

Course No: ACC 4224  
Course Title: Computer Apps Acc.  
Date: 00/03/2014  
No. of Questions: (1)  
Time: 1hours  
Using Calculator (No)

University of Palestine



2<sup>nd</sup> Mid Term Exam  
Semester 2013/2014  
Total Grade:

Instructor Name: Laila Aldoor  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: Business and Finance  
Dep. / Specialist: Accounting-English  
Using Dictionary (No)

**Question One:**

**(20 Marks)**

Note: open an excel file with your full name and save it on the D Disk at your computer.

- 1- How much will £50,000 invested today in a deposit account grow to by the end of year six if the simple rate of interest is 8 per cent?
- 2- An investment of £30,000 is expected to produce a single cash flow of £47,815 eight years from now. Determine the investment's internal rate of return (**Hint: use the rate formula**).
- 3- An investment of £800,000 is expected to produce a constant annual net cash flow of £244,328 at the end of each of the next five years. Determine the investment's **NPV**, if the required rate of return is 12 per cent, and its **IRR**.
- 4- You decide to invest in an Individual Savings Account (ISA) for the next 10 years. The maximum amount you are allowed to invest in an ISA each year is £3000 and you decide to make **12 equal** ordinary payments to make up this total each year to take advantage of monthly interest payments. How much is this ISA worth after 10 years? How much would an ISA with annual interest payments and a **single** deposit of £3000 each year be worth after 10 years? The annual interest rate for both is 5.75%.
- 5- A zero coupon bond is a bond that pays no interest over its life, only the face value of the bond itself is paid on the redemption date. To find the present value of such a bond, you must use the prevailing interest rate even though the bond itself pays no interest. What is the present value of a zero coupon bond with a face value of £1,000 and a redemption date 10 years from now if the prevailing interest rate is 7%?
- 6- If you put £500 into a new savings account at a bank, how much will be the compounded annual interest rate if you find £1230 in your account after 15 years?
- 7- A mortgage for £250,000 is to be repaid in equal instalments each of £40949.37 including interest on the declining balance of 10%. A) How **many payments** have to be made to write off the mortgage? B) Given results of part A, How much would be the interest rate if the maximum payment that could be afforded is £35000 (**Hint: use goal seek analysis in a new cell**).

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- 8- You are hoping to help plan for your retirement in 30 years time by putting £200 into your account at the beginning of each month to add to your initial deposit of £20,000. The annual interest rate from your bank is 8%, but interest will be paid monthly. First, calculate the total amount you will have amassed by the time you retire. Second, assuming you will receive the previously calculated amount on retirement as a lump sum along with a new interest rate of 10%, what is the maximum sum you could afford to spend each **year** over an expected life following retirement of 25 years without running out of money?
- 9- What would be the semi-annual payment on a £150,000 loan over 30 years if the interest rate is 8% compounded semi-annually? Schedule the loan repayment assuming the semi-annual payment is once due and another time is ordinary.
- 10- **Referring to number 9**, assume that the borrower defaults after completing payment number 30 in the predetermined schedules. The borrower approaches the bank for rescheduling over new terms by revising debit covenants. The remaining loan balance would be scheduled over 20 years semi-annually, with interest rate set at 14% yearly. How much would the new payment be in the ordinary and due cases? (Hint: Reschedule the remaining loan balance at the new payments for both cases).
- 11- An investment of £90,000 is expected to produce a constant net cash flow in perpetuity and offers an expected rate of return (IRR) of 16 per cent. Determine the investment's net present value if the required rate of return is 12 per cent (**bonus question for 2 marks**).

End of Questions  
*Good Luck*