

Course No: MGNE 4327  
Course Title: Feasibility Study  
Date: 17/01/2018  
No. of Questions: (3)  
Time: 2 hours  
Using Calculator (Yes)

University of Palestine  
  
Final Exam.  
1<sup>st</sup> Semester 2017/2018  
Total Grade: 50

Instructor Name: Yousef ElMudallal  
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College Name: \_\_\_\_\_  
Dep. / Specialist: \_\_\_\_\_  
Using Dictionary (No)

Answer the following five questions:

**Q.1: True or False**

**12 marks**

1. Risk is measured as the range of variation around an expected value ( )
2. Choosing a good location for the project is more important in manufacturing projects than retail trade ( )
3. The replacement chain, or common life, approach is applicable whether two projects with differing lives are mutually exclusive or independent ( )
4. Considering technical aspects of the project development should begin during the planning stages ( )
5. If the Net Present Value is positive, then the project should be accepted ( )
6. The IRR is a relative measure, and measure an increase in the firm's wealth ( )
7. When ranking between Mutually Exclusive Projects, we can depend on IRR only ( )
8. If the IRR is greater than the required rate of return, then the project should be accepted. ( )
9. Forecasting quantitative techniques can be used without need for past information about the variable being forecast is available ( )
10. All the indirect or synergistic effects of a project should be included in the cash flow calculation. ( )
11. If Project A is riskier than project B, its RADR will be less than project B's RADR ( )
12. Smoothing models are generally provide reasonable forecasts for the short- to medium-term forecasting periods ( )

**Q.2: Answer four of the following questions**

**18 marks**

1. Mention three of the pitfalls you may encounter by using the internal rate of return (IRR).
2. Explain Four of the following terms with equations if applicable:-
  - a. Modified Internal Rate of Return
  - b. Certainty Equivalent.
  - c. Independent Projects.
  - d. Discounted cash flow valuation
  - e. The risk-adjusted discount rate method (RADR)
3. Technical aspects of the project development should begin during the planning stages, in your opinion, to what are the most important output of technical analysis?
4. Assume a firm has a capital structure of 60% common stock, 10% preferred stock, 30% long term debt. Rates of return required by the holders of each are; common, 10%; preferred, 8%; after tax debt, 5%.

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**Required**

1. Compute the weighted average cost of capital
2. If you know that an additional risk factor for a considered project (a) is 2%, what will be the discount rate that can be used in evaluating project?
5. Your company has a cost of capital equal to 10%. If the following projects are mutually exclusive, and you only have the information that is provided, which should you accept?

	A	B	C	E
Payback (years)	1	5	2	5
IRR	18%	20%	20%	12%
NPV (Millions)	\$40	\$75	\$35	\$100

**Q.3: Answer the following questions**

**20marks**

1. The Future Company is evaluating an investment proposal. Certainty Equivalent Coefficients and the expected cash flows are presented in following Table Data in the financial press indicate that the government bond yield for two- to five-year maturities is around 4% per annum. Government bond yield is a suitable proxy for the risk-free rate.

<u>End of year</u>	<u><math>b_t</math></u>	<u>Expected Cash Flows (\$)</u>
0	1	-3500 Capital outlay
1	0.9	2,500
2	0.8	3,300
3	0.7	4000

**Required**

1. Compute the certainty equivalent NPV for the project
2. Explain If the project is accepted or not
2. Cotner Clothes Inc. is considering the replacement of its old, fully depreciated knitting machine. Two new models are available:
  - a. Machine A, which has a cost of \$190,000, a 3-year expected life, and after-tax cash flows (labor savings and depreciation) of \$87,000 per year;
  - b. Machine B, which has a cost of \$360,000, a 6-year life, and after-tax cash flows of \$98,300 per year.

Assume both projects can be repeated and Cotner's WACC is 12 percent and an additional risk factor (*a*) of 2% is usually used by Cotner Clothes for these types of replacement projects. Which new machine should it use? Use both the replacement chain and EAA approaches to arrive at your answer.

**Good Luck**