```
clc
clear
close all

prompt1 = 'What is the alpha value?: ';
A=input(prompt1);
prompt2 = 'What is the beta value?: ';
B=input(prompt2);
prompt3 = 'What is the gama value?: ';
C=input(prompt3);
Ralpha=[cosd(A) -sind(A) 0;sind(A) cosd(A) 0;0 0 1];
Rbeta=[cosd(B) 0 sind(B);0 1 0;-sind(B) 0 cosd(B)];
Rgama=[1 0 0;0 cosd(C) -sind(C);0 sind(C) cosd(C)];
RAB=Ralpha*Rbeta*Rgama;
disp("QUESTION A:");
disp("Rab=:");
disp(RAB);
disp("det(Rab)=:");
disp(det(RAB));
disp("Rba=inv(Rab)=:");
disp(inv(RAB));
disp("Rba=(Rab)t=:");
disp((RAB)');
disp("QUESTION B:");
ASS_3_b(RAB,B);
disp("QUESTION C:");
PB=[1 0 1];
PA=RAB*PB';
disp("PA=:");
disp(PA);
```