

Matr.-Nr.: .....

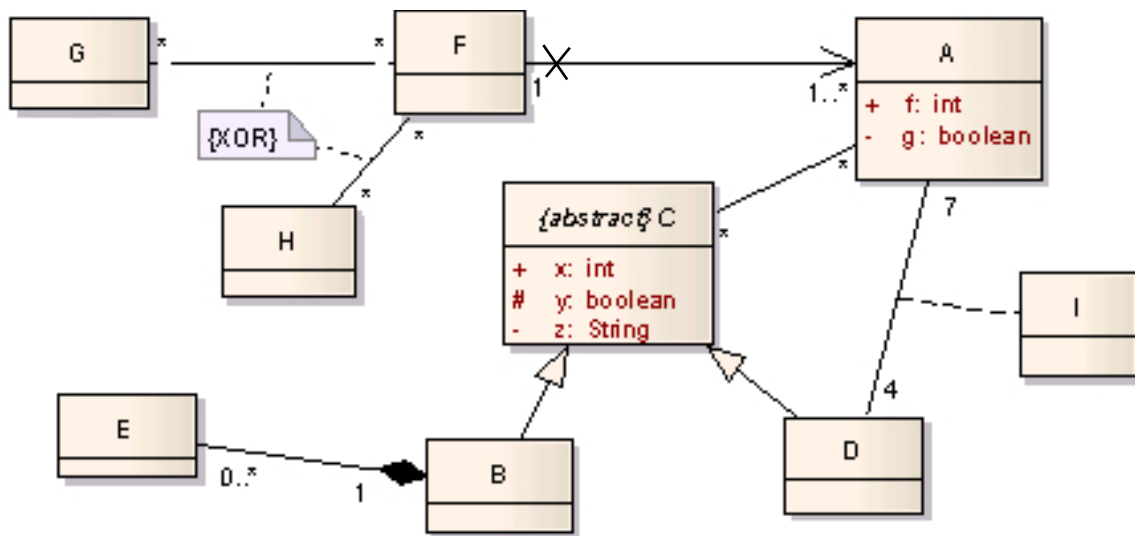
Surname: .....

First Name: .....

Achieved Points: .....

- Evaluation of the Yes/No-questions: correctly answered ⇒ 3 Points; not correctly answered ⇒ -1 Point; not answered at all ⇒ 0 Points;
- You have 30 minutes to complete the tasks.

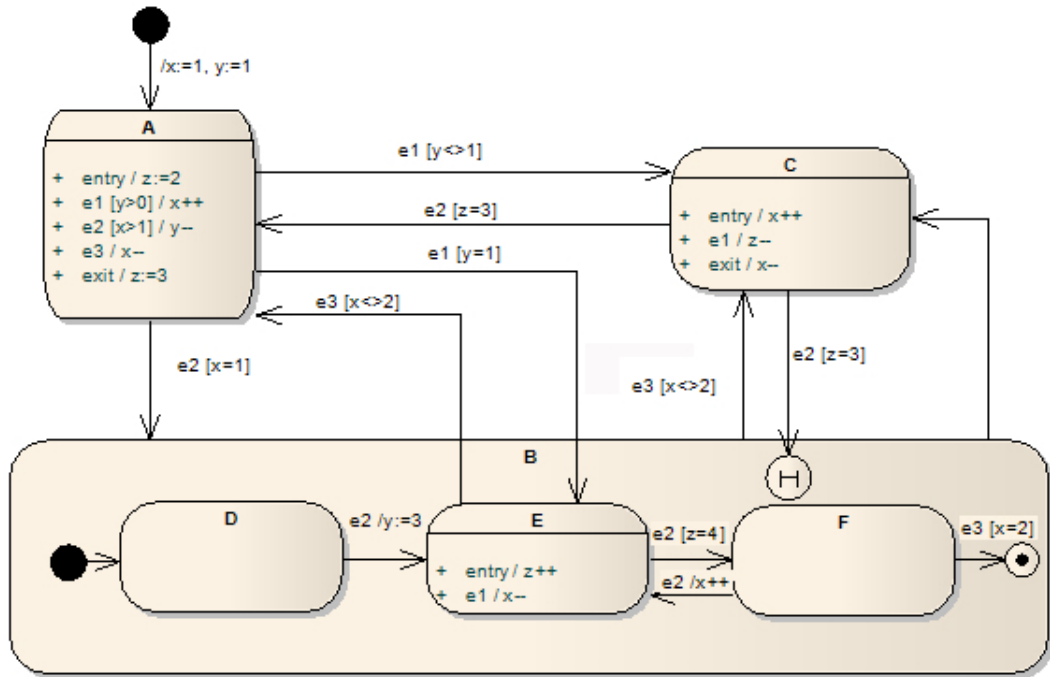
Question 1. Given is the following UML Class Diagram. Which of the statements are correct? (27 Points)



An object of type F is associated to exactly one object of type A.	<input type="checkbox"/> True	<input type="checkbox"/> False
There exist exactly 4 objects of type D, which are associated to exactly 7 objects of type A.	<input type="checkbox"/> True	<input type="checkbox"/> False
An object of type F is associated to an arbitrary number of objects of type G or to an arbitrary number of objects of type H, but not both.	<input type="checkbox"/> True	<input type="checkbox"/> False
Objects of type A and B can directly access attribute y.	<input type="checkbox"/> True	<input type="checkbox"/> False
An object of type E must be contained in an object of type B.	<input type="checkbox"/> True	<input type="checkbox"/> False
An object of type B is associated to an arbitrary number of objects of type A.	<input type="checkbox"/> True	<input type="checkbox"/> False
An object of type B may be associated to 0 objects of type A.	<input type="checkbox"/> True	<input type="checkbox"/> False
An object of type B must be associated to exactly one object of type C.	<input type="checkbox"/> True	<input type="checkbox"/> False
An object of type A is associated to exactly one object of type F and it is navigable from F.	<input type="checkbox"/> True	<input type="checkbox"/> False

Question 2. Event Chain (21 Points)

You are given the following State Diagram:

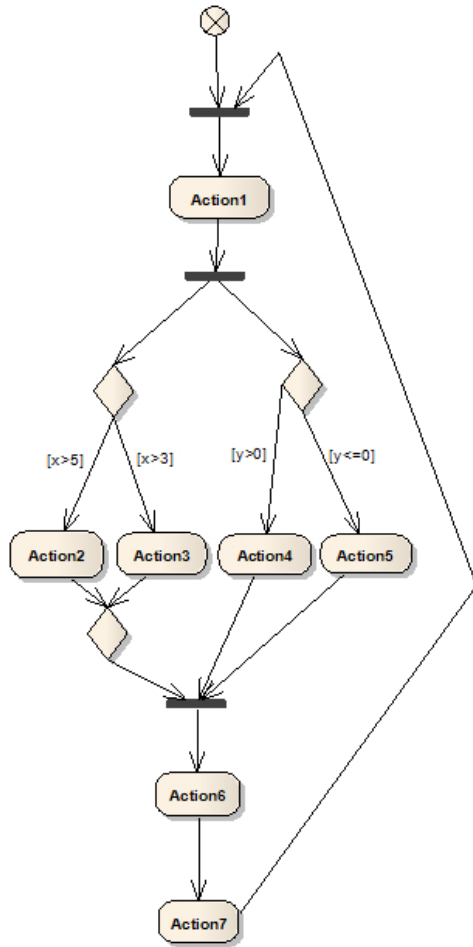


Complete the following table to show, which states and actions occur in the following event chain:  $e1 \rightarrow e2 \rightarrow e3 \rightarrow e1 \rightarrow e2 \rightarrow e3$ .

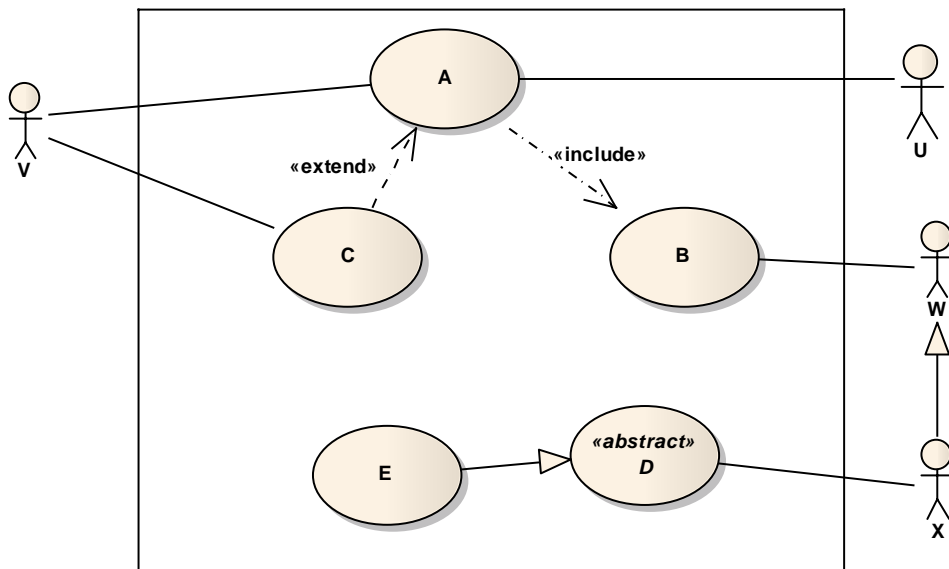
Event	Occured state	Value of variable		
		x	y	z
<i>Beginning</i>				
e1				
e2				
e3				
e1				
e2				
e3				

Question 3. Activity Diagram Error Search (20 Points)

The following Activity Diagram contains at least 4 errors. Find the errors and explain why they are errors.



Question 4. Which statements about the given Use Case Diagram are true/false? (12 Points)



U represents a role.	<input type="checkbox"/> True	<input type="checkbox"/> False
C can only be executed when A is executed.	<input type="checkbox"/> True	<input type="checkbox"/> False
Every time A is executed, C is also executed.	<input type="checkbox"/> True	<input type="checkbox"/> False
X can execute B.	<input type="checkbox"/> True	<input type="checkbox"/> False

Question 5. Sequence Diagram based on Class Diagram (20 Points)

You are given the class diagram for the administration of the games of the EURO 2008. Complete the given Sequence Diagram to show the sequence of operation calls for successfully assigning a card to a player. If an object is created during the interaction, explicitly note the constructor of the object.

