Assignment 5

100 Points (Due: 5:00PM Tuesday March. 1)

Assessment Goals: (Different compounding methods and their applications in cash flow analysis with different patterns of transactions; Using EXCEL for verification of results; Calculation accuracy).
Show your work. No round down or up, use 2 decimals for dollar values and 4 decimals for factors. Use formulas only, no tables.

PROBLEM:
For a 35-year major construction project the following information is provided (values in 1000 dollars):

> $4,200 now and yearly initial investment through year 5 decreasing by $200
> $3,900 investment in years 10, 20, and 30
> $4,500 investment to tear down and clean up at the end of project life
> $3,700 revenue from year 5 to 10, decreasing by $300 each year
> $300 monthly revenue between years 11 through 15
> $50 weekly revenue between years 16 through 18
> $10 daily revenue for years 19 and 20
> $3,000 annual revenue in year 21 increasing by 15% yearly through year
>   28, then decreasing annually by a fixed amount to $1,000 on the last
>   year of project life
> $350 revenue from the sale of scraps from project at the end of project life

Annual compounding interest rate of 9.5% is in effect for the majority of project life except for the following years: (WC)- years 16 through 18, (MC)- years 11 through 15, (DC) years 19 and 20, and (CC) years 28 and 29

(1) Find out the future worth of the cash flow at the end of the project (50 pts)
(2) If the project only used annual compounding throughout the life of the project, what would the present worth and the rate of return of the project would be? (40 pts) Verify your answers using EXCEL functions NPV and GOALSEEK (10 pts)