Quiz 1

Due No due date **Points** 12 **Questions** 10 **Available** Feb 3 at 5:40pm - Feb 3 at 6:05pm 25 minutes **Time Limit** 20 Minutes

Instructions

This quiz contains questions related to the material presented in the initial few lectures and No silver bullet article.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	16 minutes	10 out of 12

ⓘ Correct answers will be available Feb 21 at 12am - Mar 2 at 12am.

Score for this quiz: **10** out of 12
Submitted Feb 3 at 5:56pm
This attempt took 16 minutes.

This quiz contains questions related to the material presented in the slides for the first few lectures and the No Silver Bullet article by Fred Brooks. If you have watched the lectures, reviewed the slides, and read the article, you should do fine!

Question 1

1 / 1 pts

Software engineers view a software system as consisting solely of the source code that is used to generate it.

- ○ True
- ◉ False

That's right. A software system is more than just its source code. Software engineers view a system as a collection of artifacts including requirements and design information, tests, guidelines, etc.

Question 2

2 / 2 pts

Engineering is a sequence of well-defined, precisely-stated, sound steps, which follow a method or apply a technique based on some combination of

- ☐ identifying problems and attempting to solve them all at once
- ☑ theoretical results derived from a formal model
- ☑ rules of thumb based on experience
- ☑ empirical adjustments for unmodeled phenomenon
- ☐ making guesses about scheduling and budgets and then doing whatever we want
- ☐ building bridges and hoping they don't fall down

Question 3

2 / 2 pts

The three core principles of software engineering discussed in Lecture 1 are

- ☐ late-night coding sessions
- ☑ specification
- ☐ pair programming
- ☐ Scrum stand-up meetings
- ☑ iteration
- ☑ translation

Question 4 1 / 1 pts

Fred Brooks defines a silver bullet for software engineering as five management techniques that together increase our ability to generate software twice as fast as we do now.

- True
- False

That's right. According to Brooks, a silver bullet is a single technique that by itself will increase our ability to generate software by an order of magnitude (i.e. ten times faster).

Question 5 1 / 1 pts

According to Brooks, a problem encountered in software engineering is either an essential difficulty or an accidental difficulty.

- True
- False

That's right. Brooks divides the problems facing software engineers into the essential and the accidental.

Incorrect

Question 6 0 / 1 pts

Accidental difficulties account for 90% of the problems that occur during a software development project.

- True
- False

No, Brooks believes that essential difficulties dominate the software development process. Accidental difficulties can sometimes be real problems but they do not typically present the major challenges encountered when developing a software system.

Question 7 1 / 1 pts

Conformity is an essential difficulty since it highlights the problem of having to deal with arbitrary change requests that occur during software development.

- True
- False

That's right. Conformity is the essential difficulty of having to deal with arbitrary change during a software development project.

Question 8 1 / 1 pts

A compiler that takes three hours to compile your large software system is an example of an accidental difficulty.

Answer 1:

accidental

Incorrect

Question 9 0 / 1 pts

Your software life cycle requires a code review at the end of each iteration and these reviews take so long that it pushes your schedule back by two days each time. This is an example of an essential difficulty.

Answer 1:

essential

Question 10 1 / 1 pts

A system passes all of its tests. We can confidently declare the system free of all faults.

- True
- False

That's right. There may still be faults hiding in the system that haven't been executed or that are difficult to manifest and therefore have not yet triggered a visible failure of the system.

Quiz Score: **10** out of 12