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**SUBJECT: BUSINESS FINANCE**

**SUBMITTED TO: MS. MARIUM SALEEM**

**Q1 (A):**

**DATA:**

Pv= 2000, Fv= 4765, K= 8/2= 4%, n=?

**SOLUTION:**

As we know that Pv= Fv×PvIFk,n

2000= 4765 PvIF4%,n

$\frac{2000}{4765}$**=** PvIF4%,n

0.4197= PvIF4%,n

Using the present value table under 4%:

**n= 22 years**

**Q1 (B):**

**DATA:**

PMT= 100, i= 0.1, PvP=?

**SOLUTION:**

As we know that PvP= PMT×$\frac{1}{i}$

PvP=100$\frac{1}{0.1}$

PvP=1000

**Q2 (A):**

**REAL RATE OF INTEREST:**

Real interest rate takes inflation into account to give rate of interest which the investor or lender receives or gives. Real interest rate gives an investor more power on buying.

For Example: My brother deposited Rs.150000 in a bank and the bank has to pay him 15% interest rate on the amount including the inflation of 5% into account. So that 5% will deduct from 15% interest rate. 15% minus 5% will give 10%.This interest rate is called the real interest rate.

**NOMINAL RATE OF INTEREST:**

Nominal interest rate do not take inflation into account. It also refers to the stated interest rate on loan without taking into account any fee or compounding interest.

For Example: If my brother deposits Rs.20000 in saving account and the bank allow him to offer 7% return rate on that amount. This extra return is nominal interest rate.

**Q2 (B):**

The difference between security exchanges and over-the-counter market is that the over-the-counter market does not have physical existence and there is no broker available. There is no responsible person in OTC. While in security exchange there is physical existence of third party and dealing is done in existence of a responsible person.

So, I will prefer security exchange instead of over-the-counter market because of the responsibility and existence of the third person. This is a safe method. The company is registered and will be responsible for my loss. Also I can trace the company in case of any scam.

**Q3 (A):**

**DATA:**

Fv= 40,000,  n=15, K= 10%= 0.1, Pv= ?

**SOLUTION:**

Pv= $Fv/(1+k)^{n}$

Pv= $40000/(1+0.1)^{15}$

Pv= $40000/(1.1)^{15}$

Pv= $40000/4.177248169$

Pv= 9575.681975

**Q3 (B):**

**ANNUITY:**

Annuity can be defined as the making a series of fixed payment over certain period of time.

**ORDINARY ANNUITY:**

An ordinary annuity can be defined as the making a series of payment at the end of each period.

For Example:

Interest payment from bonds and stock dividends are the examples of ordinary due.

**ANNUITY DUE:**

An annuity due can be defined as the making a series of payment at the start of each period.

 For Example:

A rent on a house is the amount given at the start of the month. So, it is considered as annuity due.

The End