

**Problem 5****BBA (Professional) 2011**

Calculate the net single premium (NSP) and net annual premium (NAP) for 5 years endowment policy of Tk 5000 from the following information:

Age	No. of insured persons	No. of death	Present Value of Tk 1.00 @5%
35	30550	4196	0.952
36	26354	3285	0.907
37	23069	2562	0.864
38	20507	1978	0.823
39	18529	1164	0.784

**Solution:**

Calculate the NSP and NAP for the 5 years endowment policy

year	age	Number of insured person	Number of Death	Amount of claim	PV of Tk 1@ 5%	Present Value of Death Claim/ PV
1	35	30550	4196	5000	.952	19972960
2	36	26354	3285	5000	.907	14897475
3	37	23069	2562	5000	.864	11067840
4	38	20507	1978	5000	.823	8139470
5	39	18529	1164	5000	.784	4562880
Total Present value of death claim						58640625

Number of living person at the end of 5<sup>th</sup> year = (18529 - 1164)

= 17365 persons

Total claim of living person = (17365 × 5000)

= 86825000

Total PV of living claim = (86825000 × .784)

= Tk. 68070800

We know,