Entrepreneurs are required to make several investment decisions in the process of

managing their firms. Below are the criteria of capital budgeting for Nelson’s Enterprise:

§ Nelson’s Enterprise has two mutually exclusive projects, Project-A and Project-B

which requires an outlay of $2,000 and $1,800 respectively.

§ Baron can afford only one of the projects.

§ First, Nelson’s Enterprise needs to determine the expected return on Project-A and

Project-B :

- Expected Life – 2 years

- Applicable tax rate – 47.50 %

- Depreciation = Cost/Life

- Anticipated change in net income for Project-A in Year 1,2 is $1200, $1000

- Anticipated change in net income for Project-B in Year 1,2 is $820, $950

§ Secondly, Nelson’s Enterprise needs to buy a server which cost $3,000 for the

business, but is unsure which of the two proposals to accept. Using the Payback

Method, help Nelson’s Enterprise to make decision.

§ Thirdly, Nelson’s Enterprise would like to seek more information before making his

final decision. The company would like to use Net Present Value (NPV) method. The

cost of capital is 8.45 percent. Round the discount factor to TWO (2) decimal places.

i) Determine the expected return on Project-A and Project-B.

Expected returns = X (1 – T) + Depreciation

X = Net Operating Income

T = Appropriate Tax RATE = 47.5%/0.475%

**Project A**

**Y1**

X= 1200

1-T = 52.5%

X \* (1 – T) = 630

Depreciation = 2000/2 = 1000

Expected returns = 630 + 1000 = 1630

**Y2**

X= 1000

1-T = 52.5%

X \* (1 – T) = 525

Depreciation = 2000/2 = 1000

Expected returns = 525 + 1000 = 1525

**ANSWER: 1525 + 1630 = 3155**

**Project B**

**Y1**

X= 820

1-T = 52.5%

X \* (1 – T) = 430.5

Depreciation = 1800/2 = 900

Expected returns = 430.5 + 900 = 1330.5

**Y2**

X= 950

1-T = 52.5%

X \* (1 – T) = 430.5

Depreciation = 1800/2 = 900

Expected returns = 498.75 + 900 = 1398.75

**ANSWER:** 1330.5**+** 1398.75**= 2729.25**

ii) Compute the payback period for Project-A and Project-B. Give suggestion after the

computation.

Payback period Project A > Project B as it has higher NPV and shorter payback period

PA payback = between Y1 & Y2

PB payback = After Year 2

iii) Calculate the NPV for Project-A and Project-B. Give suggestion on the NPV

calculation.

**PA**

**Y1**

**CASH FLOW : 1630, DISCOUNT FACTOR = 0.92, Present VALUE = 1499.6**

**Y2**

**CASH FLOW : 1525, DISCOUNT FACTOR = 0.85, Present VALUE = 1296.25**

**Total = 2795.85**

**Initial outlay = 2000**

**NPV = 795.85**

**PB**

**Y1**

**CASH FLOW : 1330.5, DISCOUNT FACTOR = 0.92, Present VALUE = 1224.06**

**Y2**

**CASH FLOW : 1398.75, DISCOUNT FACTOR = 0.85, Present VALUE = 1188.94**

**Total = 2413**

**Initial outlay = 1800**

**NPV = 613**