Printed Pages : 2 Roll No. EEE053

B.TECH.

THEORY EXAMINATION (SEM–VIII) 2016-17

RELIABILITY ENGINEERING

Time : 3 Hours *Max. Marks : 100*

Note : *Be precise in your answer. In case of numerical problem assume data wherever not provided.*

SECTION-A

1 **Explain the following:** **(10×2=20)**

a) Explain laws of probability.
b) What is significance of standard Deviation?
c) Write Bay's Theorem significance.
d) What is conditional probability?
e) Draw bath tub curve.
f) What is Tie set method?
g) How data is recovered?
h) Write name of any two effective Reliability parameter.
i) Name different Life Test methods.
j) What is Stand by system in Reliability Engineering?

SECTION-B

2 **Attempt any five of the following:** **(10×5=50)**

a) Write Difference between Series and Parallel system.
b) What is possions distribution, what its significance?
c) Write short note on –Development of Logic Diagram, Method of Reliability Evaluation
d) Explain Bay's Theorem for Reliability Test Concepts also write its advantages and disadvantages.
e) What are effects of maintenance also mention its significance.
f) Explain with example Life Test and its requirement.
g) Explain the term Component Redundancy also explains any method to improve.
h) Write different objective of Reliability engineering

SECTION-C

Attempt any two of the following: **(15×2=30)**

3. Explain in detail Markov's Method and frequency distribution method, which method is mostly used in reliability engineering.
4. What is Reliability Test Planning, explain different methods involve in it.
5. Write short note on Data Analysis Procedure, Random No & Data Collection.