Question 1

John established his first Roth IRA six years ago and has made a total participant contribution of $8,000 so far. Two years ago, he also converted his Traditional IRA assets ($6,000) to his Roth IRA (tax deduction was allowed when he contributed to his Traditional IRA and he has paid tax at the time of conversion). John is now 55 years old.

(a). If John withdraws all the money (including contributions, conversions and earnings) from his account to pay for his son’s college tuition now, is it a qualified distribution and **Why**?

Question 2

1. b) The balance in John’s Roth IRA is $18,500. If John withdraws $18,500 to pay for a vacation, what amount is subject to income tax and what amount is subject to early-distribution penalty obligation?

Amount subject to income tax   $

Amount subject to early-distribution penalty obligation   $

c) The balance in John’s Roth IRA is $18,500. If John withdraws $18,500 from his account to pay for his son’s college tuition, what amount is subject to income tax and what amount is subject to early distribution penalty obligation?

Amount subject to income tax   $

Amount subject to early-distribution penalty obligation   $

Question 3

2. On January 1, Bowie, just reached age 42, has come to you for help in planning his retirement. He works for a bank, where he earned $80,000 annually at the end of last year. It is assumed that his salary will grow by 3% per year and it is paid at the end of each year. Bowie would like to retire when he reaches 62 (20 years from today). He has consistently earned 6% of his investments annually. Assuming he is expected to live 20 years after retirement and he has an expected wage replacement ratio of 80%.

(a). What’s Bowie’s salary right before his retirement? (show your work to get partial credit)

Question 4

(b). What is his first annual retirement need at a wage replacement ratio of 80%?(show your work to get partial credit)

Question 5

(c). How much will Bowie need to accumulate as of the day he retires to adequately provide for his retirement lifestyle, assuming that he needs the retirement funding at the end of each year and there is no inflation for it.

N=, PMT=, i=%,FV=, therefore, the amount Bowie needs to accumulate as of the day he retires is (keep two decimals)

Question 6

(d). What’s the present value of the retirement needs as of today? (show your work to get partial credit).

Question 7

(e). What’s the present value of his future earnings as of today?

N=, PMT=, i=%(keep two decimals), FV=, therefore, the present value of his future earnings as of today is (keep two decimals) 

Question 8

(f). Based on the results in d) and e), what’s his saving rate? (show your work to get partial credit)