**FOUNDATIONS OF FINANCE**

**QUIZ 1 (variant A)**

**Time: 30 minutes Max. Marks 10**

***Instructions for students:***

1. **On the top of the answer sheet write the roll nos. of your immediate neighbours.**
2. **Make suitable assumptions wherever required and clearly state the same.**
3. After graduation, you plan to work for Dynamo Corporation for 12 years and then start your own business. You expect to save and deposit Rs.75,000 a year for the first 6 years (t = 1 through t = 6) and Rs.150,000 annually for the following 6 years (t = 7 through t = 12). The first deposit will be made a year from today. In addition, your grandfather just gave you a Rs.250,000 graduation gift which you will deposit immediately (t = 0). If the account earns 9% compounded annually, how much will you have when you start your business 12 years from now? *3 marks*
4. Rashmi’s parents are saving for her college education. Rashmi just turned 10 (at t = 0), and she will be entering college 8 years from now (at t = 8). College tuition and expenses at a top engineering college are currently Rs.200,000 a year, but they are expected to increase at a rate of 4% a year. Rashmi should graduate in 4 years. Tuition and other costs will be due at the beginning of each school year (at t = 8, 9, 10, and 11).

So far, Rashmi’s parents have accumulated Rs.150,000 in her college savings account (at t=0). Their long-run financial plan is to add an additional **Rs A** in each of the next 8 years (at t=1,2,3,4,5,6,7,8 – end of year investments). They expect their investment account to earn 9%p.a. How large must the annual payments be to cover Rashmi's anticipated college costs? *7 marks*

**Left Roll No\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Right Roll No.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**FOUNDATIONS OF FINANCE**

**QUIZ 1 (variant A)**

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Roll No.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |

**Ans 1**

|  |  |  |
| --- | --- | --- |
| Value at t = 12 of deposits from year 1-6 |  | 1 mark |
| Value at t=12 of deposits from years 7 -12 |  | 1 mark |
| Value of Grandfather deposit at t = 12 |  | ½ mark |
| Total Value of Investment at t=12 |  | ½ mark |

**Ans 2**

|  |  |  |
| --- | --- | --- |
| Value of education at t=8 |  |  |
| Value of education at t=9 |  |  |
| Value of education at t=10 |  | 2marks |
| Value of education at t=11 |  |  |
| Present Value of education at t=8 |  | 2 marks |
| Value of college fund at t=8 |  | 1 mark |
| Annual investment ‘**A**’ needed |  | 2 marks |