BABCOCK UNIVERSITY, ILISHAN -- REMO, OGUN STATE
MATH 101, MID - SEMESTER EXAMINATION, 2014/2015 SESSION
INSTRUCTION: ATTEMPT ALL QUESTIONS, TOTAL MARKS: 15 TIME ALLOWED: 45MINS

**QUESTION ONE**

(i) In a class of 60 students, 22 offered French, 22 offered English, 36 offered History, 8 offered French and English, 10 offered English and History, 12 offered French and History while 6 did not offer any of the three subjects. Represent this information in a Venn diagram

(ii) English and French only

(iii) Only one subject.

(iv) Exactly two subject. (5 marks)

**QUESTION TWO**

(a) Show that $n(A \cup B) = n(A) + n(B) - (A \cap B)$,

(b) Represent the following using Venn diagram

i. A – B, (ii) $A'$ (i.e. A compliment), (iii) $A \subset B$ (5 marks).

**QUESTION THREE**

(a) Using completing the square method solve $ax^2 + bx + c = 0$, hence use your result to solve $x^2 + 6x - 9 = 0$. (5 marks)