

Quiz 3

Only one answer is correct

* Required

1. ID *

2. What is reliability? *

Mark only one oval.

- The probability that a system will operate with failures under lower performance
- The probability that a system will operate without failures for a given time interval
- The probability that a system will operate according to a specific operational profile for a given time interval
- The probability that a system will operate without failures under given conditions for a given time interval
- The probability that a system will operate with failures under given conditions

3. What is the severity of a failure? *

Mark only one oval.

- The user's perception of the failure
- An issue is severe if it is a cosmetic change
- An issue is severe if it must be worked 24 hour a day, 7 days a week until it is solved
- The impact of the failure on the system
- The user's stress for the failure's occurrence

4. What is the major difference between fault and failure? *

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- A failure occurs before deployment and a fault after deployment
- A fault is in design and a failure is in code
- A fault is static and a failure is dynamic
- A fault is dynamic and a failure is static
- There is no difference

5. **What is an operation profile for a system? ***

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- A set of run types that a program can execute along with their probabilities with which they will occur
- A set of probabilities associated to failures that have been occurred in a given time window
- The probability of a run
- The probability of failures in a run

6. **What is a prediction system? ***

Mark only one oval.

- A model inferred from the data and a set of measures to predict future behaviour
- A family of models of different types
- A set of measures with which to compare different types of such models
- A model inferred from the data derived from a family of lines

7. **Which of the following statements is true? ***

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- To prevent faults in requirements include vague terms
- To prevent faults in requirements avoid discussing them with developers
- To prevent faults in requirements avoid dead variables
- To prevent faults in requirements avoid TBD sentences
- None of them

8. **Why hardware and software reliability are different? ***

Mark only one oval.

- In software reliability, most failures are due to testers defects rather than designers
- In software reliability, most failures are due to lack of resources rather than lack of material
- In software reliability, most failures are due to design and implementation defects rather than wear out
- In software reliability, most failures are due to methods of development rather than production

9. **What does a bath tube curve represent? ***

Mark only one oval.

- The number of failures in a system
- The time of failure
- The reliability function of a system
- The density function of the time of failure
- The hazard rate in time

10. In a non-repairable system, what is the expected mean of Time of failure, T *

Mark only one oval.

- The integral of the function " $t \cdot f(t)$ " over the whole domain of the probability density function $f(t)$
- The average of the failure times over a period of time
- The integral of the cumulative distribution function $F(t)$ over the whole domain of the probability density function $f(t)$
- The average of the failures over the whole domain of the probability density function $f(t)$
- The sum over the output set of the function " $t \cdot p(t)$ " over the whole domain of the probability density function $f(t)$
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