TRAINING MANUAL OF BENEFIT COMPUTATION FOR SSNIT STAFF

ACTUARIAL DEPARTMENT

SSNIT BOX MB 149 ACCRA

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1. OLD-AGE RETIREMENT BENEFIT

Old-Age Retirement Benefit is a cash benefit paid to a member of the scheme who has retired from work due to old age.

Types of Retirements

There are two types of retirements under old-age

- Normal (Compulsory) Retirement at age 60
- Early (Voluntary) Retirement at any age from 55 years but below 60 years

Types of Old-Age Retirement Benefits

There are two types of Old-Age Retirement Benefits:

- Old-Age Retirement Monthly Pension
- Old-Age Retirement Lump Sum

1.1 OLD-AGE RETIREMENT MONTHLY PENSION

There are two kinds of Old-Age Retirement monthly pension:

- Full Monthly Pension - as a result of Normal Retirement
- Reduced Monthly Pension - as a result of taking an early Retirement

Qualifying Conditions

To qualify for an Old-Age Retirement monthly pension a member must satisfy two conditions.

(a) Age at retirement condition
(b) Contributions payment period condition

(A) - <u>Age at Retirement Condition</u>

<u>Age at Retirement Condition</u>

Age at Retirement condition is the age at which an Old-Age Retirement benefit (both Old-Age monthly Pension and Old-Age Lump sum) becomes payable.

The age at which a member retires determines the type of Old-Age Retirement monthly pension that the member qualifies for.

<u>Full Monthly Pension</u>

To qualify for a **Full Monthly Pension** a member must retire at an age of:

(i) **60 years** (formal or informal employment).

OR

(ii) **55 years** and has worked in a hazardous employment such as in underground mining, quarries, steel works or any other industry and is <u>likely to contract industrial diseases</u> as defined in Section 12 (2) of the Factories Offices Act, 1971 (Act 328).

<u>Reduced Monthly Pension</u>

To qualify for a **Reduced Monthly Pension,** a member must retire at any age from 55 years to 59 years 11 months.

Early Retirement Reduction

Where a member retires earlier than the compulsory retiring age of 60 years the member's monthly pension would be subjected to an **Early Retirement Reduction** (or would be reduced) to account for the earlier retirement and therefore longer payment. That is, the member would be entitled to a **reduced pension**.

Early Retirement Reduction Factor

The Early Retirement Reduction is expressed by a factor called "**Early Retirement Reduction Factor**". These factors are used to reduce the monthly pension if you take an early retirement. The Early Retirement Reduction Factors are based on the permissible age at retirement (expressed in years and months) of the member.

How much your monthly pension is reduced depends on how early you retire. The earlier you retire, the greater the reduction and the closer you get to the compulsory retirement age of 60 years the lower the actuarial reduction.

(B) Contributions Payment Period Condition

Contributions Payment Period Condition

The contributions payment period condition is the minimum number of months of contribution payments that a member must make in order to qualify for an old-age monthly pension.

The contributions payment period condition does not affect the choice of age at which a member wants to retire (i.e. the age at retirement condition) or the choice of type of Pension option (i.e. Full Pension or a Reduced pension).

On the other hand the contributions payment period condition, differs depending on which Law (or Scheme) is applicable to the member.

(i) Under PNDCL 247:
A member must contribute to the scheme for a minimum total period of **240 months** or **20 years** during his/her working life prior to retirement (irrespective of whether there are breaks in employment or not).

(ii) Under ACT 766:
A member must contribute to the scheme for a minimum total period of **180 months** or **15 years** during his/her working life prior to retirement (irrespective of whether there are breaks in employment or not).

1.2 PROCEDURE FOR THE COMPUTATION OF MONTHLY PENSION

The formula for the calculation of the old-age monthly pension at retirement (or the amount of the old-age monthly pension at retirement) is based on the following key parameters:

Key Parameters

- Age at Retirement (i.e. Full or Reduced Pension)
- Earnings/Salaries on which contributions were paid
- Actual total number of months of Social Security contribution payments to the scheme prior to retirement.

Follow the five-step procedure below to calculate the monthly pension.

STEP 1: Determine Type of Retirement/Pension

The Monthly Pension amount is affected by the age at which a member retires or plans to retire.

(i) Determine Age at retirement (expressed in years and months rounded to the nearest month).

Age at Retirement = Date of Retirement - Date of Birth

(ii) Determine the Early Retirement Reduction Factor (where applicable).

A member retiring after age 55, but before attaining age 60 receives a pension reduced by a factor.

Ages 55 years to 58 year 11 months

0.6 + { additional age in months * 0.00625}

Ages 59 years to 59 year 11 months

0.9 + { additional age in months * 0.00833}

Age 60 and above the age reduction factor is 100%.

Note: For members in hazardous employment the Early Retirement Reduction Factor is not applicable.

Example 1

For a member aged 56 years and 7 months, the early retirement factor is computed using:

Additional age in month = **19 months**

Therefore **0.6 + { 19 * 0.00625} = 0.71875**

This member will receive only **71.875%** of the computed Pension.

Example 2

For a member aged 59 years and 8 months, the early retirement factor is computed using:

Additional age in month = **8 months**

Therefore **0.9 + { 8 * 0.00833} = 0.9666**

Early Retirement Reduction Factor Table

The Early Retirement Reduction Factors **(ERRF)** can be obtained from an **Early Retirement Reduction Factor Table**. The Early Retirement Reduction Factor Table is structured on the permissible age of retirement expressed in years and months.

Early Retirement Reduction Factor Table

		Months											
Years	**Age**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	55	0.6000	0.6063	0.6125	0.6188	0.6250	0.6313	0.6375	0.6438	0.6500	0.6563	0.6625	0.6688
	56	0.6750	0.6813	0.6875	0.6938	0.7000	0.7063	0.7125	0.7188	0.7250	0.7313	0.7375	0.74375
	57	0.7500	0.7562	0.7625	0.7687	0.7750	0.7812	0.7875	0.7937	0.8000	0.8062	0.8125	0.81875
	58	0.8250	0.8312	0.8375	0.8437	0.8500	0.8562	0.8625	0.8687	0.8750	0.8812	0.8875	0.89375
	59	0.9000	0.9083	0.9167	0.9250	0.9333	0.9417	0.9500	0.9583	0.9667	0.9750	0.9833	0.9917
	60 and above	1.0000											

The Early Retirement Reduction Factor is read from the *Early Retirement Reduction Factor Table* as follows:

- Determine the age at retirement expressed in **years** and **months** rounded to the nearest month.
- Select the "**years**" part of the age from the *row* of the Early Retirement Reduction Factor Table.
- Select the "**months**" part of the age from the *column* of the Early Retirement Reduction Factor Table.
- The value in the cell where the selected row (**years**) and column (**months**) meet is the applicable Early Retirement Reduction Factor for the age (in years and months) at retirement.

Example 3: The monthly pension amount of a member who plans to retire exactly at age 56 years 6 months would be subjected to an early retirement reduction factor value of **0.7125**

		Months											
Years	**Age**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	55	0.6000	0.6063	0.6125	0.6188	0.6250	0.6313	0.6375	0.6438	0.6500	0.6563	0.6625	0.6688
	56	0.6750	0.6813	0.6875	0.6938	0.7000	0.7063	**0.7125**	0.7188	0.7250	0.7313	0.7375	0.7438
	57	0.7500	0.7562	0.7625	0.7687	0.7750	0.7812	0.7875	0.7937	0.8000	0.8062	0.8125	0.8188
	58	0.8250	0.8312	0.8375	0.8437	0.8500	0.8562	0.8625	0.8687	0.8750	0.8812	0.8875	0.8938
	59	0.9000	0.9083	0.9167	0.9250	0.9333	0.9417	0.9500	0.9583	0.9667	0.9750	0.9833	0.9917
	60 and above	1.0000											

NB: The monthly pension of a member who is planning to retire exactly at age 60 years would **not** be subjected to an early retirement reduction and therefore would be given an ***Early Retirement Reduction Factor*** value of **1.000**

STEP 2: Determine the Pension Right

You earn or accrue **pension credits** called "**PENSION RIGHT**" (*expressed as a proportion or a percentage*) for the number of months you have contributed to the scheme.

(i) Determine the Scheme Option

The pension right build-up depends on the type of scheme (i.e. PNDCL 247 or ACT 766) that is applicable to the member.

- If the date of birth of the member is before **1st January 1960** (or if the age at 1st January 2010 is at least 50 years) the member belongs to **PNDCL 247** (provided the member did not opt out)
- Otherwise, the member belongs to **ACT 766** (provided the member did not opt out)

(ii) Compute Pension Right

PNDCL 247

- *Under PNDCL 247, a member receives monthly pension if he/she has contributed for a minimum period of **240 months** in total (irrespective of whether there are breaks in employment or not).*
- *A pension right of **50% (or 0.50)** is earned if there are Social Security contributions for a minimum period of **240 months** in total.*
- *Every additional month of Social Security contribution payment over the minimum period of **240 months** attracts an additional percentage of **0.125%.***
- The maximum pension right is **80% or 0.80** (which is equivalent to 480 months of Social Security contribution payments in total).

PENSION RIGHT=0.50 + [Total number of months of contributions - 240] x 0.00125

Calculating Pension Right under PNDCL 247

(i) Add up the actual number of months of Social Security contribution payments or the estimated number of months of Social Security contribution payments at retirement.

Result 1: Total number of months of contributions

(ii) Take the first 240 months of the **Total number of months of contributions** and assign a starting **PENSION RIGHT** of 0.50 or 50%

Result 2: 0.50

(iii) Subtract 240 from **Result 1**

Result 3: [Total number of months of contributions - 240]

(iv) Multiply **Result 3** by 0.00125

Result 4: [Total number of months of contributions - 240] x 0.00125

(v) Add **Result 2** to **Result 4** to obtain your final **PENSION RIGHT**

Example 4:

A total number of months of contributions of 250 under PNDCL 247 would give a pension right value equal to:

PENSION RIGHT=0. 50+ {(250 – 240) x 0.00125} = 0.50 +(10 X 0.00125) = 0.5125 or 51.25%

ACT 766

- Under ACT 766, a member receives monthly pension if the total contributions whiles working is at least **180 months** (irrespective of whether there are breaks in employment or not).
- A pension right of **37.5%** (**0.375**) is earned if there are Social Security contributions for a minimum period of **180 months** in total.
- Every additional month of Social Security contribution payment over the minimum period of **180** months attracts an additional percentage of **0.09375%.**
- The maximum pension right is **60% or 0.60** (which is equivalent to 420 months of Social Security contribution payments in total).

PENSION RIGHT = 0.375 + [Total number of months of contributions - 180] x 0.0009375

Calculating Pension Right under ACT 766

(i) Add up the actual number of months of Social Security contribution payments or the estimated number of months of Social Security contribution payments at retirement.

Result 1: **Total number of months of contributions**

(ii) Take the first 180 months of **Total number of months of contributions** and assign a starting **PENSION RIGHT** of 0.375 or 37.5%

Result 2: **0.375**

(iii) Subtract 180 from **Result 1**

Result 3: **[Total number of months of contributions - 180]**

(iv) Multiply **Result 3** by 0.0009375

Result 4: **[Total number of months of contributions - 180] x 0.0009375**

(v) Add **Result 2** to **Result 4** to obtain your final **PENSION RIGHT**

Example 5:

A total number of months of contributions of 250 under ACT 766 would give a pension right value equal to:

PENSION RIGHT= 0.375+{(250-180) x 0.0009375} =0.375+{70 x 0.0009375}=0.44063 or 44.06%

STEP 3: Determine the Average of Three Best Years' Annual Salary

*The pension amount is based on the **Average of Three Best Years' Annual Salaries** on which Social Security contributions were paid.*

Let the Three Best Years' Annual Salaries (TBYAS) be denoted as follows:

Salary1 = 1st Best Annual Salary
Salary2 = 2nd Best Annual Salary
Salary3 = 3rd Best Annual Salary

(I) Determine the Three Best Years' Annual Salaries

Procedure to determine the Three Best Years' Annual Salaries

The Three Best Years' Annual Salaries (TBYAS) are determined from the Best 36 Months of Average monthly Salaries as follows:

Salary1 = 1st Best Annual Salary is obtained from Highest 12 Months Average Monthly Salaries
Salary2 = 2nd Best Annual Salary is obtained from Next Highest 12 Months Average Monthly Salaries
Salary3 = 3rd Best Annual Salary is obtained from Next Highest 12 Months Average Monthly Salaries

(i) Compute the Average Monthly Salary (for each year of contribution payments)
Divide Total Salary for the year by the corresponding number of months of contribution payments for that year for each year of contribution payments.

$$\textbf{\textit{Average Monthly Salary}} = \frac{\textbf{\textit{Total Salary for the year}}}{\textbf{\textit{Number of months of contribution payments}}}$$

Period/Year	Number of Months	Total Salary GH¢	Average Monthly Salary GH¢
	(a)	(b)	(c) = (b) ÷ (a)

(ii) Arrange the Average Monthly Salaries in descending order of magnitude.
Arrange (sort out) the Average Monthly Salaries such that the Highest Average Monthly Salary is at the top (i.e. the first row below the header).

(iii) Obtain the First Best Year Annual Salary (Salary 1)
To obtain the first best year annual salary, begin with the Highest Average Monthly Salary

A. Where the Number of Months for the year with the Highest Monthly Salary is 12
Multiply the Average Monthly Salary of that year by 12 to obtain the 1st Best Annual Salary.
Best Annual Salary = Average Monthly Salary X 12

B. Where the Total Number of months for the year is less than 12 Months
Obtain the Additional Number of Months required to make up the 12 Months from the next highest Average Monthly Salary, and move to the next Highest Average Monthly Salary till you can make up the 12 months.

(iv) Obtain the Second Best Year Annual Salary (Salary 2)

Repeat step (iii) to obtain the second best annual salary

(v) Obtain the Third Best Year Annual Salary (Salary 3)

Repeat step (iii) to obtain the third best annual salary till you have the required 36 months using the Average Monthly Salaries.

NB: In the case where the Total Number of Months of Contributions of the member is less than 36 months extrapolate the **Last Average Monthly Salary** to obtain the 36 Months.

(II) Compute the Average of the Three (3) Best Years' Annual Salaries

Calculate the average of the three (3) best years' annual salaries using the following formula.

$$\textit{Average of three best years annual salaries} = \frac{Salary1 + Salary2 + Salary3}{3}$$

Example 6: Extracted Statement

1. Compute the Average Monthly Salary (for each year of contribution payments)

Year	Number of Months	Total Contribution	Total Salary	Monthly Salary= Total Salary/No. of Months
.	.	.	.	.
.	.	.	.	.
2009	9	10,753.40	61,448.00	6,827.56
2010	12	14,376.75	82,152.86	6,846.07
2011	12	18,816.68	107,523.89	8,960.32
2012	11	21,130.20	120,744.00	10,976.73

2. Arrange the Monthly Salaries in descending order

Year	Number of Months	Total Contribution	Total Salary	Monthly Salary= Total Salary/No. of Months	Rankings
2012	11	21130.2	120744	10976.73	1st
2011	12	18816.68	107523.9	8960.32	2nd
2010	12	14,376.75	82,152.86	6,846.07	3rd
2009	9	10,753.40	61,448.00	6,827.56	4th

3. Obtain theThree Best Year Annual Salary

1st Best = (11 *X* 10,976.73) + (1 X 8,960.32) = 129,704.32

2nd Best = (11 *X* 8,960.32) + (1 X 6,846.07) = 105,409.64

3rd Best = (11 *X* 6,846.07) + (1 X 6,827.56) = 82,134.34

4. Compute the Average of the Three (3) Best Years' Annual Salaries

$$\frac{129,704.32 + 105,409.64 + 82,134.34}{3}$$

= 105,749.43

STEP 4: Compute the Annual Pension

Compute your Annual Pension using the formula below.

Annual Pension = Average of Three Best Years' Annual Salaries
X Pension Right
X Early Retirement Reduction Factor

STEP 5: Determine the Monthly Pension

Divide the Annual Pension amount (obtained in step 4) by 12 to obtain the Monthly Pension.

$$\textbf{\textit{Monthly Pension}} = \frac{Annual\ Pension}{12}$$

1.3 PENSION START DATE

The age of a member at retirement determines when the Trust starts paying monthly pension.

- If the Age of the Member is equal to or more than 60 years at the time of retirement, monthly Pension starts a month after the Retirement date.
- If the Age of the Member is less than 60 years the monthly Pension starts a month after the lodgment date or retirement date which ever comes later.
- If the Age of the Member is less than 60 years but a member waits till the 60th birthday monthly Pension starts a month after the 60th birthdate.

1.4 CALCULATION OF ARREARS

Arrears starts a month after retirement (Full Pension) or Lodgement (Reduced Pension) to the month before payment.

Example 7:

Mr. Mensah retires in July 2013 at the age of 60 years and was paid in May 2014.

Years	No. Of Months	Monthly Pension	Arrears
2013	5	3,206.56	16,032.80
2014	4	3,536.74	14,146.96
Total	9		30,179.76

1.5 THE 25% LUMP SUM OPTION UNDER PNDCL 247

Once a member qualifies for an Old-Age Retirement Pension (i.e. either Full or Reduced Pension) under PNDCL 247, the pension payments are guaranteed for a period of 12 years (or 144 months) at the time of retirement. The member can exercise the option to collect 25% of the 12 years (or 144 months) guaranteed Pension payments as a lump sum.

How to calculate the 25% Lump Sum Option under PNDCL 247

The 25% Lump Sum is calculated using the following formula:

25% Lump Sum = 0.25 X Annuity Factor X Monthly Pension

$$\textbf{Annuity Factor} = \frac{\left[1-\left(1+\frac{Discount\ Rate}{12}\right)^{-144}\right]}{\frac{Discount\ Rate}{12}}$$

The Annuity Factor is dependent on a Discount Rate (i.e. based on the 91-Day Treasury bill rate or 10%, whichever is smaller) at the time of computation.

NB: ***It must be noted that the smaller the discount rate the larger the Annuity factor and the bigger the discount rate the smaller the Annuity factor.***

Due to the inconsistencies of the 91-day Treasury bill rates a discount rate of 10% has been used since 1991.

The Annuity factor value for a period of 144 months at a discount rate of 10% is **83.67653**

$$\textbf{Annuity Factor} = \frac{\left[1-\left(1+\frac{0.1}{12}\right)^{-144}\right]}{\frac{0.1}{12}} = 83.67653$$

The 25% Lump Sum formula becomes

25% Lump Sum = 0.25 X 83.67653 X Monthly Pension

1.6 RESIDUAL MONTHLY PENSION

Note that when a member opts to collect the 25% lump sum, the monthly pension earned would be reduced by 25%. The member would thereafter the collection of the 25% lump sum be paid a monthly pension less 25%, termed as **RESIDUAL MONTHLY PENSION**. The Residual Monthly Pension is thus calculated as follows:

Residual Monthly Pension = 0.75 X Monthly Pension

1.7 Indexation of Pension

Indexation is an adjustment made to pensions in order to maintain pensioners' income and purchasing power. Pensions of members are adjusted in order to catch up with increases in wages, salaries and prices.

- PNDCL 247, section 39 states that '***The Trust shall annually review the pension payment based on adjustment in salaries and wages'.***
- Act 766, section 80 states that '***The Trust shall annually review the pension payment which shall be indexed to wage inflation rates of active contributors or another rates determined by the Trust in consultation with the Board of the Authority***'.
- This review is done to ensure that pensions are adjusted in relation to salaries and wages (wage inflation) of contributors.

Computation Of Pensions Indexation

Overall Indexation Rate = Fixed Rate + Flat Amount

New 1 Pension Amount = (Old Pension Amount * (1 + Fixed Rate)).

- Flat Amount index application:
- **New Pension Amount = (New1 Pension Amount + Flat Amount).**

Example 8:

A member retires at age 56 years 2 months under PNDCL 247 and has contributed for a period of 250 months with the following three best annual salaries of GH₵60,000, GH₵58,000 and GH₵44,000.

(i) Calculate the monthly pension

(ii) Calculate the 25% Lump sum and Residual monthly pension

STEP 1: Determine Type of Retirement/Pension

(i) Determine age at retirement expressed in years and months

The member's age at retirement is **56 years 2 months**

(ii) Select type of retirement ☐ **Full (Normal) Retirement - (Full Pension)**

☑ **Early Retirement - (Reduced Pension)**

The member's age at retirement is 56 years 2 months and therefore is entitled to a **reduced pension**. Thus the monthly pension shall be subjected to a reduction.

The applicable **Early Retirement Reduction Factor (ERRF) = 0.6875**

STEP 2: Calculate the Pension Right

Total number of months of contribution payments = 250

A total number of months of contributions of 250 (under PNDCL 247) would give a pension right value equal to

PENSION RIGHT = 0.50 + [Total number of months of contributions - 240] x 0.00125

PENSION RIGHT = 0.50 + {[250 - 240] x 0.00125} = 0.5125 or 51.25%

STEP 3: Determine the Average of the Three (3) Best Years' Annual Salaries

(i) Determine the three best years' annual salaries

The Three (3) Best Years' Annual Salaries given are:

[Salary1] = GH₵60,000
[Salary2] = GH₵58,000
[Salary3] = GH₵44,000

(ii) Compute the average of the three (3) best years' annual salaries

The average of the three best years' annual salaries is computed as:

$$\textbf{Average of Three Best Years' Annual Salaries} = \frac{Salary1 + Salary2 + Salary3}{3}$$

$$\textbf{Average of Three Best Years' Annual Salaries} = \frac{60{,}000 + 58{,}000 + 44{,}000}{3} = 54{,}000$$

STEP 4: Compute the Annual Pension

Annual Pension = Average of Three Best Years' Annual Salaries X Pension Right X ERRF

Annual Pension = 54,000X 0.5125 X 0.6875 = GH₵19,026.60

STEP 5: Determine the Monthly Pension

Monthly Pension = $\dfrac{Annual\ Pension}{12}$

Monthly Pension = $\dfrac{19{,}026.60}{12} = 1{,}585.55$

The Monthly Pension is GH₵ 1,585.55 (Reduced Pension)

(ii) **25% Lump sum amount**

The 25% Lump sum amount of the monthly pension of **GH₵1,585.55** at a discount rate of 10% is calculated as follows:

25% Lump Sum = 0.25 X 83.67653 X Monthly Pension

25% Lump Sum = 0.25 X 83.67653 X GH₵ 1,585.55 = GH₵ 33,168.33

Residual Monthly Pension

The monthly pension amount of **GH₵1,585.55** gives a residual monthly pension of:

Residual Monthly Pension = 0.75 X Monthly Pension

Residual Monthly Pension = 0.75 X GH₵ 1,585.55 = GH₵ 1,189.16

That is, if the member opted for a 25% lump sum the member would have received a 25% lump sum amount of **GH₵ 33,168.33** and a residual monthly pension of **GH₵ 1,189.16**

Example 9:

A member plans to retire at exactly age 60 years under Act 766 and has contributed for a period of 250 months with the following three best annual salaries of GH₵60,000, GH₵58,000 and GH₵44,000. Calculate the monthly pension

STEP 1: Determine type of Retirement/Pension

(i) **Determine age at retirement** expressed in years and months

The member plans to retire at exactly age **60 years**

(ii) **Select Type of Retirement** ☑ **Full (Normal) Retirement - (Full Pension)**

☐ **Early Retirement - (Reduced Pension)**

The member's age at retirement is exactly 60 years and therefore is entitled to a **full pension**.

Retirement at age 60 years or later does NOTconstitute an early retirement and therefore the member's monthly pension shall be affected by an **Early Retirement Reduction Factor of 1.000** (i.e. no change in the monthly pension amount).

STEP 2: Calculate the Pension Right

Total number of months of contribution payments = 250

A total number of months of contributions of 250 (under Act 766) would give a pension right value equal to:

PENSION RIGHT = 0.375 + [Total number of months of contributions - 180] x 0.0009375

PENSION RIGHT = 0.375 + {(250 – 180) x 0.0009375}= 0.440625 or 44.0625%

STEP 3: Determine the Three (3) Best Years' Annual Salaries

(i) Determine the three (3) best years' annual salaries

The Three (3) Best Years' Annual Salaries given are:

[Salary1] = GH₵60,000
[Salary2] = GH₵58,000
[Salary3] = GH₵44,000

(ii) Compute the average of the three (3) best years' annual salaries

The average of the three (3) best years' annual salaries is computed as:

$$\textbf{Average of Three (3) Best Years' Annual Salaries} = \frac{Salary1 + Salary2 + Salary3}{3}$$

$$\textbf{Average of Three (3) Best Years' Annual Salaries} = \frac{60{,}000 + 58{,}000 + 44{,}000}{3} = 54{,}000$$

STEP 4: Compute the Annual Pension

Annual Pension = Average of Three Best Years' Annual Salaries X Pension Right X ERRF

Annual Pension = 54,000X 0.440625 X 1.000 = GH₵23,793.75

STEP 5: Determine the Monthly Pension

$$\textbf{Monthly Pension} = \frac{Annual\ Pension}{12}$$

$$\textbf{Monthly Pension} = \frac{23{,}793.75}{12} = \textbf{1,982.81}$$

The Monthly Pension is **GH₵1,982.81** (i.e. Full Pension)

2. PAST CREDIT

The National Pension Act, 2008 Act 766 Section 94, sub-section (d) states that;
"Accrued or past service or past credits earned by every contributor to whom the new scheme applies in respect of the 25% lump sum benefit shall have the lump sum determined by a formula agreed between the Pension Reform Implementation Committee and the Trust based on actuarial assessment".

Four percent (4%) of the Total Annual Salary is computed for each year of contribution from the year of first contribution till December 2009.

The computed amount for each year is then accumulated at one-half the prevailing Treasury bill rate up to 31st December 2009 to obtain **Accrued Credit** for each year.

- The **Accrued Credit** for each year of contribution (up to 31st December, 2009) is summed to obtain the **Total Accrued Credit** (or the **Past Credit**) as at 31st December 2009.
- The **Total Accrued Credit** as at 31st December 2009 is then compounded annually at seventy-five percentage of the prevailing Treasury bill rate from January 2010 up to the end of the year before the year of payment.
- In the year of payment, the accumulated amount obtained in the previous year is compounded monthly at seventy-five percentage of the prevailing Treasury bill rate up to the month of payment to obtain the **Accumulated Past Credit**.

Example 10: Calculate the Past Credit for the extract of Statement below.

Period	No. Of Months	Total Cont. GHS	Total Salary GHs
2002	12	203.88	1,165.04
2003	12	259.13	1,480.75
2004	4	169.62	969.25
2005	6	383.96	2,194.05

STEP 1: Calculate 4% of Total Salary

Four percent (4%) of the Total Annual Salary is computed for each year of contribution from the year of first contribution till the year 2009.

Period	Total Salary GHs	4% of Total Salary GHs
2002	1,165.04	46.60
2003	1,480.75	59.23
2004	969.25	38.77
2005	2,194.05	87.76

4% of Total Salary $_{2003}$ = 0.04 * 1,480.75 = 59.23

4% of Total Salary $_{2004}$ = 0.04 * 969.25 = 38.77

STEP 2: Accrued Credit up to 31/12/2009

The computed amount for each year is then accumulated at one-half the prevailing Treasury bill rate up to 31st December 2009 to obtain Accrued Credit for each year.

Period	Total Salary GHs	4% of Total Salary GHs	Accrued Credit @31/09/2009
2002	1,165.04	46.60	89.75
2003	1,480.75	59.23	100.52
2004	969.25	38.77	58.90
2005	2,194.05	87.76	123.46

Accrued Credit 2003 to Dec. 2009 =

$$59.23*\left(1+\frac{TBR_{2003}}{4}\right)*\left(1+\frac{TBR_{2004}}{2}\right)*...*\left(1+\frac{TBR_{2009}}{2}\right)=100.52$$

STEP 3: Calculate the Past Credit at 31/09/2009

The Accrued Credit for each year of contribution (as at 31st December, 2009) is summed to obtain the Total Accrued Credit (or the Past Credit) as at 31st December 2009.

Period	Total Salary GHs	4% of Total Salary GHs	Accrued Credit @31/09/2009
2002	1,165.04	46.60	89.75
2003	1,480.75	59.23	100.52
2004	969.25	38.77	58.90
2005	2,194.05	87.76	123.46
Total Accrued Credit (Past Credit)			**372.32**

Total Accrued Credit (Past Credit) = 89.75 + 100.52 + 58.90 + 123.46 = 372.32

STEP 4: The Past Credit at Payment Date

The Past Credit as at 31st December 2009 is then compounded annually at seventy-five percentage of the prevailing Treasury bill rate from January 2010 up to the end of the year before the year of payment.

$$\text{Past Credit} * \left(1+\frac{3*TBR_{2010}}{4}\right)*\cdots*\left(1+\frac{3*TBR_{K}}{4}\right)$$

In the year of payment, the accumulated amount is compounded monthly at seventy-five percentage of the prevailing Treasury bill rate up to the month of payment to obtain the Accumulated Past Credit.

Accumulated Past Credit =

$$\text{Past Credit} * \left(1+\frac{3*TBR_{2010}}{4}\right)*\cdots*\left(1+\frac{3*TBR_{K}}{4}\right)*\left(1+\frac{3*TBR_{JAN}}{48}\right)*\cdots*\left(1+\frac{3*TBR_{g}}{48}\right)$$

Period	Total Salary GHs	4% of Total Salary GHs	Accrued Credit @31/09/2009
2002	1,165.04	46.60	89.75
2003	1,480.75	59.23	100.52
2004	969.25	38.77	58.90
2005	2,194.05	87.76	123.46
Total Accrued Credit (Past Credit)			**372.32**
Accumulated Past Credit as at 3/4/2012			**427.76**

Month of Payment is April 2012

3. OLD- AGE RETIREMENT LUMP SUM

The Old-Age retirement lump sum is a cash payment (one-time payment) equivalent to total contribution payments plus the interest on the contributions paid to a member on retirement.

Qualifying conditions

The Old-Age retirement lump sum is paid to a member who:

- Has retired (either compulsorily or voluntarily) but;
- Has not satisfied the contribution condition required to qualify for a pension (i.e. has not paid at least, the applicable minimum number of months of social security contributions to the scheme).

- *The required minimum number of months of Social Security contributions under PNDCL 247 is 240*
- *The required minimum number of months of Social Security contributions under Act 766 is 180*

Applicable Interest Rates

Under PNDCL 247

The interest is computed using one-half of the prevailing 91-day Government Treasury bill rates from the date of joining the scheme to date of payment.

Under Act 766

The interest is computed using one-half of the prevailing 91-day Government Treasury bill rates from the date of joining the scheme to December 2009. From January 2010 to date of payment, the interest rate is three-quarters of the prevailing 91-day Government Treasury bill rates.

The methodology for the computation is as follows:

(i) Accumulate each contribution payment using the applicable Treasury bill rate up to the month of last contribution payment prior to retirement.

(ii) Sum up the **Accumulated amount** of each contribution payment to obtain the Old-Age Retirement Lump Sum.

Old-Age Retirement Lump Sum = Sum of Accumulated Value of Contribution Payments

3.1 Procedure for the Computation of Old Age Lump Sum Benefit

(i) For Accumulation up to December 1982

Factors used are:

- (Total Contributions as at 1982 **Divided By** Total number of months as at December 1982)
- (1982 Annual Treasury Bill Rate **Divided By** 24)
- (Total number of months of contributions as at December 1982)

Accrued Benefit $_{\text{UP TO DEC. 1982}}$ = Total Contribution up to 1982 X Accumulation Factor

$$Accumulation\ Factor = \frac{\left[\left(1+\frac{TB\ Rate}{24}\right)^{v}-1\right]}{\frac{TB\ Rate}{24}}$$

V = Total number of Months of contributions as at December 1982

(ii) For Accumulation from January 1983 and up to December 2003

Factors used are:

- Accrued Benefits from Previous Years
- 17.5% of Total Salary for the year
- Annual Treasury bill Rate

$$\textbf{Accrued Benefit}_{\text{UP TO DEC. 1983}} = \textbf{Accrued Benefit}_{\text{UP TO DEC. 1982}} * \left(1 + \frac{TBR_{1983}}{2}\right) + TC_{1983} * \left(1 + \frac{TBR_{1983}}{4}\right)$$

$$\textbf{Accrued Benefit}_{\text{UP TO DEC. 1984}} = \textbf{Accrued Benefit}_{\text{UP TO DEC. 1983}} * \left(1 + \frac{TBR_{1984}}{2}\right) + TC_{1984} * \left(1 + \frac{TBR_{1984}}{4}\right)$$

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$$\textbf{Accrued Benefit}_{\text{UP TO DEC. 2003}} = \textbf{Accrued Benefit}_{\text{UP TO DEC. 2002}} * \left(1 + \frac{TBR_{2003}}{2}\right) + TC_{2003} * \left(1 + \frac{TBR_{2003}}{4}\right)$$

TBR = Annual Average 91-day Treasury bill rate

TC = Total Contribution for Year = 17.5% of Total Salary

(iii) For Accumulation from January 2004 up to Dec., 2009

Factors used are:

- Accrued Benefits from Previous Years
- 17.5% of Total Salary for the year
- Annual Treasury Bill Rate

$$\textbf{Accrued Benefit}_{\text{UP TO DEC. 2004}} = \textbf{Accrued Benefit}_{\text{UP TO DEC. 2003}} * \left(1+\frac{TBR_{2004}}{2}\right) + TC_{2004} * \left(1+\frac{TBR_{2004}}{4}\right)$$

$$\textbf{Accrued Benefit}_{\text{UP TO DEC. 2005}} = \textbf{Accrued Benefit}_{\text{UP TO DEC. 2004}} * \left(1+\frac{TBR_{2005}}{2}\right) + TC_{2005} * \left(1+\frac{TBR_{2005}}{4}\right)$$

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$$\textbf{Accrued Benefit}_{\text{UP TO DEC. 2009}} = \textbf{Accrued Benefit}_{\text{UP TO DEC. 2008}} * \left(1+\frac{TBR_{2009}}{2}\right) + TC_{2009} * \left(1+\frac{TBR_{2009}}{4}\right)$$

TC = Total Contribution for the Year = 17.5% of Total Salary

(iv) Accumulation from January 2010 up to Year before Processing Year

Factors used are:

- Accrued Benefits from Previous Years
- 17.5% of Total Salary for the year (PNDC LAW 247) and 13.5% of Total Salary for the year (Act 766)
- Annual Treasury Bill Rate

$$\textbf{Accrued Benefit}_{\text{UP TO DEC. 2010}} = \textbf{Accrued Benefit}_{\text{UP TO DEC. 2009}} * \left(1+\frac{TBR_{2010}}{2}\right) + TC_{2010} * \left(1+\frac{TBR_{2010}}{4}\right)$$

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$$\textbf{Accrued Benefit}_{\text{UP TO K}} = \textbf{Accrued Benefit}_{\text{UP TO K-1}} * \left(1+\frac{TBR_{K}}{2}\right) + TC_{K} * \left(1+\frac{TBR_{K}}{4}\right)$$

TBR = Annual Average 91-day Treasury bill rate

TC = Total Contribution for the Year = 11.0% of Total Salary

K = End of Year before Processing year

$K \geq 2011$

(v) For Monthly Accumulation in the Processing Year

Factors used are:

- Total Accrued Benefits
- Monthly Contributions
- Monthly 91-day Treasury Bill Rate

$$\textbf{Accrued Benefit}_{\text{UP TO MONTH 1 in K+1}} = \textbf{Accrued Benefit}_{\text{UP TO K}} * \left(1+\frac{TBR^{1}_{K+1}}{24}\right) + TC^{1}_{K+1} * \left(1+\frac{TBR^{1}_{K+1}}{48}\right)$$

$$\textbf{Accrued Benefit}_{\text{UP TO MONTH 2 in K+1}} = \textbf{Accrued Benefit}_{\text{UP TO MONTH 1}} * \left(1+\frac{TBR^{2}_{K+1}}{24}\right) + TC^{2}_{K+1} * \left(1+\frac{TBR^{2}_{K+1}}{48}\right)$$

. . . .

. . . .

$$\textbf{Accrued Benefit}_{\text{UP TO MONTH } I \text{ in K+1}} = \textbf{Accrued Benefit}_{\text{UP TOMONTH I-1 in K+1}} * \left(1+\frac{TBR^{I}_{K+1}}{24}\right) + TC^{I}_{K+1} * \left(1+\frac{TBR^{I}_{K+1}}{48}\right)$$

$K+1$ = Year of Processing

TBR^{I}_{K+1} = Prevailing 91-day Treasury bill rate for month I in the processing year K+1

TC^{I}_{K+1} = Total Contribution for month I in the processing year K+1

$I \geq 3$

4. INVALIDITY PENSION

Invalidity Pension is a monthly cash benefit paid to a member of the Scheme who can no longer work due to a disease, an illness or a disability of a permanent nature.

4.1 Qualifiying Conditions

To qualify for an Invalidity monthly pension a member must satisfy the following conditions.

(a) Certification of invalidity by the SSNIT Medical Board

(b) Contributions payment period condition

Certification of Invalidity by the SSNIT Medical Board

A member must have been declared permanently invalid and incapable of securing any gainful employment by a certified Medical Practitioner and also certified by the SSNIT Medical Board.

Contributions Payment Period Condition

A member should have made at least 12 months of contribution payments to the Scheme within the last 36 months prior to the incidence of invalidity.

Note: A member of the scheme can qualify for an invalidity pension at any age.

4.2 Procedure for Computing the Monthly Pension

The key parameters for the computation of the Invalidity Monthly Pension is based on the following:

(a) Total number of months of contribution payments to the scheme prior to the incidence of invalidity.

(b) Average of the three (3) Best Years Annual Salaries

Follow the four-step procedure below to calculate the invalidity monthly pension.

STEP 1: Compute the Pension Right

You earn or accrue **pension credits** called "**PENSION RIGHT**" (*expressed as a proportion or a percentage*) for the number of months you have contributed to the scheme.

(i) Determine the Scheme Option

The pension right build-up depends on the type of scheme (i.e. PNDCL 247 or ACT 766) that is applicable.

- If the date of birth of the member is before **1st January 1960** (or if the age at 1st January 2010 is at least 50 years) the member belongs to **PNDCL 247** (provided the member did not opt out)
- Otherwise, the member belongs to **ACT 766** (provided the member did not opt out)

Under PNDCL 247

Where the member has contributed for a period of at least 240 months, the member shall be entitled to a pension right (or pension credit) equivalent to that of the Old-age retirement pension.

PENSION RIGHT=0.50 + [Total number of months of contributions - 240] x 0.00125

Where the member fails to satisfy the minimum contribution period of 240 months the member shall be given a pension right of **50%** or **0.50** (i.e. Minimum pension right).

Under Act 766

Where the member has contributed for a period of at least 180 months, the member shall be entitled to a pension right (or pension credit) equivalent to that of the Old-age retirement pension.

PENSION RIGHT = 0.375 + [Total number of months of contributions - 180] x 0.0009375

Where the member fails to satisfy the minimum contribution period of 180 months the member shall be given a pension right of **37.5%** or **0.375** (i.e. the minimum pension right).

NB: In all the cases, it is being assumed that the member has already contributed for at least 12 months within the last 36 months prior to the incidence of invalidity.

STEP 2: Determine the Average of Three (3) Best Years' Annual Salary

*The pension amount is based on the **Average of Three (3) Best Years' Annual Salaries** on which Social Security contributions were paid.*

Let the Three Best Years' Annual Salaries (TBYAS) be denoted as follows

Salary1 = 1st Best Annual Salary
Salary2 = 2nd Best Annual Salary
Salary3 = 3rd Best Annual Salary

(I) Determine the three best years' annual salaries

Procedure to determine the Three Best Years' Annual Salaries

The Three Best Years' Annual Salaries (TBYAS) are determined from the Best 36 Months of Average Monthly Salaries as follows:

Salary1 = 1st Best Annual Salary is obtained from Highest 12 Months Average Monthly Salaries
Salary2 = 2nd Best Annual Salary is obtained from Next Highest 12 Months Average Monthly Salaries
Salary3 = 3rd Best Annual Salary is obtained from Next Highest 12 Months Average Monthly Salaries

(i) Compute the Average monthly Salary (for each year of contribution payments)

Divide Total Salary for the year by the corresponding number of months of contribution payments for that year for each year of contribution payments.

$$Average\ Monthly\ Salary = \frac{Total\ Salary\ for\ the\ year}{Number\ of\ months\ of\ contribution\ payments}$$

Period/Year	Number of Months	Total Salary GH¢	Average Monthly Salary GH¢
	(a)	(b)	(c) = (b) ÷ a

(ii) Arrange the Average Monthly Salaries in descending order of magnitude.

Arrange (sort out) the Average Monthly Salaries such that the highest Average monthly Salary is at the top (i.e. the first row below the header).

(iii) Obtain the first best year annual salary (Salary 1)

To obtain the first best year annual salary, begin with the Highest Average Monthly Salary

A. Where the Number of Months for the year with the Highest Monthly Salary is 12

Multiply the Average Monthly Salary of that year by 12 to obtain the 1st Best Annual Salary.

Best Annual Salary = Average Monthly Salary X 12

B. Where the Total Number of months for the year is less than 12 Months

Obtain the Additional Number of Months required to make up the 12 Months from the next highest Average Monthly Salary, and move to the next highest Average Monthly Salary till you can make up the 12 months.

(iv) Obtain the second best year annual salary (Salary 2)

Repeat step (iii) to obtain the second best annual salary

(v) Obtain the third best year annual salary (Salary 3)

Repeat step (iii) to obtain the third best annual salary till you have the required 36 months using the Average Monthly Salaries.

NB: In the case where the Total Number of Months of Contributions of the member is less than 36 Months extrapolate the **Last Average Monthly Salary** to obtain the 36 Months.

(II) Compute the Average of the Three (3) Best Years' Annual Salaries

Calculate the average of the three (3) best years' annual salaries using the following formula.

$$Average\ of\ three\ best\ years\ annual\ salaries = \frac{Salary1 + Salary2 + Salary3}{3}$$

STEP 3: Compute the Annual Pension

Multiply the Average of the Three Best Years' Annual Salaries by the Pension Right to obtain the Annual Pension

Annual Pension = Average of Three Best Years' Annual Salaries X Pension Right

STEP 4: Determine the Monthly Pension

Divide the Annual Pension amount (obtained in step 3) by 12 to obtain the Monthly Pension.

$$\textbf{Monthly Pension} = \frac{Annual\ Pension}{12}$$

The Three best years' Annual Salaries are obtained from the net contributions after number of months of contribution and amount of contribution used to repay students' loan have been taken care of.

Note: Members who take invalidity pension also qualify for a 25% lump sum under PNDCL 247.

Example 11:

A member aged 56 years 2 months is declared invalid by the SSNIT Medical Board. The member has contributed for a period of 250 months with the following three best annual salaries of GH₵60,000, GH₵58,000 and GH₵44,000. Calculate the Invalidity Monthly Pension.

(a) Under PNDCL 247

(b) Under Act 766

NB: It is being assumed that the member has already contributed for at least 12 months within the last 36 months prior to the incidence of invalidity.

STEP 1: Compute the Pension Right

(i) Determine the Scheme option

(a) PNDCL 247

(b) ACT 766

(ii) Calculate the Pension Right

Total number of months of contribution payments = 250

(a) <u>Under PNDCL 247</u>

A Total number of months of contributions of 250 (under PNDCL 247) would give a pension right value equal to

PENSION RIGHT=0.50 + [Total number of months of contributions - 240] x 0.00125

(b) Under Act 766

A Total number of months of contributions of 250 (under Act 766) would give a pension right value equal to:

PENSION RIGHT = 0.375 + [Total number of months of contributions-180] x 0.0009375

PENSION RIGHT = 0.375 + {(250 – 180) x 0.0009375}= 0.440625 or 44.0625%

STEP 2: Determine the Three Best Years' Annual Salaries

(i) Determine the three best years' annual salaries

The Three (3) Best Years' Annual Salaries given are:

[Salary 1] = GH₵60,000
[Salary 2] = GH₵58,000
[Salary 3] = GH₵44,000

(ii) Compute the average of the three (3) best years' annual salaries

The average of the three best years' annual salaries is computed as:

$$\textbf{Average of Three Best Years' Annual Salaries} = \frac{Salary1 + Salary2 + Salary3}{3}$$

$$\textbf{Average of Three Best Years' Annual Salaries} = \frac{60{,}000 + 58{,}000 + 44{,}000}{3} = 54{,}000$$

STEP 3: Compute the Annual Pension

Multiply the Average of the Three Best Years' Annual Salaries by the Pension Right.

Annual Pension = Average of Three Best Years' Annual Salaries X Pension Right

(a) Under PNDCL 247

Annual Pension = 54,000X 0.5125 = GH₵ 27, 675.00

(b) Under Act 766

Annual Pension = 54,000X 0.440625 = GH₵ 23,793.75

STEP 4: Determine the Monthly Pension

Divide the Annual Pension obtain in STEP 3 by 12 to obtain the Monthly Pension

$$\textbf{Monthly Pension} = \frac{Annual\ Pension}{12}$$

(a) Under PNDCL 247

Monthly Pension = GH₵27,675.00/12= GH₵ 2,306.25

(b) Under Act 766

Monthly Pension = GH₵23,793.75/12= GH₵ 1, 982.81

25% Lump sum Option under PNDCL 247

Under **PNDC Law 247** the member can opt for a 25% Lump sum and thereafter receive a residual monthly pension:

(i) 25% Lump sum amount

The 25% Lump sum amount of the monthly pension of **GH₵2,306.25** at a discount rate of 10% is calculated as follows:

25% Lump Sum = 0.25 X 83.67653 X Monthly Pension

25% Lump Sum = 0.25 X 83.67653 X GH₵2,306.25 = GH₵48,244.75

(ii) Residual Monthly Pension

The monthly pension amount of **GH₵2,306.25** gives a residual monthly pension of:

Residual Monthly Pension = 0.75 X Monthly Pension

Residual Monthly Pension = 0.75 * 2,306.25 = GH₵1,729.69

Example 12:

A member aged 37 years 5 months is declared invalid by the SSNIT Medical Board. The member has contributed for a period of 140 months with the following three best annual salaries of GH₵60,000, GH₵58,000 and GH₵44,000. Calculate the Invalidity Monthly Pension.

(a) Under PNDCL 247

(b) Under Act 766

NB: It is being assumed that the member has already contributed for at least 12 months within the last 36 months prior to the incidence of invalidity.

STEP 1: Compute the Pension Right

(i) Determine the Scheme option

(a) PNDCL 247

(b) ACT 766

(ii) Calculate the Pension Right

Total number of months of contribution payments = 140

(a) Under PNDCL 247

*Where the total number of contributions is less than 240 Months, the member is given a Pension Right of **50%.***

A Total number of months of contributions of 140 (under PNDCL 247) would give a pension right of **50%.**

PENSION RIGHT = 0.50 or 50%

(b) Under Act 766

*Where the total number of contributions is less than 240 Months, the member is given a Pension Right of **37.5%.***

A Total number of months of contributions of 140 (under ACT 766) would give a pension right of **37.5%.**

PENSION RIGHT = 0.375 or 37.5%

STEP 2: Determine the Three Best Years' Annual Salaries

(i) Determine the three best years' annual salaries

The Three (3) Best Years' Annual Salaries given are:

[Salary 1] = GH₵60,000
[Salary 2] = GH₵58,000
[Salary 3] = GH₵44,000

(ii) Compute the average of the three (3) best years' annual salaries

The average of the three best years' annual salaries is computed as:

$$\textbf{Average of Three Best Years' Annual Salaries} = \frac{Salary1 + Salary2 + Salary3}{3}$$

$$\textbf{Average of Three Best Years' Annual Salaries} = \frac{60{,}000 + 58{,}000 + 44{,}000}{3} = 54{,}000$$

STEP 3: Compute the Annual Pension

Multiply the Average of the Three Best Years' Annual Salaries by the Pension Right

Annual Pension = Average of Three Best Years' Annual Salaries X Pension Right

(a) Under PNDCL 247

Annual Pension = 54,000X 0.500 = GH₵27,000.00

(b) Under Act 766

Annual Pension = 54,000X 0.375 = GH₵20,250.00

STEP 4: Determine the Monthly Pension

Divide the Annual Pension obtain in STEP 3 by 12 to obtain the Monthly Pension

$$\textbf{Monthly Pension} = \frac{Annual\ Pension}{12}$$

(a) Under PNDCL 247

Monthly Pension = GH₵27,000.00/12= GH₵2,250.00

(b) Under Act 766

Monthly Pension = GH₵20,250.00/12= GH₵1,687.50

25% Lump sum Option under PNDCL 247

Under **PNDC Law 247** the member can opt for a 25% Lump sum and thereafter receive a residual monthly pension:

(i) 25% Lump sum amount

The 25% Lump sum amount of the monthly pension of **GH₵2,250.00** at a discount rate of 10% is calculated as follows:

25% Lump Sum = 0.25 X 83.67653 X Monthly Pension

25% Lump Sum = 0.25 X 83.67653 X GH₵2,250.00 = GH₵ 47,068.05

(ii) Residual Monthly Pension

The monthly pension amount of **GH₵2,250.00** gives a residual monthly pension of:

Residual Monthly Pension = 0.75 X Monthly Pension

Residual Monthly Pension = 0.75 * 2,250 = GH₵1,687.50

5. SURVIVORS' BENEFIT

Survivors' Benefit is a lump sum benefit (one-time payment) paid to the survivors of a member of the scheme under the following conditions:

- When the member dies before retirement; or
- When a pensioner (whether old-age or invalidity pensioner) dies before attaining age 72 years (under PNDCL 247) or 75 years (under Act 766).

NB: The survivors' of the deceased must be dependents of the deceased and validly nominated as beneficiaries of the deceased.

Depending on the eligibility requirements met at the time of death, the beneficiaries of the deceased may be eligible for one of the following benefits payments:

- **Survivors' Benefit I (present value of guaranteed/unexpired pension payments)**
- **Survivors' Benefit II (return of contributions with interest)**

5.1 Survivors' Lump sum

A Survivors' Lump Sum shall be paid to the beneficiaries of a:

(i) Deceased worker or contributor who has contributed to the scheme for a period of at least 12 months in total within the last 36 months prior to his/her death.

(ii) Deceased pensioner who dies before attaining the age of 72 years under PNDCL 247 and 75 years under Act 766.

NB: Survivors' of a deceased pensioner shall not be entitled to any Survivors' Benefit if the pensioner dies after attaining the age of 72 years under PNDCL 247 and 75 years under Act 766.

5.2 Survivors' Grant

PNDCL 247: The survivors of a member qualify for Survivors benefit if the member has contributed for ***at least one month***.

Act 766: The survivors of a member qualify for Survivors benefit if the member dies having made ***at least twelve months contributions within the last 36.***

The Survivors' Benefits is classified as follows:

- **Worker Death Survivors' Benefit**
- **Pensioner Death Survivors' Benefit**
- **Worker Death Survivors' Grant**

5.3 Procedure for the Computation of Survivors' Benefit

The Survivors' benefit is computed as follows:

5.3.1 Worker Death Survivors' Benefit

The Survivors' benefit (i.e. the lump sum benefit) is the present value of the member's pension for a period of 144 months under PNDCL 247 and 180 months under Act 766, using the prevailing Treasury bill rate or ten percent (10%), whichever is the lower.

Follow the five-step procedure to calculate the Monthly Pension.

STEP 1: Compute the Pension Right

Under PNDCL 247

- Where the deceased has contributed for a period of not less than 240 months, the member shall be entitled to a pension right equivalent to that of the Old-age retirement pension.

PENSION RIGHT = 0.50 + [Total number of months of contributions - 240] x 0.00125

- **Where the member fails to satisfy the minimum contribution period of 240 months the member shall be given a pension right of 50% or 0.50 (i.e. The minimum pension right).**

Under Act 766

- Where the deceased has contributed for a period of not less than 180 months, the member shall be entitled to a pension right (or **pension credit**) equivalent to that of the Old-age retirement pension.

PENSION RIGHT=0.375 + [Total number of months of contributions -180] x 0.0009375

- **Where the deceased fails to satisfy the minimum contribution period of 180 months the member shall be given a pension right of 37.5% or 0.375 (i.e. The minimum pension right).**

NB: In all the cases, it is being assumed that the member has already contributed for at least 12 months within the last 36 months prior to death. This applies to members contributing to Act 766

STEP 2: Determine the Average of Three Best Years' Annual Salary

The pension amount is based on the ***Average of Three Best Years' Annual Salaries*** on which Social Security contributions were paid.

The Three Best Years' Annual Salaries (TBYAS) are determined from the Best 36 Months of Average monthly Salaries.

The factors that are considered when computing the TBYAS are the following:

- Total Contributions for each year of working Life (amount and corresponding number of months)
- Total Contributions used to repay Students Loan (amount and corresponding number of months)

The Three best years' Annual Salaries are obtained from the net contributions after number of months of contribution and amount of contribution used to repay students' loan have been taken care of.

To determine the ***Average of Three Best Years' Annual Salaries*** do the following:

Best 1st Year Salary = Highest 12 Months of Average Monthly Salary

Best 2nd Year Salary = Next Highest 12 Months of Average Monthly Salary

Best 3rd Year Salary = Next Highest 12 Months of Average Monthly Salary

[Salary 1]: = The highest annual salary

[Salary 2]: = The second highest annual salary

[Salary 3]: = The third highest annual salary

$$\textbf{Average of Three Best Years Annual Salaries} = \frac{Salary1 + Salary2 + Salary3}{3}$$

STEP 3: Compute the Annual Pension

Multiply the Average of the Three Best Years' Annual Salaries by the Pension Right to obtain the Annual Pension.

Annual Pension = Average of Three Best Years' Annual Salaries X Pension Right

STEP 4: Determine the Monthly Pension

Divide the Annual Pension by 12 to obtain the Monthly Pension.

$$\textbf{Monthly Pension} = \frac{Annual\ Pension}{12}$$

STEP 5: Compute the Survivors' Benefit

Under PNDCL 247

Compute the present value of the member's pension for a period of twelve years (or 144 months), using the prevailing Treasury bill rate or 10% whichever is the lower as the discount rate.

Survivors' Benefit = Annuity Factor X Monthly Pension

$$\textbf{Annuity Factor} = \frac{\left[1-\left(1+\frac{Discount\ Rate}{12}\right)^{-144}\right]}{\frac{Discount\ Rate}{12}}$$

Annuity factor value for a period of 144 months at a discount rate of 10% is 83.67653

Survivors' Benefit = 83.67653 X Monthly Pension

Under Act 766

Compute the present value of the member's pension for a period of fifteen years (or 180 months), using the prevailing Treasury bill rate or 10% whichever is the lower as the discount rate.

Survivors' Benefit = Annuity Factor X Monthly Pension

$$\textbf{Annuity Factor} = \frac{\left[1-\left(1+\frac{Discount\ Rate}{12}\right)^{-180}\right]}{\frac{Discount\ Rate}{12}}$$

Annuity factor value for a period of 180 months at a discount rate of 10% is **93.05744**

Survivors' Benefit = 93.05744 X Monthly Pension

5.3.2 Pensioner Death Survivors' Benefit

The Pensioner Death Survivors Benefit is computed as the present value of the unexpired pension of the deceased not exceeding 144 months under PNDCL 247 and 180 months under At 766 using the prevailing Treasury bill rate or ten percent (10%), whichever is the lower.

Follow the five-step procedure to calculate the Monthly Pension

STEP 1: Determine the Age at Death of the Pensioner

Determine the age of the pensioner in complete years and months (rounded to the nearest whole month at the time of death

Age of Pensioner at Death = Date of Death - Date of Birth

STEP 2: Monthly Pension

Use the Monthly Pension being paid to the Pensioner at the time of death.

STEP 3: Calculate the Period of Unexpired Pension Payments

Calculate the number of Months of Unexpired Pension Payments at the time of death of the Pensioner.

a. If a Pensioner dies at any age up to the age of 60 years (in the case of early retirement or invalidity pension) the Number of months of unexpired pension is 144 (under PNDCL 247 and 180 (under Act 766)

PNDCL 247: Number of Months of Unexpired Pension = 144
Act 766: Number of Months of Unexpired Pension = 180

b. PNDCL 247

If a Pensioner dies at any age above the exact age of 60 years but less than the exact age of 72

Number of Months of Unexpired Pension

= Number of Monthly Pension Payments remaining up to the Exact Age of 72

c. Act 766

If a Pensioner dies at any age above the exact age of 60 years but less than the exact age of 75

Number of Months of Unexpired Pension

= Number of Monthly Pension Payments remaining up to the Exact Age of 75

STEP 4: Compute the Survivors' Benefit

The present value of the member's pension for the unexpired period (in months), using the prevailing Treasury bill rate at the time of death or ten percent, whichever is the lower.

Survivors' Benefit = Annuity Factor X Monthly Pension (at time of death)

$$\text{Annuity Factor} = \frac{\left[1-\left(1+\frac{Discount\ Rate}{12}\right)^{-unexpired\ period}\right]}{\frac{Discount\ Rate}{12}}$$

NB: Due to the inconsistencies of the 91-day Treasury bill rates a discount rate of 10% has been used since 1991.

STEP 5: Deduct Extra Pension Payments

- Sum any monthly Pension paid after the Date of Death
- Deduct the additional PENSION PAYMENTS made since the Death of Pensioner from the Survivors' Benefit obtained in STEP 4 (if any).

5.3.3 Survivors' Grant (Return of Contributions with interest)

The Survivors' benefit is a lump sum amount equivalent to the total contributions plus the interest on the contributions computed at the prevailing Government Treasury bill rate.

Applicable Interest Rates

Under PNDCL 247

The interest is computed using one-half of the prevailing 91-day Government Treasury bill rates from the date of joining the scheme to date of payment.

Under Act 766

The interest is computed using one-half of the prevailing 91-day Government Treasury bill rates from the date of joining the scheme to December 2009. From January 2010 to date of payment, the interest rate is three-quarters of the prevailing 91-day Government Treasury bill rates.

5.3.4 Procedure for Computing Survivors' Grant

The methodology for the computation of the Survivors' Grant is as follows:

(i) *Accumulate each contribution payment using the applicable interest rate up to the month of last contribution payment prior to death.*

(ii) *Sum up the* ***Accumulated amount*** *for each contribution payment to obtain the* ***Survivors' Benefit*** *(i.e. The Lump Sum).*

Survivors' Benefit = Sum of Accumulated value of Contribution Payments

5.3.5 Survivors' Benefit Payment

For each nominated beneficiary/dependent the computed benefit (i.e. Survivors' Benefit) shall be distributed as follows:

Benefit due Beneficiary = Percentage Awarded Beneficiary X Survivors' Benefit

Example 13:

A member who has contributed to the scheme for a period of 250 months dies aged 56 years 2 months with the following three best annual salaries of GH₵60,000, GH₵58,000 and GH₵44,000. Calculate the Survivors' Benefit:

(i) Under PNDCL 247

(ii) Under Act 766

STEP 1: Determine the Pension Right

A member died aged 56 years 2 months and whilst working (i.e. before retirement) and therefore this constitutes a **Worker Death Survivors' Benefit.**

Under PNDCL 247

A total number of months of contributions of 250 (under PNDCL 247) would give a pension right value equal to**:**

PENSION RIGHT = 0.5 + [Total number of months of contributions - 240] x 0.00125

PENSION RIGHT = 0.50 + [250 - 240] x 0.00125 = 0.5125 or 51.25%

Under Act 766

A total number of months of contributions of 250 (under Act 766) would give a pension right value equal to:

PENSION RIGHT = 0.375 + [Total number of months of contributions - 180] x 0.0009375

PENSION RIGHT = 0.375 + [250 - 180] x 0.0009375= 0.4406 or 44.06%

STEP 2: Determine the Three Best Years' Annual Salaries

The Three Best Years' Annual Salaries prior to the death given are:

[Salary 1]: GH₵60,000

[Salary 2]: GH₵58,000

[Salary 3]: GH₵44,000

The average of the Three Best Years' Annual Salaries is computed as:

Average of Three Best Years' Annual Salaries = $\frac{Salary1 + Salary2 + Salary3}{3}$

Average of Three Best Years' Annual Salaries = $\frac{60{,}000 + 58{,}000 + 44{,}000}{3} = 54{,}000$

STEP 3: Compute the Annual Pension

Annual Pension = Average of Three Best Years' Annual Salaries X Pension Right

Under PNDCL 247

Annual Pension = 54,000X 0.5125 = GH₵27,675.00

Under Act 766

Annual Pension = 54,000X 0.4406 = GH₵23,792.40

STEP 4: Determine the Monthly Pension

Divide the Annual Pension by 12 to obtain the Monthly Pension

$$\textbf{Monthly Pension} = \frac{Annual\ Pension}{12}$$

PNDCL 247: *The Monthly Pension is* **GH₵27,675.00/12 = GH₵2,306.25**

ACT 766: *The Monthly Pension is* **GH₵23,792.40/12 = GH₵1,982.70**

STEP 5: Compute the Survivors' Benefit

The Survivors' Benefit is computed as follows:

Survivors' Benefit = Annuity Factor X Monthly Pension

Under PNDCL 247

Annuity factor value for a period of 144 months at a discount rate of 10% is **83.67653**

Thus, the present value of the member's monthly pension of **GH₵2,306.25** for a period of twelve years (or 144 months), at a discount rate of 10% is calculated as follows:

Survivors' Benefit = 83.67653 X GH₵2,306.25 = GH₵192,979.00

Under Act 766

Annuity factor value for a period of 180 months at a discount rate of 10% is **93.05744**

Thus, the present value of the member's monthly pension of **GH₵1,982.70** for a period of twelve years (or 180 months), at a discount rate of 10% is calculated as follows:

Survivors' Benefit = 93.05744 X GH₵1,982.70 = GH₵184,504.99

Example 14

A pensioner with date of birth 25th December 1952 retired on 25TH December 2012 and died on 27th March 2015 after receiving his monthly pension amount of GH₵1,000. Calculate the Survivors' Benefit:

(i) Under PNDCL 247
(ii) Under Act 766

STEP 1: Determine the age at death of the pensioner

The age of the pensioner in complete years and months at time of death is 62 years 3 months.

STEP 2: Monthly Pension

The Monthly Pension being paid to the Pensioner at the time of death has been given as:

Monthly Pension = GH₵1,000

STEP 3: Calculate the period of Unexpired Pension Payments

Under PNDCL 247

The number of Months of Unexpired Pension Payments at the time of death of the Pensioner is given as:

Number of Months of Unexpired Pension
= Number of Monthly Pension Payments remaining up to the exact Age

Number of Months of Unexpired Pension = (Age 72 – Age 62)*12+9 months in Age 62

Number of Months of Unexpired Pension =9*12+9 =117

Under Act 766

The number of Months of Unexpired Pension Payments at the time of death of the Pensioner is given as:

Number of Months of Unexpired Pension
= Number of Monthly Pension Payments remaining up to the exact Age

Number of Months of Unexpired Pension = (Age 75 – Age 62)*12+9 months in Age 62

Number of Months of Unexpired Pension =12*12+9 =153

STEP 4: Compute the Survivors' Benefit

Compute the present value of the member's pension for the unexpired period (in months), using a 10% discount rate.

Survivors' Benefit = Annuity Factor X Monthly Pension (at time of death)

Under PNDCL 247

A discount rate of 10% gives an Annuity factor for a period of **117 months** as

$$\textbf{Annuity Factor} = \frac{\left[1-\left(1+\frac{0.1}{12}\right)^{-117}\right]}{\frac{0.1}{12}} = \textbf{74.55368}$$

Thus, the present value of the member's monthly pension of **GH₵1,000** for the unexpired period of 117 months at a discount rate of 10% is calculated as follows:

Survivors' Benefit = 74.55368 X GH₵1,000 = GH₵74,553.68

Under Act 766

A discount rate of 10% gives an Annuity factor for a period of **153 months** as

$$\textbf{Annuity Factor} = \frac{\left[1-\left(1+\frac{0.1}{12}\right)^{-153}\right]}{\frac{0.1}{12}} = \textbf{86.290661}$$

*Thus, the present value of the member's monthly pension of **GH₵1,000** for the unexpired period of 153 months at a discount rate of 10% is calculated as follows:*

Survivors' Benefit = 86.290661 X GH₵1,000 = GH₵82,290.66

6. EMIGRATION

6.1 Emigration Benefits

The Emigration benefit is a lump sum benefit (that is the present value of the member's pension for a period of 180 months under Act 766, using the prevailing Treasury bill rate or ten percent, whichever is the lower) paid to a member who is permanently relocating to the home country.

Follow the five-step procedure to calculate the Monthly Pension.

STEP 1: Compute the Pension Right

Under Act 766

- Where the member has contributed for a period of not less than 180 months, the member shall be entitled to a pension right (or **pension credit**) equivalent to that of the Old-age retirement pension.

PENSION RIGHT=0.375 + [Total number of months of contributions -180] x 0.0009375

STEP 2: Determine the Average of Three Best Years' Annual Salary

The pension amount is based on the ***Average of Three Best Years' Annual Salaries*** on which Social Security contributions were paid.

The Three Best Years' Annual Salaries (TBYAS) are determined from the Best 36 Months of Average Monthly Salaries.

The factors that are considered when computing the TBYAS are the following:

- Total Contributions for each year of working Life (amount and corresponding number of months)
- Total Contributions used to repay Students Loan (amount and corresponding number of months)

The Three Best Years' Annual Salaries are obtained from the net contributions after number of months of contribution and amount of contribution used to repay students' loan have been taken care of.

To determine the ***Average of Three Best Years' Annual Salaries*** do the following:

Best 1st Year Salary = Highest 12 Months of Average Monthly Salary

Best 2nd Year Salary = Next Highest 12 Months of Average Monthly Salary

Best 3rd Year Salary = Next Highest 12 Months of Average Monthly Salary

[Salary 1]:	The highest annual salary
[Salary 2]:	The second highest annual salary
[Salary 3]:	The third highest annual salary

Average of Three Best Years Annual Salaries =

$$\frac{Salary1 + Salary2 + Salary3}{3}$$

STEP 3: Compute the Annual Pension

Multiply the Average of the Three Best Years' Annual Salaries by the Pension Right to obtain the Annual Pension.

Annual Pension = Average of Three Best Years' Annual Salaries X Pension Right X Early Age Reduction Factor

STEP 4: Determine the Monthly Pension

Divide the Annual Pension by 12 to obtain the Monthly Pension.

$$\textbf{Monthly Pension} = \frac{Annual\ Pension}{12}$$

STEP 5: Compute the Emigration Benefit

Compute the present value of the member's pension for a period of fifteen years (or 180 months), using the prevailing Treasury bill rate or 10% whichever is the lower as the discount rate.

Emigration Benefit = Annuity Factor X Monthly Pension

$$\textbf{Annuity Factor} = \frac{\left[1 - \left(1 + \frac{Discount\ Rate}{12}\right)^{-180}\right]}{\frac{Discount\ Rate}{12}}$$

Annuity factor value for a period of 180 months at a discount rate of 10% is **93.05744**

Emigration Benefit = 93.05744 X Monthly Pension

6.2 Old Age Lumpsum for Emigrant

This is paid to a member who is migrating and has contributed for less than 180 months.

1. The contribution of the contributor is returned with an interest calculated at 75% of the prevailing Treasury bill rates.
2. This amount shall be paid as the lumpsum benefit.

Where the emigrant is already on Pension.

1. The Present value of the pension will be calculated using the remaining of the guaranteed period.
2. This will be paid to the emigrant as a lumpsum.

6.3 Invalidity Pension for Emigrants

An Emigrant qualifies for Invalidity Pension if the member satisfies the following conditions;

- The member of the scheme must have made a minimum contribution of 12 months within the last 36 months before the occurrence of invalidity.
- The member must have been declared permanently invalid and incapable of any normal gainful employment and certified by a Medical Board.

After the member has been certified to be invalid the member will be entitled to a benefit as with the following assumptions:

- The member qualifies for a full pension
- The member has contributed for at least 180 months

Maximum Pension Right = 60%

6.4 Survivor's Lump sum Benefit for Emigrants

Survivors of an emigrant will receive a benefit when an emigrant member of the scheme dies.

There are two types of Survivor's benefit

Worker death is when the member dies before retirement.

- Pensioner death is when a pensioner dies before attaining age 75.

Calculation of Survivors' Benefit for Emigrants.

This benefit is computed as follows:

1. Where the worker dies without making at least twelve (12) months contributions within the last thirty six (36) months, a lump sum payment equal to the total contributions and interest on the lump sum at the rate of seventy-five percent (75%) of the prevailing 91 - day Treasury bill rates will be paid to the nominees.

2. Where the worker dies having made at least twelve (12) months contributions within the last thirty six (36), the nominees will be paid a survivor's lumpsum based on the following assumptions;
    - The member qualifies for a full pension
    - The member has contributed for at least 180 months
3. Where a Pensioner dies the present value of the member's unexpired monthly pension will be paid to his beneficiaries.

Computation of Monthly Pension - Worksheet

STEP 1: Determine the age at retirement and Early Retirement Reduction Factor

Age at Retirement =

Early Retirement Reduction Factor =

Which Law Applies? **PNDC Law 247** ☐ **Act 766** ☐

STEP 2: Calculate the Pension Right

ACT 766: PENSION RIGHT = 0.375 + [Total number of months of contributions - 180] x 0.0009375

PENSION RIGHT =

PNDCL 247: PENSION RIGHT = 0.50 + [Total number of months of contributions - 240] x 0.00125

PENSION RIGHT =

STEP 3: Determine the three best years' annual salaries

[Salary 1]:

[Salary 2]:

[Salary 3]:

Average of three best years' annual salaries = $\frac{Salary1 + Salary2 + Salary3}{3}$

Average of three best years' annual salaries =

STEP 4: Compute the Annual Pension

Annual Pension = **Average of three best years' annual salaries**
X Pension Right
X Early Retirement Reduction Factor

Annual Pension =

Annual Pension =

STEP 5: Determine the Monthly Pension

Monthly Pension = $\frac{Annual\ Pension}{12}$ **=**

STEP 6: Determine the Residual Monthly Pension

Residual Monthly Pension = 0.75 x Monthly Pension

Residual Monthly Pension = 0.75 x

=

Computation of 25% Lump sum/Residual Pension

25% Lump Sum = 0.25 X 83.67653 X Monthly Pension

25% Lump Sum = 0.25 X 83.67653 X [ ]

=

Early Retirement Reduction Factor Table

Years	Age	Additional Months											
		0	1	2	3	4	5	6	7	8	9	10	11
	55	0.600	0.6063	0.6125	0.6188	0.6250	0.6313	0.6375	0.6438	0.6500	0.6563	0.6625	0.6688
	56	0.6750	0.6813	0.6875	0.6938	0.7000	0.7063	0.7125	0.7188	0.7250	0.7313	0.7375	0.74375
	57	0.7500	0.7562	0.7625	0.7687	0.7750	0.7812	0.7875	0.7937	0.8000	0.8062	0.8125	0.81875
	58	0.8250	0.8312	0.8375	0.8437	0.8500	0.8562	0.8625	0.8687	0.8750	0.8812	0.8875	0.89375
	59	0.9000	0.9083	0.9167	0.9250	0.9333	0.9417	0.9500	0.9583	0.9667	0.9750	0.9833	0.9917
	60 and above	1.0000											

Computation of Survivors' Benefit (Death in Service) - Worksheet

STEP 1: Determine the age at death

Age at Retirement =

STEP 2: Calculate the Pension Right

ACT 766: PENSION RIGHT = 0.375 + [Total number of months of contributions - 180] x 0.0009375

PENSION RIGHT =

IF NUMBER OF MONTHS OF CONTRIBUTION IS LESS THAN 180, THEN PENSION RIGHT =

PNDCL 247: PENSION RIGHT = 0.50 + [Total number of months of contributions - 240] x 0.00125

PENSION RIGHT =

IF THE NUMBER OF MONTHS OF CONTRIBUTION IS LESS THAN 240, THEN PENSION RIGHT =

STEP 3: Determine the three best years' annual salaries

[Salary 1]:
[Salary 2]:
[Salary 3]:

Average of three best years' annual salaries = $\frac{Salary1 + Salary2 + Salary3}{3}$

Average of three best years' annual salaries =

STEP 4: Compute the Full Annual Pension

Full Annual Pension = Average of three best years' annual salaries X Pension Right

Full Annual Pension =

Full Annual Pension =

STEP 5: Determine the Monthly Pension

Full Monthly Pension = $\frac{Annual\ Pension}{12}$ **=**

STEP 6: Determine the Discounting Factor

Discounting Factor = $$\frac{\left[1-\left(1+\frac{Discount\ Rate}{12}\right)^{-N}\right]}{\frac{Discount\ Rate}{12}}$$

N = ACT 766 = 180 PNDC LAW 247 = 144

STEP 7: Determine The Survivors' Benefit

PNDC LAW 247
Survivors Benefit = Full Monthly pension X Discount Factor

= Full Monthly Pension X 83.67653

=

ACT 766
Survivors Benefit = Full Monthly pension X Discount Factor

= Full Monthly Pension X 93.05744

=

Annual Indexation Rates				
	Indexation	**Inflation**		**MINIMUM**
	Factor	**Flat Rate**	**Flat Amount**	**PENSION**
1990				
1991	17.0%			
1992	21.0%			5,000.00
1993	86.0%			5,000.00
1994	45.0%			5,000.00
1995	10.0%			5,000.00
1996	30.0%			5,000.00
1997	25.0%			8,500.00
1998	14.0%			8,500.00
1999	12.5%			8,500.00
2000	20.0%			10,000.00
2001	21.8%	15.0%	5,000.00	15,000.00
2002	39.0%	5.0%	35,000.00	50,000.00
2003	34.0%	13.0%	31,313.25	90,000.00
2004	21.8%	15.0%	15,612.33	100,000.00
2005	27.40%	12.5%	44,090.00	125,000.00
2006	20.00%	15.0%	19,957.31	150,000.00
2007	15.00%	10.5%	29,323.17	182,000.00
2008	17.10%	11.0%	40,500.00	22.00
2009	21.60%	16.2%	4.93	26.00
2010	21.70%	11.0%	13.25	42.11
2011	7.00%	0.0%	10.03	45.06
2012	12.00%	5.00%	15.27	50.46
2013	22.60%	12.00%	21.36	100.00
2014	20.00%	10.00%	9.52	200.00
2015	15.00%	5.00%	36.92	230.00
2016	20.00%	12.00%	39.29	276.00

Note : From the year 2008 the amounts recorded are in New Ghana Cedis
Minimum Pensions are paid to new awards whose computed Monthly Pension are below the minimum Pension

APPENDIX 1 - DISCOUNTING FACTORS									
Unexpired No. of Mths	Discounting Factors		Unexpired No. of Mths	Discounting Factors		Unexpired No. of Mths	Discounting Factors		Unexpired No. of Mths	Discounting Factors
180	93.0574		134	80.5335		88	62.1880		42	35.3147
179	92.8329		133	80.2046		87	61.7062		41	34.6090
178	92.6065		132	79.8730		86	61.2204		40	33.8974
177	92.3782		131	79.5386		85	60.7306		39	33.1799
176	92.1481		130	79.2014		84	60.2367		38	32.4564
175	91.9160		129	78.8614		83	59.7386		37	31.7268
174	91.6819		128	78.5186		82	59.2365		36	30.9912
173	91.4459		127	78.1729		81	58.7301		35	30.2495
172	91.2080		126	77.8244		80	58.2195		34	29.5016
171	90.9681		125	77.4729		79	57.7047		33	28.7474
170	90.7261		124	77.1185		78	57.1856		32	27.9870
169	90.4822		123	76.7612		77	56.6621		31	27.2202
168	90.2362		122	76.4008		76	56.1343		30	26.4470
167	89.9882		121	76.0375		75	55.6021		29	25.6674
166	89.7381		120	75.6712		74	55.0654		28	24.8813
165	89.4859		119	75.3018		73	54.5243		27	24.0887
164	89.2316		118	74.9293		72	53.9787		26	23.2894
163	88.9752		117	74.5537		71	53.4285		25	22.4835
162	88.7167		116	74.1750		70	52.8737		24	21.6709
161	88.4560		115	73.7931		69	52.3143		23	20.8514
160	88.1931		114	73.4080		68	51.7503		22	20.0252
159	87.9280		113	73.0198		67	51.1815		21	19.1921
158	87.6608		112	72.6283		66	50.6081		20	18.3520
157	87.3913		111	72.2335		65	50.0298		19	17.5050
156	87.1195		110	71.8354		64	49.4467		18	16.6508
155	86.8455		109	71.4341		63	48.8588		17	15.7896
154	86.5693		108	71.0294		62	48.2659		16	14.9212
153	86.2907		107	70.6213		61	47.6681		15	14.0455
152	86.0098		106	70.2098		60	47.0654		14	13.1626
151	85.7265		105	69.7949		59	46.4576		13	12.2722
150	85.4409		104	69.3765		58	45.8447		12	11.3745
149	85.1529		103	68.9546		57	45.2268		11	10.4693
148	84.8625		102	68.5292		56	44.6037		10	9.5565
147	84.5697		101	68.1003		55	43.9754		9	8.6362
146	84.2744		100	67.6678		54	43.3418		8	7.7081
145	83.9767		99	67.2317		53	42.7030		7	6.7724
144	83.6765		98	66.7920		52	42.0589		6	5.8288
143	83.3738		97	66.3486		51	41.4093		5	4.8774
142	83.0686		96	65.9015		50	40.7544		4	3.9180
141	82.7609		95	65.4507		49	40.0940		3	2.9507
140	82.4505		94	64.9961		48	39.4282		2	1.9753
139	82.1376		93	64.5377		47	38.7567		1	0.9917
138	81.8221		92	64.0755		46	38.0797		0	-
137	81.5039		91	63.6095		45	37.3970			
136	81.1831		90	63.1396		44	36.7087			
135	80.8597		89	62.6657		43	36.0146			