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## **CODE NO:- Z-8077**

## FACULTY OF ENGINEERING & TECHNOLOGY

 $M.E \ (Mechanical) \ Year \ Examination \ - \ June \ - \ 2015$ 

Maintenance & Reliability Engineering (Elective-I)

		(Revised)	
[Tim	e: 7	Three Hours]	[Max. Marks: 80]
		"Please check whether you have got the right question paper."	
		i) Question no 1 & 6 are compulsory.	
		ii) Solve <u>any two</u> questions from remaining in each section.	
		iii) Assume suitable data if required.	
		SECTION-A	
Q.1		Solve <u>any two</u> .	12
		a) Explain the concept of probability & reliability.	
		b) Explain the reliability management	
		c) Explain failure rate & failure density.	
Q.2		Explain the different types of statistical distribution.	14
Q.3	a)	Explain the fault tree method.	07
	b)	Explain the event tree method.	07
Q.4	a)	Explain the procedure for model selection for component failure.	07
	b)	Explain the design process.	07
Q.5	a)	Explain the reliability allocation.	07
	b)	Calculate the system reliability of configuration shown in figure 01.	07
		i/p 0.9 0.9 0/p $0.7$ $0/p$ figure no-01.	
		SECTION-B	
0.6		Solve any two.	12
		<ul> <li>a) Explain the design for reliability.</li> <li>b) Explain the reliability improvement.</li> <li>c) Explain the maintability &amp; maintenance.</li> </ul>	
Q.7	a)	Explain the term technology.	07
	b)	Explain the basic rules for success.	07
Q.8	a)	Explain the total productive maintenance	07
0.0	b)	Explain in the production on maintenance system a dynamic model.	07
Q.9	a)	Explain the maintenance organization.	07
0.10	b)	Explain the concept of life cycle.	07
Q.10	a)	Explain the basic requirement of maintenance planning & control.	07
	D)	Explain the role of computers in maintenance planning & control.	07