

CISP457 Practice Midterm Examination 1

Prof. Tak Auyeung

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Instructions: You may bring any material that is handwritten or printed *prior* to the examination to help you. You can also bring a calculator if you think it may help you. However, you can only use the calculator for numerical computations only.

You, as an individual, are expected to do your own work. This means you cannot seek, receive or otherwise acquire any assistance except clarifications from the professor during an examination. Any communication involving the contents of the subject matter or the examination is considered cheating. Do not initiate or accept such communication, or the result of your examination is automatically voided.

Each correct answer is worth one point, each wrong answer is worth -0.25 point, and each unanswered question is worth zero point.

Make sure you write down your name on the upper right corner *first*, otherwise I cannot give points to anonymous students!

The baseline is XX, there are YY questions.

1 Select a group that needs to know programming languages.

- A Client
- B Systems analysts
- C Quality assurance
- D Technical writers
- E Developers

2 What is the single most important type of document created and maintained by systems analysts?

- A Bug reports
- B Systems specifications
- C Programs written in Cobol, Perl, Java and etc.
- D User's manuals
- E Test plans

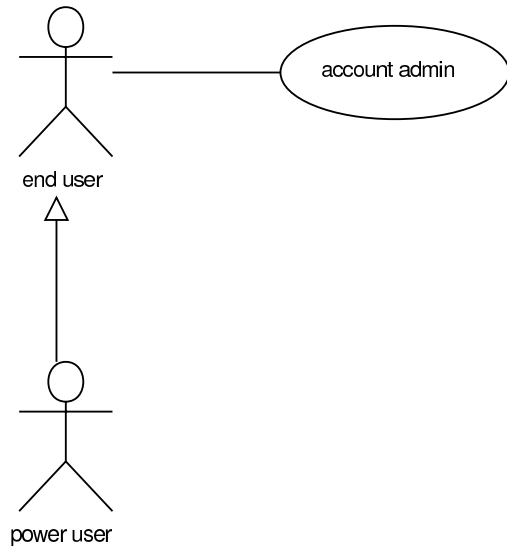
3 Which of the following is a functional requirement?

- A End users be able to check account balance.
- B The system should not have more than 2 hours of down time per year.
- C The system should be delivered and fully operational by August 2007.
- D The system should handle an annual growth of 5% in terms of end users.
- E The security level of the system should be certified annually by XYZ security group.

4 In the context of the UML, what does an actor represent?

- A An actor is an individual end user.
- B An actor is the classification of a group of agents external to the system being modeled.
- C An actor is a class of objects internal to the system being modeled.
- D An actor represents a certain aspect of the system being modeled.
- E An actor represents a table in the database of the system being modeled.

5 In the following use case diagram, assuming it is complete, which element serves no useful purpose?

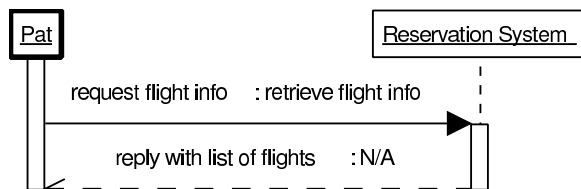


- A only "end user"
- B only "power user"
- C only "account admin"
- D only "power user" and "account admin"
- E all elements in the diagram serve useful purposes

6 Which of the following may be a use case? In other words, which one cannot be ruled out using the rules of thumb as discussed in the class?

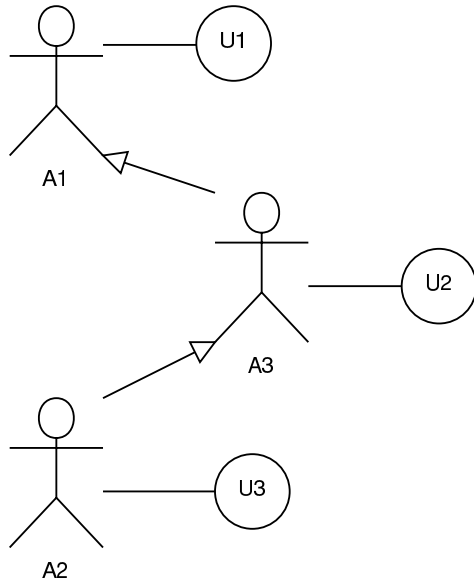
- A log in
- B transcript
- C request transcript
- D student
- E all of the above are ruled out of rules of thumb

7 In the following sequence diagram, which element is an "active" object?



- A Pat
- B Reservation System
- C both Pat and Reservation System
- D neither Pat nor Reservation System
- E there is no such thing as an "active" object in a sequence diagram

8 Observe the following partial use case diagram, and select a statement that is false.



- A A2 can perform U2
- B A1 can perform U1
- C A2 can perform U3
- D A2 can perform U1
- E A3 can perform U3

9 What is the difference between a benefit and a requirement? Choose a statement that is true.

- A A benefit is tangible, but a requirement is not
- B A requirement is functional, but a benefit is not
- C A requirement *must* be met, a benefit is “nice to have”, but not necessary
- D Requirements are ranked in a priority list, benefits are not.
- E A requirement is a benefit, and vice versa.

10 If available, which of the following provides more information than the others (for the purpose of systems evaluation)? Assume all amounts are already inflation adjusted.

- A Average annual cost of operation
- B Total cost of operation over expected system lifespan
- C Average monthly cost of operation
- D Cumulative cost of operation over expected system lifespan
- E All of the above provide the same amount of information

11 What is the category of “cost of annual server maintenance contract”?

- A only “tangible cost”
- B only “recurring cost”
- C only “intangible cost”
- D only “non-recurring cost”
- E “tangible and recurring cost”