Dr. Babasaheb Ambedkar Open University

Term End Examination July 2016

Course : BBAIB
Subject code : BBAIB - 105 **Max. Marks: 70**
Subject name : Financial Mathematics **Duration : 03 hours**
Date : **Time :**

Section A

Answer the following (Any Three) 30

1. Discuss on: Future value and Discount value
2. An investor put Rs. 5000 in a saving account that pays 10% simple interest at the end of the year compare how much the investor would have earned after 6 year if the money were
   (1) Invested for 6 years
   (2) Invested for 3 year, than immediately reinvested for a further 3 years.
3. Principal Rs. 10000 Rate 10% p.a. Time 3 years when interest is compound half yearly Determine nominal and effective rate of interest.
4. Write short note: Present value of an Annuity.
5. A two wheeler manufacturing company sells a motor cycle costing Rs. 44000 on installment basis by charging EMI Rs. 4500 for 1 year find flat rate of interest.

Section B

Answer the following (Any four) 20

1. You need Rs. 20000 for buying a motor cycle next year. You can earn 6% on your money. How much do you need to invest today?
2. Write short note:- Immediate annuity and annuity due.
3. Find the present value of an immediate annuity of Rs. 5000 per month for 3 year at 8% p.a.
4. Write short note: Amortization
5. Explain the Object of life table
6. Explain: The elements of life table.

10

Section B

A (MCQ)

1. ……..is a charge or fee paid for the use of borrowed money.
   (a) Interest (b) Principal (c) Time (d) Profit
2. The amount of loan is called as ……..
   (a) Future value annuity (b) Present value annuity (c) Amount of annuity (d) Perpetuity
3. Monthly installment of repayment is called …….
   (a) EMI (b) Interest (c) AMS (d) Bonus
4. ……..is a concise way of showing the probabilities of a member of a particular population living to dying at a particular age.
   (a) Life table (b) Log table (c) Birth rate (d) Death rate
5. The number of persons who are expected to die at the end of a certain period out of a given number of persons.

SAMPLE QUESTION PAPER

(a) Rate of mortality (b) Life rate (c) Expected life (d) Population

B. Do as Directed 10

1. Give the formula of effective Rate.
2. Find the simple interest on an Amount of Rs. 10000 for 5 months at 10% per annum.
3. Give formula for perpetuity.
4. Give difference between EMI and Amortisation
5. Give causes of Death life Table

SAMPLE QUESTION PAPER