Requirements and Specification, ESOF 328, Spring 2022
Exam 2, March 25   **Name** _____

This exam is to be completed individually without the use of the text, notes, the Internet, or any other items.

1. Business analyst is often a role played, rather than a job title. This role goes by many different names. Which of the following is least likely to be a synonyms for business analyst?   (3 pts.)
   a. Systems analyst
   b. Business analyst
   c. Requirements manager
   d. Requirements engineer
   e. Systems engineer

2. Select the best description for when use case A "extends" use case B.
                                                                                   (3 pts.)
   a. When use case A may or may not include use case B.
   b. When use case B may or may not include use case A.
   c. When use case A always includes use case B.
   d. When use case B always includes use case A.
   e. None of the above.

3. Class diagrams are used to partition a system into classes. Similarly, data flow diagrams are used to partition a system into: (3 pts.)
   a. Scenarios
   b. Objects
   c. Functions
   d. All of the above
   e. None of the above

4. Administrators of System X can create performance criteria associated with outcomes for the programs that they administer.   (3 pts.)
   a. Business rule
   b. User requirement
   c. Functional requirement
   d. Non-functional requirement which is not also a quality attribute
   e. Quality attribute

5. Future enhancements to accommodate other types of conflicts shall not be too
   difficult.   (3 pts.)
          a. Business rule
          b. User requirement
          c. Functional requirement
          d. Non-functional requirement which is not also a quality attribute
          e. Quality attribute

6. For each of the following, give an example business rule that is related to the conflict
   of interest project.   (8 pts.)

   Fact

   Constraint

   Action enabler

   Inferences

7. Describe three substantially different and useful COI System prototypes. Note that this question is only asking about the COI System, not the Etrieve forms.

For each prototype, clearly state its goal and why this would be useful to our class. (Point breakdown for each prototype description:
- 2 point for the prototype being different from the others
- 1 point for the goal of the prototype
- 1 point for the justification of spending the effort to create the prototype)

(12 pts.)

8. The following is from an overview of the Etrieve Flow Designer
   (https://www.softdocs.com/watch-etrieve-flow-overview).
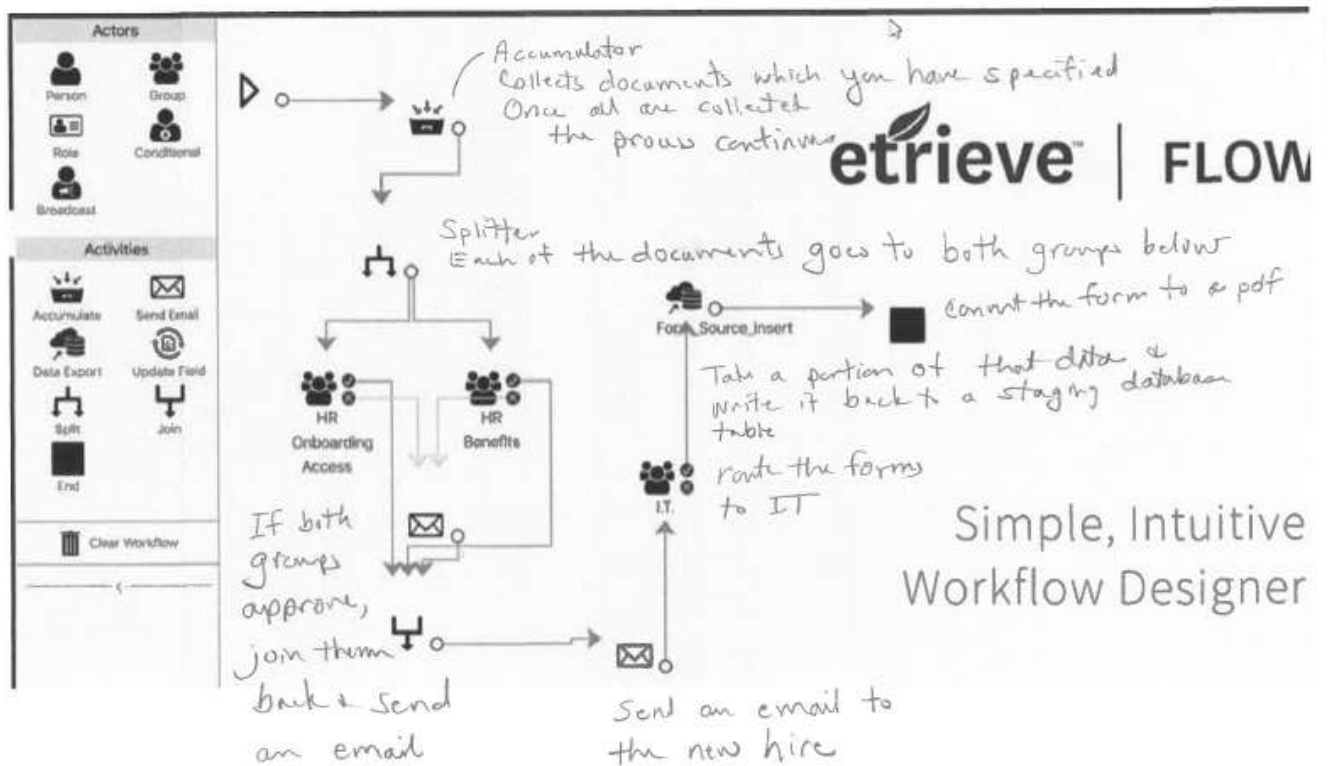
Suggest an appropriate model(s) to use when communicating with the clients concerning
COI Etreive forms. Justify your suggestions. (10 pts.)

9. Describe the difference between COI System information shown in a data model and COI System information shown in a data dictionary. Follow that with a sketch of each, using information that suspect will need to be stored.

    a. Description of the difference: (5 pts.)

    b. Sketch of a data model   (5 pts.)

    c. Sketch of a data dictionary   (5 pts.)

10. Create two context diagrams, one or COI Etreive forms and one for the COI System.

    a.   Context diagram for COI Etreive Forms   (10 pts.)

    b.   Context diagram for COI System   (10 pts.)

11. Create one or more state transition diagrams, that best captures the following
definitions. (20 pts.)

Status of COI form	COI forms can have one of the following distinct statuses: • Not Started: The Person of Interest has not started or modified their form. • In Progress: The Person of Interest has made changed to their form but hasn't submitted it yet. • Submitted: The Person of Interest has signed and submitted the form for review by the Admins. • Pending: A management plan has been created for one or more conflicts, but the Person of Interest has not yet signed their management plan (see the "Created" status of the management plan below). • Complete: The form has been reviewed and signed by an Admin or Auditor.
Status of management plan	Management plans can have one of the following distinct statuses: • No Plan Needed: No conflict exists, so no plan is needed. • In Review: Form is either being reviewed or created by Admins. • Created: The form was created by the COI system or the Admins and exists. • Signed: The form has been signed by the Person of Interest. • Complete: The form has been signed by both the Person of Interest and an Admin or Auditor.