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Roll No .....

**MEDI/MTDE-302(C)**  
**M.E./M.Tech. III Semester**  
 Examination, November 2018  
**Safety and Reliability**

*Time : Three Hours**Maximum Marks : 70**Note:* i) Answer any five questions.

ii) All questions carry equal marks.

1. What is Markov Model and how is it different from Hidden Markov Model?
2. What do you understand by "Safety Measurement"? Explain why, when, who and how of it.
3. Write short notes from the following: (Any two)
  - a) Reliability
  - b) Safety
  - c) Quality Assurance
  - d) Quality Audit
4. What is the purpose of Fault Tree Analysis (FTA)? Briefly write on how FTA can be used to identify possible cause of a specified undescribed event in a system.
5. Describe Product Development Cycle and briefly discuss about the role of quality control during various stages of the said cycle.

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6. What are the different methods of measuring reliability? Write short notes on at least one of them.
7. What are the basic elements of a quality control system? And what are the important practical considerations in developing a quality control system, you would like to suggest?
8. Discuss about the need for Preliminary Hazard Analysis (PHA). And briefly explain PHA process.

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