

Midterm Exam

406.306 Management Information Systems

Spring, 2007

Date: April 26, 2007

YOUR NAME:

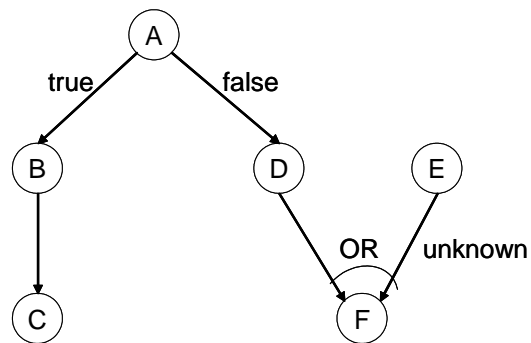
1. (10 points) What would be the eventual form of governance under the electronic market hypothesis? Why?

2. (10 points) What is the legacy problem? Explain the problem characteristics by use of an example.

3. (10 points) What are the expected advantages and disadvantages of extending the 3 tier architecture into the 4 tier through adding business process layer?

4. (10 points) What is the most widely used method for integrating the old terminal based mainframe legacy applications with an EAI platform? And, how does it work?

5. (20 points) Consider the following workflow graph. (Note: Activities B and D are supposed to be executed in parallel.)



5-1. If we do not have DPE (Dead Path Elimination), is there a possibility that the activity “F” is executed later? Justify your answer. (Note: A join condition can be evaluated only after all the incoming transition conditions are evaluated.)

5-2. If we apply DPE at this point, is there a possibility that the activity “F” is executed later? Justify your answer. (Note: DPE makes valuation of all the outgoing transition conditions of dead activities.)

6. (15 points) Discuss the potential problems that can arise when BPMS is used for managing very long running projects such as new product development.

7. (15 points) Consider the following XML schema definition, and give a valid instance of XML document that conforms to the schema.

```
<element name="book">
  <complexType>
    <sequence>
      <element name="title" type="string"/>
      <element name="serial" type="int"/>
      <element name="author" type="authorType" minOccurs="2"/>
    </sequence>
  </complexType>
</element>
<complexType name="authorType">
  <sequence>
    <element name="firstname" type="string"/>
    <element name="lastname" type="string" minOccurs="0"/>
  </sequence>
  <attribute name="SSN" type="ID"/>
</complexType>
```

8. (10 points) List the issues to be addressed for defining a complete business model.