different types of gears used in Printing Industry and their maintenance procedure. 5
6. How belt drive can be maintained? How flexography printing can be improved with Direct Drive Technology. 4+4
7. What are the main purposes of lubrication? Which factors are necessary to keep in mind while choosing lubricant? 3+3
8. Explain in detail about the role of sensors and detectors in printing machine. 5

Group - III

Answer the following questions. (10)

9. Differentiate between restoration and preventive maintenance. 5
10. 'For installation and maintenance work variety of instruments are used'- Mention and briefly describe all of them. 5

Group - IV

Answer the following questions. (20)

11. For a particular equipment the following information have been provided:

i	Working hour per day	8 hrs
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[Turn over

ii	Planned down time per day	30 mins
iii	Stoppage losses per day : Breakdown	10 mins
	Setup	10 mins
	Adjustment	20 mins
iv	Output per day	400 items
v	Rate of quality products	98%
vi	Ideal cycle time	0.5 mins/item
vii	Actual cycle time	0.8 mins/item

Calculate loading time per day, Operating time per day, Actual processing time, Availability, Operating speed rate, Net operating rate, Performance efficiency and OEE. 10

12. (a) Write down the importance for test run. Explain in detail about the types of test run used in the printing industry? 5
- (b) How can FMEA be used to identify equipment failures? 5