



[Visit Suncam.com for more courses](http://Suncam.com)

Continuing Education Course #153
Decision Making
in Engineering Planning and Design

1. Qualitative methods are preferred in engineering:
 - a. True,
 - b. False.
2. Projects can be evaluated for:
 - a. efficiency,
 - b. effectiveness,
 - c. both of the above,
 - d. none of the above.
3. The categories of conditions for decisions include:
 - a. certainty,
 - b. uncertainty,
 - c. risk,
 - d. all of the above.
4. Linear Programming is associated with decisions under conditions of:
 - a. certainty,
 - b. uncertainty,
 - c. risk,
 - d. all of the above.
5. Linear Programming problem solution methods include:
 - a. graphical technique,
 - b. Simplex Method,
 - c. both of the above,
 - d. none of the above.
6. CPM is used for decisions under Uncertainty:
 - a. True,
 - b. False.
7. In CPM the terms task, activity and event all mean the same thing:
 - a. True,
 - b. False.
8. Both CPM and PERT are used under the same assumed decision conditions:
 - a. True,
 - b. False.

9. Free, Open-Source programs that utilize the Simplex Method are available:
- a. True,
 - b. False.
10. In CPM every event except the start must have a predecessor task/activity:
- a. True,
 - b. False.
11. Decision making under conditions of Risk is the predominant form of decision making:
- a. True,
 - b. False.
12. A “payoff table” can be used for investigating decisions under conditions of Uncertainty:
- a. True,
 - b. False.
13. Enumeration of outcomes can always be used to define probability:
- a. True,
 - b. False.
14. Polling is used in the Delphi Technique:
- a. True,
 - b. False.
15. Enumeration of outcomes and relative frequency approaches to probability provide identical results:
- a. True,
 - b. False.
16. The axiomatic approach to probability uses three fundamental axioms:
- a. True,
 - b. False.
17. The Venn Diagram is a useful tool for visualization of probability concepts:
- a. True,
 - b. False.
18. The intersection of two sets that are mutually exclusive contains no elements:
- a. True,
 - b. False.
19. The union of two sets that are mutually exclusive contains no elements:
- a. True,
 - b. False.
20. Bayes’ Theorem defines conditional probability:
- a. True,
 - b. False.
21. The medical example using Bayes’ Theorem shows that tests with false-positive results can alter medical diagnosis probabilities:
- a. True,
 - b. False.

22. Bayes' Theorem can be used to show that information can have a monetary value:
- a. True,
 - b. False.
23. Expected value is defined as a product of a monetary amount times its probability of occurring:
- a. True,
 - b. False.
24. PERT task/activity estimates are needed for:
- a. minimum time estimates,
 - b. maximum time estimate,
 - c. most-likely time estimate,
 - d. all of the above.
25. PERT assumes task/activities have an underlying "Beta" probability distribution:
- a. True,
 - b. False.

[Purchase this course on Suncam.com](http://Suncam.com)