National University of Science and Technology

Think in Other Terms

FACULTY OF COMMERCE

DEPARTMENT OF FINANCE

MASTER OF SCIENCE IN FINANCE AND INVESTMENT

MASTER OF SCIENCE IN FINANCIAL ENGINEERING

FIRST SEMESTER FINAL EXAMINATION–NOVEMBER 2015

ADVANCED CORPORATE FINANCIAL STRATEGY [CFI 5102]

TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1. Answer any FOUR (4) questions
2. Write legibly

INFORMATION FOR CANDIDATES

1. The businesses in this question paper are intended to be fictitious
2. This question paper contains FIVE (5) questions
3. This paper contains SIX (6) printed pages
4. All questions carry equal marks [25 marks]

ADDITIONAL MATERIAL

Standard Normal Distribution Tables

QUESTION ONE

a) Total S.A. (Euronext Paris: FP), one of France's largest corporations and the world's fifth largest publicly traded integrated petroleum company, operates in more than 130 countries. Total engages in all aspects of the petroleum industry, produces base chemicals and specialty chemicals for the industrial and consumer markets, and has interests in the coal mining and power generation sectors. To meet growing energy needs on a long-term basis, Total considers sustainability when making decisions. Selected financial information for Total appears below

Selected Financial Information for Total S.A.

Year	**2008**	**2007**	**2006**	**2005**	**2004**
EPS	€6.20	€5.37	€5.44	€5.08	€3.76
DPS	€2.28	€2.07	€1.87	€1.62	€1.35
Payout ratio	37%	39%	34%	32%	36%
ROE	32%	31%	33%	35%	33%
Share price	€38.910	€56.830	€54.650	€52.367	€39.65

(Paris Bourse)

Source: Company website: www.total.com.

The analyst estimates the growth rate to be approximately 14 percent based on the dividend growth rate over the period 2004 to 2008. To verify that the estimated growth rate of 14 percent is feasible in the future, the analyst also uses the average of Total's retention rate and ROE for the previous five years to estimate the sustainable growth rate. Using a number of approaches, including adding a risk premium to a long- term French government bond and using the CAPM, the analyst estimates a required return of 19 percent. The most recent dividend of €2.28 is used for D_0.

i. Estimate Total's intrinsic value. **[4 marks]**

ii. How much does the dividend growth assumption add to the intrinsic value estimate? **[2 marks]**

iii. Based on the estimated intrinsic value, is a share of Total undervalued, overvalued, or fairly valued? **[2 marks]**

iv. What is the intrinsic value if the growth rate estimate is lowered to 13 percent and the required rate of return estimate is increased to 20 percent? **[3 marks]**

v. Highlight the importance of sensitivity analysis when making corporate investment decision in relation to the scenario above. **[4 marks]**

b) Examine the applicability of Real Option Analysis (ROA) as an investment appraisal technique from an emerging or developing market perspective (e.g. Zimbabwe). Your assessment should provide an insight on how ROA may (or may not) add economic value to investment projects and the managerial implications it provides for decision-making. **[10 marks]**

Total [25 marks]

QUESTION TWO

a) Explain the relationship between the financial strategy of a firm and its growth pattern. **[15 marks]**

b) NBC has the rights to televise the Winter Olympics in 2 years and is trying to estimate the value of these rights for possible sale to another network. NBC expects it to cost $40 million (in present value terms) to televise the Olympics and based upon current assessments NBC expects to have a Nielsen rating 7 of 15 for the games. Each rating point is expected to yield net revenue of $2 million to NBC (in present value terms). There is substantial variability in this estimate and the standard deviation in the expected net revenues is 30%. The riskless rate is 5%.

   i. What is the net present value of these rights, based upon current assessments? **[3 marks]**

   ii. Estimate the value of these rights for sale to another network. **[7 marks]**

Total [25 marks]

QUESTION THREE

a) High Veld Investments (HVI) has been increasing dividends for the past 47 years. Also the company had a high payout ratio ranging between 60%-70% up to 1992.In 1993 the payout ratio rose to 107.4% before the dividend was cut in 1994. HVI concentrated on satisfying those shareholders who preferred a high dividend payout. Evaluate High Veld's dividend policy. **[10 marks]**

b) A Japanese company called Hype Investments is considering investing into a Tractor Manufacturing Plant in Zimbabwe. The success of the project hinges on many factors, among them availability of finance (to the firm and customers), climatic conditions and the general economic environment. The initial investment required for the project is expected to be $900 000 000.

In the first year of the project, there is a 20% chance that the project will generate $1 200 000 000, 60% chance that it will generate $450 000 000 and 20% chance that cash flows will be negative $600 000 000.If the project generates $1.2 billion in the first years, then there is a 0.1, 0.6 and 0.3 chance that cash flows will be $2.2 billion, 1.2 billion and $900 million respectively in the following year. In a worst case scenario in the first year, the project will have a 35% of generating $900 million, 40% of generating $600 million and 25% of generating $300 million in the second year. If the economy performs averagely in the year after the initial investment, it will generate cash flows amounting to $500, $100 and $700 million in the successive year. The possibility of generating these cash flows is given by 10%, 50% and 40% respectively.

The CFO of Hype Investments believes that the value of the project emanates from the uncertainty surrounding the future cash flows. In the event that the project does not succeed, the company can abandon the project by finding suitable buyers. However the projects manager is of the view that the operating environment is too volatile such that investing in such a project is value destroying for shareholders.

She highlights that waiting for a couple of years before embarking on the project might be value adding since the economy is expected to stabilize while at the same time new information comes in.

You are appointed as project consultant to offer advice to Hype Investment management on the best decision to take. Assume a 10% discount rate.

i. Advise the firm on the best course of action to take considering the Zimbabwean economic environment. **[10 marks]**

ii. Determine the projects standard deviation and clearly explain the implication of that value. **[5 marks]**

Total [25 marks]

QUESTION FOUR

a) Using the Financial Strategy Matrix, clearly explain strategies that can to be adopted by a company with a growth in sales that is less than the sustainable growth rate while its Economic Value Added is less than zero. **[10 marks]**

b) Evaluate the applicability of Walter's Dividend Relevance Theory to firms operating in Zimbabwe's telecommunications sector. **[6 marks]**

c) Explain the factors responsible for the variance in optimal capital structures for companies operating in developing and developed markets. **[9 marks]**

QUESTION FIVE

a) Oasis Beverages is an entity operating in a declining industry that is characterised by overcapacity and eroding profit margins. The entity plans to merge with other companies in order to revive their fortunes. Advice the entity on the type of mergers they should pursue and clearly justify the appropriateness of the merger type. **[9 marks]**

b) Explain three factors that influence the method of payment in a merger transaction. **[6 marks]**

c) A company called Namnet Investments has made an offer for Real Time Trading Company that consists of the purchase of 2 million shares at $9 per share. The value of Real Time stock before the bid was made public was $10 per share. Namnet stock is trading at $30 per share, and there are 12 million shares outstanding. Namnet estimates that it is likely to reduce costs through economies of scale with this merger of $2 million per year in present value terms, forever. The appropriate discount rate for these gains is 10%.

d) What are the synergistic gains from this merger? **[4 marks]**

e) What parties, if any, share in these gains? **[3 marks]**

f) What is the estimated value of Namnet post-merger? **[3 marks]**

Total [25 marks]

END OF EXAMINATION PAPER