In this work Anthropometrics measurement (weight, body, mass index (BMI), mid upper arm circumstances and thigh circumstances) and serum vitamin B12 folic Acid, iron, copper, zinc, sodium, potassium, total protein, albumin, and blood hemoglobin were estimated in pregnant women from medium and high social background during the three trimesters of gestation and compared to non-pregnant control group. Aiming to investigate the changes of these measurements and nutrients during pregnancy and the effect of the social status of them. The cases studied included 125 pregnant women and 18 non pregnant women who served as control group. All subjects were free of any acute or chronic medical problems. The data showed the presence of changes in the anthropometrics measurements especially during the third trimesters as compared to the non-pregnant control, and that the social background of the selected women affected them slightly. The mean serum vitamin B12 level were not affected by the social status of pregnant non pregnant women, while mean serum total protein and albumin were highly affected by the social status of pregnant women. Mean serum folat levels were decreased during the first and second trimesters of gestation and were stabilized somewhat during the third trimester. Its levels were affected by the social status of the pregnant women especially during first and seconded third trimesters. Mean blood hemoglobin, serum sodium, potassium levels were slightly changed throughout gestation. Mean blood hemoglobin level were affected by the social status of the women throughout the all gestational periods. Mean serum zinc levels were significantly decreased during first trimesters, then plateau and it levels were not affected by the social status of the women. Mean serum copper levels were significantly increased during gestation, and the social status of the non-pregnant women and pregnant women during second and third trimesters affected its levels.