SUBJECT CODE:- 8233
FACULTY OF ENGINEERING AND TECHNOLOGY
M.E.(Mechanical) Examination Nov/Dec 2015
El-1 Maintenance & Reliability Engg.
(Revised)

[Time: Three Hours]   [Max. Marks: 80]

"Please check whether you have got the right question paper."

N.B   i) Q. 1 & Q. 6 are compulsory
             ii) Solve three questions from each section
             iii) Assume suitable data, if required

Section A

Q.1 Solve any two of the following   12
     a)   Explain the pattern of failure
     b)   Explain the reliability management
     c)   Explain the reliability & availability

Q.2 a)   Explain the failure rule failure density MTTT and MTBF   07
     b)   Explain the exponential distribution   07

Q.3 a)   Explain the weibull distribution 2- parameter & 3-parameter in detail.   14

Q.4 a)   Explain the system reliability analysis using reliability block diagram and fault free analysis using suitable   14
          examples

Q.5 a)   Explain the event tree & success tree methods.   06
     b)   Estimate reliability of system shown in fig. 01   08

Fig.1

Section – B
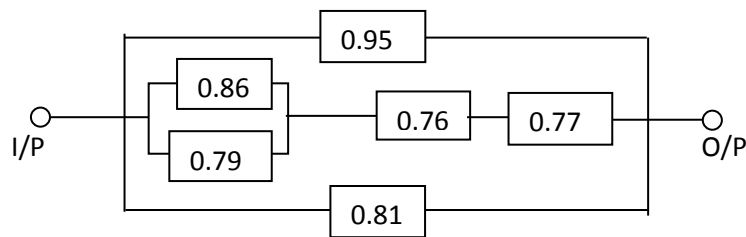
Q.6 Solve any two of the following   12
     a)   Explain the design process
     b)   Explain the reliability allocation method
     c)   Explain the reliability improvement techniques

Q.7 a)   Explain the various types of maintenance   07
     b)   Explain the terro – technology   07

Q.8 a)   Explain the concept of life cycle profit based on maintenance   07
     b)   Explain the condition based maintenance   07

Q.9 a)   Explain the maintenance planning and control   07
     b)   Explain the maintenance procedure for machine   07

Q.10 Write short note on (any two)   14
     a)   Maintainability
     b)   Production maintenance system a dynamic model
     c)   Benefits of maintenance planning

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