Universiti Malaysia PAHANG	COURSE: FORMAL METHODS			MARKS: /2.5
	TOPIC: Pre-Class		CODE: BCS 2213	
	ASSESSMENT: Quiz 1	NO: 1	DURATION: 1 Hour	

STUDENT'S INFORMATION

MATRIC NO : _____ **Name :** _____

Instructions: Answer all the questions

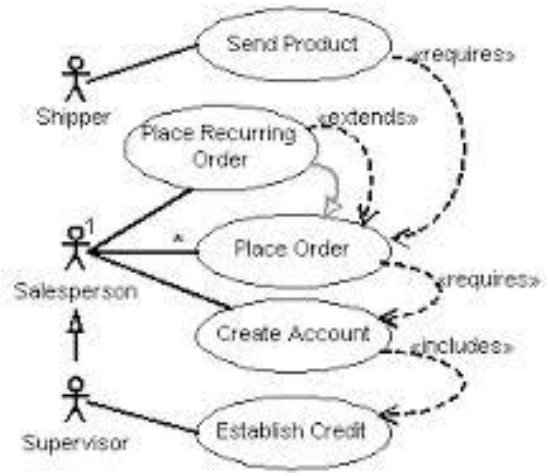
1. In your own words, describe the importance of requirements and specifications in development of a software application.

_____

_____

_____

2. From the following Use Case Diagram, extract 3 possible functional and 3 non-functional requirements.



_____

_____

_____

_____

_____

_____

3. Let A = {1,2,3,4,5}. Which of the following sets are equal to A?

   a. {4,1,2,3,5}
   b. {1,2,4,5,6}
   c. {4,1,2,3,5,5}
   d. {5,4,3,2,1}
   e. {x: x is integer and $x^2 \leq 25$}

4. Let A = {a,b,c,d,e,f} and B = {b,d,r,s}. Find (AUB). Draw a Venn diagram to show the relationship between the two sets.

Universiti Malaysia PAHANG	COURSE: FORMAL METHODS			MARKS: /2.5
	TOPIC: Pre-Class		CODE: BCS 2213	
	ASSESSMENT: Quiz 1	NO: 1	DURATION: 1 Hour	

5. Let A = {a,b,c} and B={d,c,b,e}, find:
   a. A/B
   b. B/A

6. Express each of these statements using quantifiers.
   a. Everybody can greet Fred

   b. No one can greet both Fred and Jerry

   c. Everyone can be greeted by somebody

   d. There is no one who can greet everybody

7. Let
   P =”John is healthy”
   Q = “John is wealthy”
   R = “John is wise”

   Represent as propositional expressions the statements:

   John is healthy and wealthy but not wise.

   John is not wealthy but he is healthy and wise.

   John is neither healthy nor wealthy nor wise.

8. Give the truth table of the following compound statement $(P \vee Q) \rightarrow (P \wedge \neg R)$