Why are operating systems a bigger challenges for software engineers that any other forms of art?

* The liability of operating systems to contain unrepeatable faults
* Operating systems frequently have to be developed for computers which do not have a very large amount of support software in existence already
* Are complex to code having large number of segments
* They need to support a variety of software and hardware

Answers: 1&2

The software engineer wants to make something which works; where working includes satisfying commitments of function , cost , delivery and robustness.

Software engineering should concentrate on the development of, and the exchange of experience about, practical tools such as :

* diagnostic aids
* protected testing facilities
* automatic or semi-automatic fallback
* aids to continuity during development, etc.

Answers: All

What are the various phases of a compiler?

Mention a compiler engineering techniques and give its descriptions.

Answer: Any one out of the three

Ad hoc techniques

* Written in machine language
* Used in most of the compilers.

Table driven techniques

* Table driven techniques included in this broad category are all of the techniques
* Formal description of the language to be compiled with perhaps the semantics of each production using it to parse the source statements

Compiler writing machine

* This set of techniques consists of defining a set of macros or functions in which the compiler is to be written, instead of being written in instructions.
* This presumably turns a general purpose computer into a computer which is  
  better designed to write compilers for, i.e., a compiler writing machine.