Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

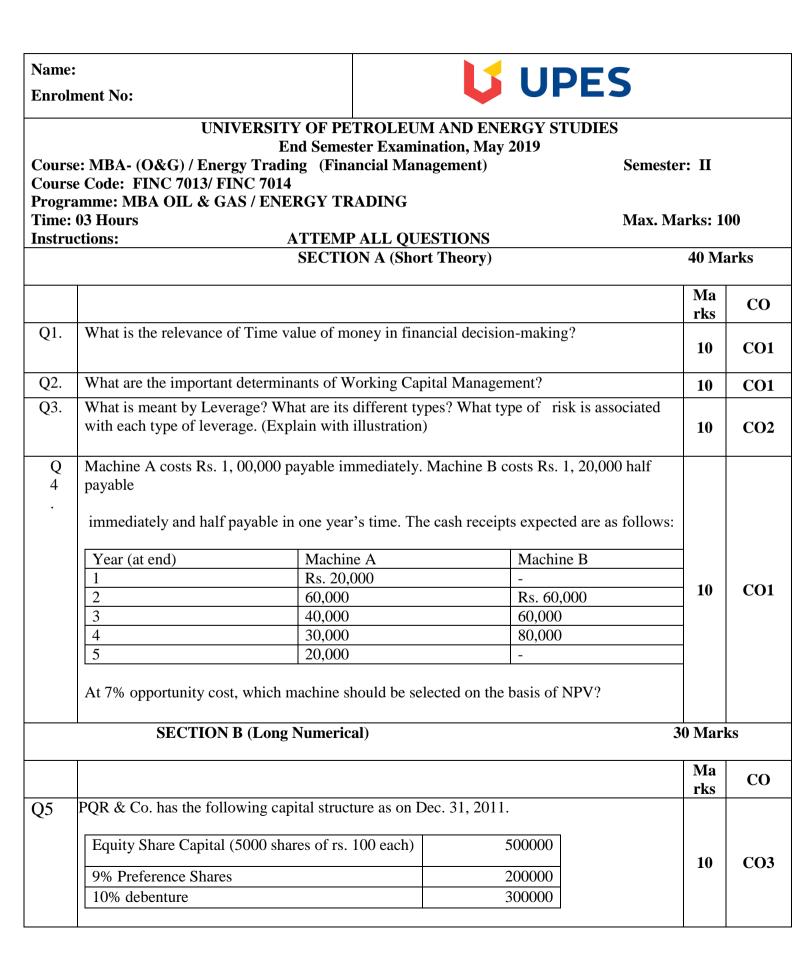
End Semester Examination, May 2019

Course: MBA- (O&G) / Energy Trading (Financial Management) Semester: II

Tim	gramme: MBA OIL & GAS / ENERGY TRADING ne: 03 Hours ructions: ATTEMP ALL Q		Max. Marks: 100		
	SECTION A ((Short Theory)	40 Ma	40 Marks	
			M ar ks	CO	
Q1	Differentiate between the Profit Maximization and W Management?	Vealth Maximization Objective	ve of Financial 10	CO	
Q2	What are the important determinants of Working Cap	pital Management?	10	CO	
Q3	What can one calculate with the help of 'Rule of 72' Illustration.	and 'Rule of 69'? Explain w	ith 10	CO	
Q4	Mr. S. Presently having age of 26. His monthly expended retire at the age of 62. The current and expected roughly at the age of 62 What would be his monthly	rate of inflation is 6%. Calcul		co	
	SECTION B (Long Numerical)		30 Mark	S	
			M ar ks	CC	
Q	PQR & Co. has the following capital structure as on D	Dec. 31, 2011.			
5	Equity Share Capital (5000 shares of rs. 100 each)	500000			
	9% Preference Shares	200000			
	The equity shares of the company are quoted at Rs. 1 dividend of Rs. 9 per share for the next year. The com 5% which is expected to be maintained. (i) Assuming the tax rate applicable to the company (ii) Assuming that the company can raise additional its expansion, calculate the revised WACC. The risk associated with new financing may bring definition.	pany has registered a divider y at 30%, calculate the WAC I term loan at 12% for Rs. 50 e company's expectation is	C. 00000 to finance that the business	CO	

	The following information is available for your calculation: Per unit cost					
(A)	Raw material	Rs 90				
	Direct labour	40				
	Overheads	75				
T	otal	205				
	rofit	60				
	ling price per unit	265				
(B)	. , . ,					
	(2) Materials are in progress, on average 2 weeks.					
		e in stock, on average one month.				
		suppliers, one month.				
		ent from debtors, 2 month.				
		in payment of wages, 1.5 weeks.				
т		in payment of overheads is one month.				
1		tput is sold against cash. Cash in hand at bank is expected to be Rs				
60	OOO It is to be aggumed					
		I that production is carried on evenly throughout the year; wages and				
ov	erheads accrue similarly	I that production is carried on evenly throughout the year; wages and a nd a time period of 4 weeks is equivalent to a month.				
ov	erheads accrue similarly	If that production is carried on evenly throughout the year; wages and a nad a time period of 4 weeks is equivalent to a month. Statement of XYZ Ltd. For the Year 2011.				
The f	erheads accrue similarly following is the Income	I that production is carried on evenly throughout the year; wages and a a time period of 4 weeks is equivalent to a month. Statement of XYZ Ltd. For the Year 2011. (In Lakhs)				
The f	rerheads accrue similarly following is the Income ses	I that production is carried on evenly throughout the year; wages and a nd a time period of 4 weeks is equivalent to a month. Statement of XYZ Ltd. For the Year 2011. (In Lakhs) 50				
The f	following is the Income ses s: Variable cost	I that production is carried on evenly throughout the year; wages and a a time period of 4 weeks is equivalent to a month. Statement of XYZ Ltd. For the Year 2011. (In Lakhs) 50 10				
The f	following is the Income Ses s: Variable cost s: Fixed Cost	If that production is carried on evenly throughout the year; wages and a and a time period of 4 weeks is equivalent to a month. Statement of XYZ Ltd. For the Year 2011. (In Lakhs) 50 10 20				
The f	following is the Income Ses s: Variable cost s: Fixed Cost	Statement of XYZ Ltd. For the Year 2011. (In Lakhs) 50 10 20 20				
The f	following is the Income Ses s: Variable cost s: Fixed Cost T s: Interest	I that production is carried on evenly throughout the year; wages and a a time period of 4 weeks is equivalent to a month. Statement of XYZ Ltd. For the Year 2011. (In Lakhs) 50 10 20 20 5				
The f	following is the Income Ses s: Variable cost s: Fixed Cost T s: Interest fit before Tax	Statement of XYZ Ltd. For the Year 2011. (In Lakhs) 50 10 20 5 15				
The f	following is the Income S es s: Variable cost s: Fixed Cost T s: Interest fit before Tax s: Tax @40%	Statement of XYZ Ltd. For the Year 2011. (In Lakhs) 50 10 20 20 5 15 6	10	CO2		
The f	following is the Income Ses s: Variable cost s: Fixed Cost T s: Interest fit before Tax s: Tax @40% fit after Tax	I that production is carried on evenly throughout the year; wages and a nd a time period of 4 weeks is equivalent to a month. Statement of XYZ Ltd. For the Year 2011. (In Lakhs) 50 10 20 20 5 15 6 9	10	CO2		
The f	following is the Income S es s: Variable cost s: Fixed Cost T s: Interest fit before Tax s: Tax @40%	Statement of XYZ Ltd. For the Year 2011. (In Lakhs) 50 10 20 20 5 15 6	10	CO2		

						M ar ks	СО
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	1	
				calculating the	e net present value		
Dubai Petro Corj		i the following	g figures :	D 24	20.000	_	
T .		O 100/					
-Interes	t on debentur	e @ 12%			,		
T		00/			•		
In	come tax @ 5	U%		,	/		
Number of		(NS. 10 cacil)	,		,		
Ruling	` ′	ket (Rs.)		-	-		
	, .	` '					
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.					15	CO4,5	
	lakhs for pare summa Output Selling p Variable Fixed ov Rate of o Salvage Applicat Time hor Post-tax Year P.V. Factor Required: Indicate Dubai Petro Corp Interes In Number of Ruling PE The company ha expansion. This a You are informed PE ratio down to You are required (i) If the	lakhs for plant And ma are summarized below Output 1 lakh units of Selling priceRs. 120 p Variable costRs. 60 pc Fixed overheads (excl Rate of depreciation of Salvage value of plant Applicable tax rate40c Time horizon5 years Post-tax cut off rate12 Year 1 P.V. Factor 0.892857 Required: Indicate the financial of Income tax @ 5 Number of Equity shares EPS (Rs.) Ruling price in mark PE Ratio(price/I The company has undistributed expansion. This amount will eat You are informed that a debt expension. This amount will eat You are required to ascertain the (i) If the additional functions	lakhs for plant And machinery and are summarized below: Output I lakh units of output per y Selling priceRs. 120 per unit of out Variable costRs. 60 per unit of out Fixed overheads (excluding depred Rate of depreciation on plant and r Salvage value of plant and machine Applicable tax rate40% Time horizon5 years Post-tax cut off rate12% Year 1 2 P.V. Factor 0.892857 0.797194 Required: Indicate the financial viability of the Indicate	lakhs for plant And machinery and Rs. 40 lakhs fare summarized below: Output 1 lakh units of output per year for years Selling priceRs. 120 per unit of output Variable costRs. 60 per unit of output Fixed overheads (excluding depreciation)Rs. 15 Rate of depreciation on plant and machinery259 Salvage value of plant and machinery Equal to the Applicable tax rate40% Time horizon5 years Post-tax cut off rate12% Year 1 2 3 P.V. Factor 0.892857 0.797194 0.71178 Required: Indicate the financial viability of the project by Dubai Petro Corp. Provides you the following figures: Profit -Interest on debenture @ 12% Income tax @ 50% Number of Equity shares (Rs. 10 each) EPS (Rs.) Ruling price in market (Rs.) PE Ratio(price/EPS) The company has undistributed reserves of Rs. 6,00,000. To expansion. This amount will earn at the same rate as funds and the same rate and additional and the same rate and additional and the same required to ascertain the probable price of share: (i) If the additional funds are raised as debts; and	lakhs for plant And machinery and Rs. 40 lakhs for working ca are summarized below: Output I lakh units of output per year for years I 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 Rate of depreciation on plant and machinery25% on WDV me Salvage value of plant and machinery Equal to the WDV at th Applicable tax rate40% Time horizon5 years Post-tax cut off rate12% Year	lakhs for plant. And machinery and Rs. 40 lakhs for working capital. Other details are summarized below: Output I 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% 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 Dubai Petro Corp. Provides you the following figures: Profit Rs. 3,00,000 Income tax @ 50% - 60,000 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	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% Year



to finance its expansion is that the business price from Rs. 10. Co.Ltd is considering three. These are: [uity(Rs. 100 per share)] 8% debentures TOTAL s for the first three years lacs and a 10% profit bettion to be taken at 50%. Inpute earnings per share uate the proposals.	ee different plans to fiar Plan A 50 50 100 s of operation are estimate fore interest and taxes	Plan B 34 66 100 ated at Rs.100 lacs, Rs. is forecast to be achieved	pany's expectation g down the market ests of Rs. 100 Plan C 25 75 100 125 lacs and Rs. ed, Corporate	10	CO2,3
is that the business price from Rs. 10 Co.Ltd is considering through These are: [uity(Rs. 100 per share)] 8% debentures TOTAL s for the first three years lacs and a 10% profit bettion to be taken at 50%. Inpute earnings per share uate the proposals.	Plan A 50 50 100 Sof operation are estimate of one interest and taxes	Plan B 34 66 100 ated at Rs.100 lacs, Rs. is forecast to be achieved	g down the market ests of Rs. 100 Plan C 25 75 100 125 lacs and Rs. ed, Corporate	10	CO2,3
co.Ltd is considering three. These are: uity(Rs. 100 per share) 8% debentures TOTAL s for the first three years lacs and a 10% profit bettion to be taken at 50%. Inpute earnings per share uate the proposals.	Plan A 50 50 100 s of operation are estimate of one interest and taxes	Plan B 34 66 100 ated at Rs.100 lacs, Rs. is forecast to be achieved	Plan C 25 75 100 125 lacs and Rs. ed, Corporate	10	CO2,3
Co.Ltd is considering through These are: [uity(Rs. 100 per share)] 8% debentures TOTAL s for the first three years lacs and a 10% profit bettion to be taken at 50%. Inpute earnings per share uate the proposals.	Plan A 50 50 100 s of operation are estimate of ore interest and taxes in the state of the s	Plan B 34 66 100 ated at Rs.100 lacs, Rs. is forecast to be achieved	Plan C 25 75 100 125 lacs and Rs. ed, Corporate	10	CO2,3
These are: auity(Rs. 100 per share) 8% debentures TOTAL s for the first three years lacs and a 10% profit be tion to be taken at 50%. Inpute earnings per share uate the proposals.	Plan A 50 50 100 s of operation are estimate of ore interest and taxes	Plan B 34 66 100 ated at Rs.100 lacs, Rs. is forecast to be achieved	Plan C 25 75 100 125 lacs and Rs. ed, Corporate	10	CO2,3
These are: auity(Rs. 100 per share) 8% debentures TOTAL s for the first three years lacs and a 10% profit be tion to be taken at 50%. Inpute earnings per share uate the proposals.	Plan A 50 50 100 s of operation are estimate of ore interest and taxes	Plan B 34 66 100 ated at Rs.100 lacs, Rs. is forecast to be achieved	Plan C 25 75 100 125 lacs and Rs. ed, Corporate	10	CO2,3
guity(Rs. 100 per share) 8% debentures TOTAL s for the first three years lacs and a 10% profit be tion to be taken at 50%. Inpute earnings per share uate the proposals.	50 50 100 s of operation are estimate of ore interest and taxes	34 66 100 ated at Rs.100 lacs, Rs. is forecast to be achieve	25 75 100 125 lacs and Rs. ed, Corporate	10	CO2,3
8% debentures TOTAL s for the first three years lacs and a 10% profit be tion to be taken at 50%. pute earnings per share uate the proposals.	50 50 100 s of operation are estimate of ore interest and taxes	34 66 100 ated at Rs.100 lacs, Rs. is forecast to be achieve	25 75 100 125 lacs and Rs. ed, Corporate	10	CO2,3
8% debentures TOTAL s for the first three years lacs and a 10% profit be tion to be taken at 50%. pute earnings per share uate the proposals.	50 100 s of operation are estimated and taxes	ated at Rs.100 lacs, Rs. is forecast to be achieved	75 100 125 lacs and Rs. ed, Corporate	10	CO2,3
TOTAL s for the first three years lacs and a 10% profit be tion to be taken at 50%. npute earnings per share uate the proposals.	s of operation are estimated and taxes	ated at Rs.100 lacs, Rs. is forecast to be achieved	100 125 lacs and Rs. ed, Corporate	10	CO2,3
s for the first three years lacs and a 10% profit be tion to be taken at 50%. npute earnings per share uate the proposals.	s of operation are estimated and taxes	ated at Rs.100 lacs, Rs. is forecast to be achieve	125 lacs and Rs. ed, Corporate	10	CO2,3
lacs and a 10% profit be tion to be taken at 50%. npute earnings per share uate the proposals.	efore interest and taxes	is forecast to be achieve	ed, Corporate		~~·
tion to be taken at 50%. npute earnings per share uate the proposals.					
npute earnings per share uate the proposals.	in each of alternative p	lans of financing for th	roo voore and		
uate the proposals.	in each of afternative p	lans of financing for un		l	
• •			iee years and		
following is the Income	Statement of XYZ Ltd	For the Year 2011.			
	(In Lakhs)				
es	50				
ss: Variable cost	10				
ss: Fixed Cost	20				
<u>IT</u>	20				
ss: Interest					
				10	CO2
	9				
	1 0				
_ ·	8				
renoiders					
company has A lakhs ea	uity chares issued to the	e shareholders. Find ou	t the degree of		
COMBUNATIVE HOS THORNS (A)			t the degree of	ı	
	bined leverage What v	yould be the EPS if the	Sales level		
rating, financial and com	bined leverage. What v	would be the EPS if the	Sales level		
	bined leverage. What v	vould be the EPS if the	Sales level		
5	ss: Fixed Cost IT ss: Interest fit before Tax ss: Tax @40% fit after Tax ss: Preference dividend fit for equity reholders	ss: Fixed Cost 20 IT 20 ss: Interest 5 fit before Tax 15 ss: Tax @40% 6 fit after Tax 9 ss: Preference dividend 1 fit for equity 8 reholders	ss: Fixed Cost TT 20 ss: Interest 5 fit before Tax 15 ss: Tax @40% 6 fit after Tax 9 ss: Preference dividend 1 fit for equity reholders	s: Fixed Cost 20 IT 20 s: Interest 5 fit before Tax 15 s: Tax @40% 6 fit after Tax 9 s: Preference dividend 1 fit for equity 8	ss: Fixed Cost 20 IT 20 ss: Interest 5 fit before Tax 15 ss: Tax @40% 6 fit after Tax 9 ss: Preference dividend 1 fit for equity 8 reholders

			SECTION	-C (Long I	Numerical)			
							Ma rks	СО
Q8.	lakhs for p details are Output Selling p Variable Fixed ov Rate of c Salvage Applicab Time hor Post-tax Year P.V. Factor Required:	lant And mac summarized lakh units of criceRs. 120 per costRs. 60 per erheads (excludepreciation or value of plant ple tax rate40% rizon5 years cut off rate129 0.892857	chinery and below: output per yer unit of out unit of out iding depred a plant and machines.	Rs. 40 laklyear for ye tput put ciation)Rs. machinery Equal 3 0.71178	ns for working ca	ar for years 1 to 5 ethod ne end of year 5	15	CO4,5
Q9.	Sales volume Selling price per Variable cost per Fixed operating of Equity Preference shares Debt Interest rate on de Dividend rate on Tax rate Required:	unit of output unit of output cost per unit of o	Broad 1000 Rs.20 Rs.12 output Rs.60 Rs.30 Rs.10 Rs.60 16.25	way co. 0 units 00 00 00 00 00 00 00 00 00 00	Midway companie Midway co. 10000 units Rs.200 Rs.150 Rs.30 Rs.600000 Rs.400000 15% 60%	es:	15	CO4,5

1.0	Calculate the Return on Equity, Degree of Operating Leverage, Degree of Financial	
L	everage, Degree of Combined leverage	
2. A	s a financial analyst which of two companies would you describe as more risky?	