

**Sen Finance FIN102 - III
Practice Questions
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The following information is for Questions 1 to 10: The different scenarios for the following project which lasts for 10 years and cash flows are discounted at 7% and which requires an initial investment of \$4,000,000 (tax rate is 34%). Fixed costs are zero and depreciation is straight line over 10 years:

| Scenario | Base | Lower | Upper |
|-----------------------|---------------|--------------|---------------|
| Unit Sales | 10,000 | 9,000 | 11,000 |
| Unit Price | \$200 | \$150 | \$250 |
| Variable Costs | \$80 | \$60 | \$100 |

Question 1) What is the Base Case NPV for Scenario Analysis?

- A) 2,329,684**
- B) 2,517,884**
- C) 2,794,284**
- D) 2,853,484**

Question 2) What are the Unit Sales you should take for computing the Worst Case NPV for Scenario Analysis?

- A) 9,000**
- B) 10,000**
- C) 11,000**
- D) 12,000**

Question 3) What is the Worst Case NPV for Scenario Analysis?

- A) +2,210,400**
- B) +958,789**
- C) -958,789**
- D) -2,210,400**

Question 4) What are the Variable Costs you should take for computing the Best Case NPV for Scenario Analysis?

- A) 40**
- B) 60**
- C) 80**
- D) 100**

Question 5) What is the Best Case NPV for Scenario Analysis?

- A) 6,644,000**
- B) 7,294,000**
- C) 8,494,000**
- D) 9,694,000**

Question 6) What are Unit Sales you should take for calculating Best Case NPV for Sensitivity Analysis with respect to Unit Price?

- A) 0
- B) 9,000
- C) 10,000
- D) 11,000

Question 7) What is the Unit Price you should take for calculating Best Case NPV for Sensitivity Analysis with respect to Unit Price?

- A) 100
- B) 150
- C) 250
- D) 275

Question 8) What is the Best Case NPV for Sensitivity Analysis with respect to Unit Price?

- A) 4,236,000
- B) 4,336,000
- C) 4,436,000
- D) 4,836,000

Question 9) When we have a project that has Accounting Breakeven and all future cash flows are positive:

- I) we have accounting Net Income to be greater than zero.
- II) we have NPV to be less than zero.

- | | Statement I | Statement II |
|----|--------------------|---------------------|
| A) | True | True |
| B) | True | False |
| C) | False | True |
| D) | False | False |

Question 10) I) Suppose a firm finances a project using borrowed money. Then for NPV to be positive we must have the Rate of Return from the project to be less than the Rate of Interest on the borrowed money.

II) If a firm has two mutually exclusive projects (for example, due to limited resources or limited funding) then it should choose the project with a lower NPV.

- | | Statement I | Statement II |
|----|--------------------|---------------------|
| A) | True | True |
| B) | True | False |
| C) | False | True |
| D) | False | False |

Information for Questions 11 to 17: Future Motors is deciding whether to undertake a project to manufacture cars. Each car has a variable cost of \$8,000 to produce. The fixed costs per year for the factory will be \$1,000,000. The initial investment

required to set up the factory will be \$10,000,000. The factory will last 5 years after which it will have no salvage value.

Depreciation is straight line.

The firm expects to sell each car for \$15,000 (price constant for the 5 years during which the factory produces the cars). The tax rate is 40% and the firm's discount rate for such projects is 12%.

Question 11) What is the depreciation every year?

- A) 0 B) 5,000,000 C) 2,000,000 D) 3,000,00

Question 12) What is the increase in profit for every extra unit sold?

- A) 6,000 B) 7,000 C) 15,000 D) 23,000

Question 13) How many cars does the firm have to sell each year for accounting break even?

- A) 353 B) 379 C) 429 D) 500

Question 14) What will be the taxes paid by the firm when it has accounting break even?

- A) 143,597 B) 343,079 C) 893,354 D) 0

Question 15) What is the cash flow to the firm every year when it has accounting break even?

- A) 2,000,000 B) 3,000,000 C) 5,000,000 D) 0

Question 16) What will be the NPV of the project if the firm achieves accounting break even for each of the five years?

- A) -2,790,000 B) -4,421,000 C) 0 D) -10,000,000

Question 17) What is the cash flow the firm requires every year to have a zero NPV?

- A) 2,000,000 B) 2,774,000 C) 3,728,000 D) 10,000,000

Question 18)

I) If the discount rate increases, the quantity required to be sold for accounting break even increases.

II) A firm looking to increase its value should not accept a project that has accounting break even (all future cash flows positive).

- | | I | II |
|----|-------|-------|
| A) | True | True |
| B) | False | True |
| C) | True | False |
| D) | False | False |

1) B

- 2) A
- 3) C
- 4) B
- 5) A
- 6) C
- 7) C
- 8) D
- 9) C
- 10) D
- 11) C
- 12) B
- 13) C
- 14) D
- 15) A
- 16) A
- 17) B
- 18) B

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