Instructions:
- Your solution should be one single PDF file which you should upload onto MyAberdeen by the established time/deadline. Please do not email us your solution.
- Your PDF file should be named "CS551K-ASMNT1-Day-X-YourSurname-YourName-YourIDNo". For instance, "CS551K-ASMNT1-Day-1-Smith-John-999999.pdf", where Day 1-5 should be the day of the class test in question, and 999999 is your student ID. Please try to make your submission file less than 10MB as you may have issues uploading large files onto MyAberdeen.
- Indicate clearly in your submission which item each solution is for. If we cannot identify this, you may be marked down.

3. (**Working Together**) Given FIPA's AUML for the Contract Net Protocol below (see the full specification at http://www.fipa.org/specs/fipa00029/SC00029H.html):
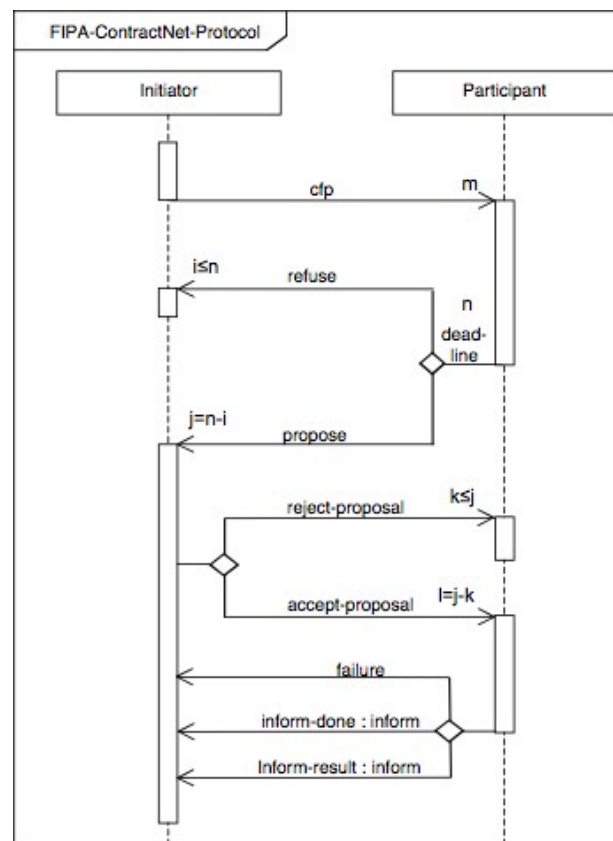
a) Provide an *equivalent representation* of the protocol as a *finite automaton*. Your messages (which should appear as labels on the edges) should be of the form *Sender:Receiver:Message*. (**1 mark**)
b) Provide the pseudo-code for the *initiator*. Notice that the protocol considers one initiator interacting with *m* participants whose unique IDs are known in advance. (**2 marks**)
c) Provide the pseudo-code for the *participant*. The protocol considers all participants communicating with a single initiator. (**2 marks**)