



ISRA UNIVERSITY

Islamabad Campus

Department of Electrical Engineering

Program: B.E. (Electrical)

Semester - Fall 2015

HS-321 Engineering Economics & Management

Assignment – 1

Marks: 10

Due Date: 21/03/2016

Handout Date: 16/03/2016

Question # 1:

XYZ limited spent 125k in equal amounts over two years developing a new product, launched after the two years. It will sell for 1k and has a unit cost of 900. Sales are expected of 100, 400, 750, 1100, 1200 units after launch. The company can achieve an investment return of 15% on capital after inflation.

Period	Year	Cash Flow	PVF	Present Value
1	0	-62,500	1	-62,500
2	0	-62,500	0.87	-54,375
3	1	100,000	0.76	76000
4	2	400,000	0.66	264,000
5	3	750,000	0.57	427,500
6	4	1,100,000	0.50	550,000
7	5	1,200,000	0.43	516,000
Total	-	3,425,000	-	1,708,500

According to simple payback period of investment is = 1.1 years approx

According to discounted cash flow payback period is around 1.2 years approx

Discounted cash flow calculates more realistic value

Good Luck