

**(Part 2) Multiple Choice (9 Points – 3 point each)**

- (D) a) Some of the properties of the software development processes are:  
 (A) Practical, measurable, concert Actions, and optimizeable  
 (B) Repeatable, hierarchical, documentable, and tailorable.  
 (C) Procedural, theoretical, and adjustable  
 (D) A & B  
 (E) A, B, & C  
 (F) None of the above
- (E) b) The basic ideas of the CRC Cards are:  
 (A) Create a card for each class  
 (B) Assign a responsibility and attributes to each card  
 (C) Identify collaborations between cards  
 (D) Simulate design scenarios between sets of cards  
 (E) All of the above  
 (F) None of the above
- (D) c) Which of the following is not a valid type of associations  
 (A) Recursive association  
 (B) Attributed associations  
 (C) Binary association  
 (D) Implicit association

**Question (2) Modeling (41 Points): Create three CRC cards (12 Points) and a class diagram (29 Points) of one of the following problems.**

- (1) Create a class diagram for a dinner invitation that includes several dog shows. This model may have the following concepts: guest, host, invitation letter, dog, cook, menu, dinner, kids, entertainment, music, drinks, dog shows, dog food, phone, e-mail system, etc. Develop a software application to model the dinner invitation which include several dog shows. Make sure to have two or more actors. [Hint: no more than 10 classes.]
- (2) Create a class diagram for your favorite neighborhood and make sure to have two or more actors' types, and no more than 10 classes.

**Part 1: (12 Points) Three CRC cards – first one for an actor, second one for a role and third one for a system class – You must include three operations and attributes:**

**Part 2: (29 Points) A class diagram:** Your class diagram should include associations, aggregations, and generalizations. Show multiplicities in your diagrams. You don't need to name attributes and operations with the class diagram. Use association and role names when needed. As you prepare the diagrams, you may add more classes.