Instructions to ...

Part B – Essay Questions

Answer **only four (04)** questions.

Marks allocation: 80 Marks

1. Find the future value at the end of four years of an investment fund in which \$150 is deposited at the beginning of each quarter for the first two years and \$ 250 is deposited at the beginning of each quarter for the second two years, if the fund earns 12% convertible each quarter .

2. Find the accumulate values of \$6,000 for 10 years with the following interest rates.
   i) 10% compounded annually
   ii) 9.5% compounded monthly
   iii) 9% compounded daily
   iv) 8% continuously

3. Compute the total amount of interest that would be paid on a 2000 loan over a 10 year period, if the effective rate of interest is 9% per annum under the following three payment methods.

   1st method: The entire loan plus accumulated interest is paid one lump sum at the end of 10 years.

   2nd method: The interest is paid each year as accrued and principal is repaid at the end of 10 years.

   3rd method: The loan is repaid by level payments (as an annuity) at the end of each year for the 10 year period.

4. An investment of €1000 is used to make payments of €100 at the end of each year for as long as possible with a smaller payment to be made at the time of the last regular payment. If interest is 7% convertible annually, find the number of payments and the amount of the total final payments.

5. A loan is being repaid by 15 annual payments at the end of each year. The first five installments are $ 4,000 each, the next five are $ 3,000 each, and the final five are $ 2,000 each. The annual effective rate of interest is 5%. Find the value of cash flow immediately after the second $ 3,000 installment.