Name:

Enrolment No:

UPES

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2019

Course: MBA- (O&G) / Energy Trading (Financial Management) **Semester: II**
Course Code: FINC 7013/ FINC 7014
Programme: MBA OIL & GAS / ENERGY TRADING
Time: 03 Hours **Max. Marks: 100**
Instructions: **ATTEMP ALL QUESTIONS**

SECTION A (Short Theory) **40 Marks**

		Marks	CO
Q1.	Differentiate between the Profit Maximization and Wealth Maximization Objective of Financial Management?	**10**	**CO1**
Q2.	What are the important determinants of Working Capital Management?	**10**	**CO1**
Q3.	What can one calculate with the help of ‘Rule of 72’ and ‘Rule of 69’? Explain with Illustration.	**10**	**CO2**
Q4.	Mr. S. Presently having age of 26. His monthly expenditure is Rs.20000. He wants to get retire at the age of 62. The current and expected rate of inflation is 6%. Calculate roughly at the age of 62 What would be his monthly Expenditure.	**10**	**CO1**

SECTION B (Long Numerical) **30 Marks**

		Marks	CO
Q 5	PQR & Co. has the following capital structure as on Dec. 31, 2011. (see table below) The equity shares of the company are quoted at Rs. 102 and the company is expected to declare a dividend of Rs. 9 per share for the next year. The company has registered a dividend growth rate of 5% which is expected to be maintained. (i) Assuming the tax rate applicable to the company at 30%, calculate the WACC. (ii) Assuming that the company can raise additional term loan at 12% for Rs. 500000 to finance its expansion, calculate the revised WACC. The company’s expectation is that the business risk associated with new financing may bring down the market price from Rs. 102 to Rs. 96 per share.	**10**	**CO3**

Equity Share Capital (5000 shares of rs. 100 each)	500000
9% Preference Shares	200000
10% debenture	300000

Q 6	The board of directors of Nanak Engineering Company Private Ltd requested you to prepare a statement showing the working capital requirements for a level of activity at 1,56,000 units of production. The following information is available for your calculation: Per unit cost (A) Raw material — Rs 90 Direct labour — 40 Overheads — 75 Total — 205 Profit — 60 Selling price per unit — 265 --- ------------------------- (B) (1) Raw materials are in stock, on average one month. (2) Materials are in progress, on average 2 weeks. (3) Finished goods are in stock, on average one month. (4) Credit allowed by suppliers, one month. (5) Time lag in payment from debtors, 2 month. (6) Average time-Lag in payment of wages, 1.5 weeks. (7) Average time-lag in payment of overheads is one month. Twenty percent of the output is sold against cash. Cash in hand at bank is expected to be Rs 60,000. It is to be assumed that production is carried on evenly throughout the year; wages and overheads accrue similarly and a time period of 4 weeks is equivalent to a month.	**10**	**CO2,3**
Q 7	The following is the Income Statement of XYZ Ltd. For the Year 2011. (In Lakhs) Sales — 50 Less: Variable cost — 10 Less: Fixed Cost — 20 EBIT — 20 Less: Interest — 5 Profit before Tax — 15 Less: Tax @40% — 6 Profit after Tax — 9 Less: Preference dividend — 1 Profit for equity shareholders — 8 The company has 4 lakhs equity shares issued to the shareholders. Find out the degree of operating, financial and combined leverage. What would be the EPS if the Sales level increases by 10%?	**10**	**CO2**

SECTION-C (Long Numerical)

		Marks	CO
Q8.	The initial investment outlay for a capital investment project consists of Rs. 100 lakhs for plant And machinery and Rs. 40 lakhs for working capital. Other details are summarized below : Output 1 lakh units of output per year for years 1 to 5 Selling priceRs. 120 per unit of output Variable costRs. 60 per unit of output Fixed overheads (excluding depreciation)Rs. 15 lakhs per year for years 1 to 5 Rate of depreciation on plant and machinery25% on WDV method Salvage value of plant and machinery Equal to the WDV at the end of year 5 Applicable tax rate40% Time horizon5 years Post-tax cut off rate12%	15	CO4,5

Year	1	2	3	4	5
P.V. Factor	**0.892857**	**0.797194**	**0.71178**	**0.635518**	**0.567427**

Required :

Indicate the financial viability of the project by calculating the net present value

Q9. Dubai Petro Corp. Provides you the following figures :

Profit	**Rs. 3,00,000**
-Interest on debenture @ 12%	**- 60,000**
	Rs. 2,40,000
Income tax @ 50%	**-1,20,000**
	Rs. 1,20,000
Number of Equity shares (Rs. 10 each)	**Rs. 40,000**
EPS (Rs.)	**3**
Ruling price in market (Rs.)	**30**
PE Ratio(price/EPS)	**10**

The company has undistributed reserves of Rs. 6,00,000. The company needs Rs. 2,00,000 for expansion. This amount will earn at the same rate as funds already employed.

You are informed that a debt equity ratio i.e. Debt/(Debt+Equity) higher than 35% will push the PE ratio down to 8 and raise the interest rate on additional amount borrowed to 14%.

You are required to ascertain the probable price of share :

(i) If the additional funds are raised as debts; and

(ii) If the amount is raised by issuing equity shares.

Marks: **15** CO: **CO4,5**

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Programme: MBA OIL & GAS / ENERGY TRADING
Time: 03 Hours **Max. Marks: 100**
Instructions: **ATTEMP ALL QUESTIONS**

SECTION A (Short Theory) **40 Marks**

		Marks	**CO**
Q1.	What is the relevance of Time value of money in financial decision-making?	**10**	**CO1**
Q2.	What are the important determinants of Working Capital Management?	**10**	**CO1**
Q3.	What is meant by Leverage? What are its different types? What type of risk is associated with each type of leverage. (Explain with illustration)	**10**	**CO2**
Q4.	Machine A costs Rs. 1, 00,000 payable immediately. Machine B costs Rs. 1, 20,000 half payable immediately and half payable in one year's time. The cash receipts expected are as follows: Year (at end) / Machine A / Machine B: 1 / Rs. 20,000 / - 2 / 60,000 / Rs. 60,000 3 / 40,000 / 60,000 4 / 30,000 / 80,000 5 / 20,000 / - At 7% opportunity cost, which machine should be selected on the basis of NPV?	**10**	**CO1**

SECTION B (Long Numerical) **30 Marks**

		Marks	**CO**
Q5	PQR & Co. has the following capital structure as on Dec. 31, 2011. Equity Share Capital (5000 shares of rs. 100 each) / 500000 9% Preference Shares / 200000 10% debenture / 300000	**10**	**CO3**

The equity shares of the company are quoted at Rs. 102 and the company is expected to declare a dividend of Rs. 9 per share for the next year. The company has registered a dividend growth rate of 5% which is expected to be maintained.

(i) Assuming the tax rate applicable to the company at 30%, calculate the WACC.

(ii) Assuming that the company can raise additional term loan at 12% for Rs. 500000 to finance its expansion, calculate the revised WACC. The company's expectation is that the business risk associated with new financing may bring down the market price from Rs. 102 to Rs. 96 per share.

Q6 X. Co.Ltd is considering three different plans to fiannce its total project costs of Rs. 100 lacs. These are:

	Plan A	**Plan B**	**Plan C**
Equity(Rs. 100 per share)	50	34	25
8% debentures	50	66	75
TOTAL	100	100	100

Sales for the first three years of operation are estimated at Rs.100 lacs, Rs. 125 lacs and Rs. 150 lacs and a 10% profit before interest and taxes is forecast to be achieved, Corporate taxation to be taken at 50%.
Compute earnings per share in each of alternative plans of financing for three years and evaluate the proposals.

10 **CO2,3**

Q7 The following is the Income Statement of XYZ Ltd. For the Year 2011.

(In Lakhs)

Sales	50
Less: Variable cost	10
Less: Fixed Cost	20
EBIT	20
Less: Interest	5
Profit before Tax	15
Less: Tax @40%	6
Profit after Tax	9
Less: Preference dividend	1
Profit for equity shareholders	8

The company has 4 lakhs equity shares issued to the shareholders. Find out the degree of operating, financial and combined leverage. What would be the EPS if the Sales level increases by 10%?

10 **CO2**

<table>
<tr><td colspan="4">SECTION-C (Long Numerical)</td></tr>
<tr><td></td><td></td><td>Marks</td><td>CO</td></tr>
<tr><td>Q8.</td><td>The initial investment outlay for a capital investment project consists of Rs. 100 lakhs for plant And machinery and Rs. 40 lakhs for working capital. Other details are summarized below :
Output 1 lakh units of output per year for years 1 to 5
Selling priceRs. 120 per unit of output
Variable costRs. 60 per unit of output
Fixed overheads (excluding depreciation)Rs. 15 lakhs per year for years 1 to 5
Rate of depreciation on plant and machinery25% on WDV method
Salvage value of plant and machinery Equal to the WDV at the end of year 5
Applicable tax rate40%
Time horizon5 years
Post-tax cut off rate12%

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Required :
Indicate the financial viability of the project by calculating the net present value</td><td>15</td><td>CO4,5</td></tr>
<tr><td>Q9.</td><td>The following data are available for the Broadway and Midway companies:
<table>
<tr><td></td><td>Broadway co.</td><td>Midway co.</td></tr>
<tr><td>Sales volume</td><td>10000 units</td><td>10000 units</td></tr>
<tr><td>Selling price per unit of output</td><td>Rs.200</td><td>Rs.200</td></tr>
<tr><td>Variable cost per unit of output</td><td>Rs.120</td><td>Rs.150</td></tr>
<tr><td>Fixed operating cost per unit of output</td><td>Rs.60</td><td>Rs.30</td></tr>
<tr><td>Equity</td><td>Rs.300000</td><td>Rs.600000</td></tr>
<tr><td>Preference shares</td><td>Rs.100000</td><td>--</td></tr>
<tr><td>Debt</td><td>Rs.600000</td><td>Rs.400000</td></tr>
<tr><td>Interest rate on debt</td><td>16.25%</td><td>15%</td></tr>
<tr><td>Dividend rate on preference share</td><td>13%</td><td>--</td></tr>
<tr><td>Tax rate</td><td>60%</td><td>60%</td></tr>
</table>

Required:</td><td>15</td><td>CO4,5</td></tr>
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	1. Calculate the Return on Equity, Degree of Operating Leverage, Degree of Financial Leverage, Degree of Combined leverage 2. As a financial analyst which of two companies would you describe as more risky?		