6. CONCLUSION

In the present study, a variety of novel 1-(4-oxo-3-*n*butyl-3*H*-quinazolin-2-yl)-4-(substituted) thiosemicarbazides were synthesized by the condensation of 3-butyl-2-hydrazino quinazolin-4(3*H*)-one with various methyl esters of dithiocarbamic acid.

The results of antimycobacterial activity reveals that the test compounds inhibited the growth of *Mycobacterium tuberculosis* at the micro gram concentration, the test compounds, 1-(4-oxo-3-*n*butyl-3*H*-quinazolin-2-yl)-4-(2-nitrophenyl) thiosemicarbazide **(AS6)**, 1-(4-oxo-3-*n*butyl-3*H*-quinazolin-2yl)-4-(4-chlorophenyl) thiosemicarbazide **(AS7)** and 1-(4-oxo-3-*n*butyl-3*H*-quinazolin-2-yl)-4-(2-pyridyl) thiosemicarbazide **(AS8)** are found to be the most active compounds against *M. tuberculosis* with the MIC of 6µg/ml.

The results of antimicrobial activity against some other gram positive and gram negative bacteria indicates that the compound **AS6** shown most potent activity against *E. coli* and *K. pneumoniae* while the compound **AS7** showed most potent activity against *S. typhi, E. coli, K. pneumoniae, S. enteritidis and B. subtilis* (MIC in the range of 32-63 µg/ml).

The title compounds are also screened for the antimicrobial activity against some other gram positive and gram negative

bacteria by agar dilution method, compounds **AS6 and AS7** showed the most potent activity (MIC in the range of 32-63 µg/ml) against the tested bacteria.