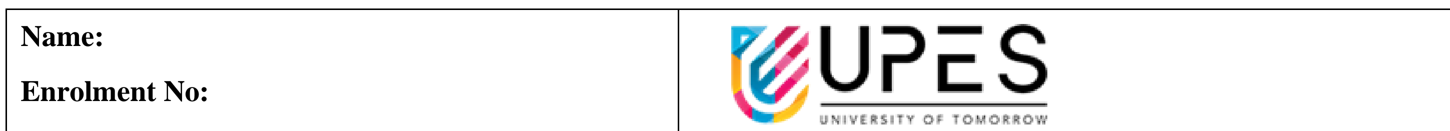
Name: Enrolment No:	

UPES
School of Business
End Semester Examination, December 2024

Course: MBA OG | **Semester: III**
Programme: Financing Petroleum Sector Projects | **Course Code: FINC 8015**
Time: 03 hrs. | **Max. Marks: 100**
Instructions: Scientific Calculator is allowed

SECTION A
10Qx2M=20Marks

S. No.	**Multiple Choice Questions**	**Marks**	**CO**
Q 1	………………………is the most important aspect of derivatives and also their basic economic purpose a. Risk b. Hedging c. Margin d. Profit	**2**	**1**
Q 2	…………………………… is an iterative process to identify, assess, reduce, accept, and control risks in a systematic, proactive, comprehensive and cost effective manner, taking into account the business, costs, technical, quality and schedule programmatic constraints. a. Cost b. Risk Management c. Decision Tree a. CEC	**2**	**1**
	Differentiate the Following:		
Q 3	Acquisition Cost and Exploration Cost	**2**	**1**
Q4	Option and Futures Contract	**2**	**1**
	Fill in the Blanks		
Q 5	…………………………are reserves that are expected to be recovered from existing wells where a relatively major expenditure is required for recompletion.	**2**	**1**
Q 6	Financial services can also be called …………………………………………	**2**	**1**
Q 7	Costs incurred in acquiring property, i.e., costs incurred in acquiring the **rights** to explore, drill, and produce oil and natural gas. Domestically, these rights are normally acquired by obtaining an oil, gas, and mineral lease is called as …………………..	**2**	**1**
Q 8	Coefficient of Variation is ……………………………………………	**2**	**1**
Q 9	DD & A assess depletion on unamortized cost as ……………	**2**	**1**
Q 10	FMEA is defined as……………………………………………………	**2**	**1**

SECTION B 4Qx5M= 20 Marks			
Q 11	How Risk Management process can be executed in oil and gas projects?	**5**	**2**
Q 12	Discuss which costs are Expense or which items are capital as per Successful Effort Method and Full Cost Method: Star oil Company began operations on March 3, 1995, with the acquisition of a lease in Texas. During the first year, the following costs were incurred, DD&A (depreciation, depletion, and amortization) taken, and the following revenue was earned. G&G costs — $ 30,000 Acquisition costs — 50,000 Exploratory dry holes — 1,200,000 Exploratory wells, successful — 400,000 Development costs — 200,000 Production costs — 25,000 DD & A expense — 40,000 (SE) 90,000 (FC) Revenue — 100,000	**5**	**2**
Q 13	How Financial system works for financing Oil and Gas Projects?	**5**	**3**
Q 14	What makes risk important in the selection of projects? Explain briefly the various methods of evaluating risky projects?	**5**	**3**

SECTION-C
3Qx10M=30 Marks

Q 15

You are undergoing contract to buy 900 bbl of crude oil . The current price is $ 69.56 per barrel from KL Petroleum Limited on 3rd Nov 2024. Initial Margin is 10% and Maintenance Margin is 6%. The expiry date of contract is 19th Nov 2024. The client has hired you as his financial consultant to let him know about the following:

1. MTM position

2. Margin money which he shall pay or receive to the bank on account of such MTM.

Date	Market Rate
4th Nov 2024	70.25
5th Nov 2024	80.25
7th Nov 2024	60.25
9th Nov 2024	65.25
10th Nov 2024	75.25
11th Nov 2024	85.25
12th Nov 2024	75.25
14th Nov 2024	85.50
15th Nov 2024	60.25
16th Nov 2024	65.25
17th Nov 2024	70.25
18th Nov 2024	85.35
19th Nov 2024	55.25

10 **3**

Q 16	As a works manager of the company you have submitted a proposal for manufacturing a new product called SMEE to the Managing Director. The project would cost Rs.50 million with certainty and the cash inflows (Rs. Million) for the years 1 through 3 would have the following distributions:	10	4

Year1		**Year 2**		**Year 3**	
Cash flow	**Probability**	**Cash flow**	**Probability**	**Cash flow**	**Probability**
15	.4	20	.4	25	.3
20	.3	25	.4	30	.5
30	.3	30	.2	40	.2

The Managing Director is interested in two things viz.:

a) The expected NPV if the appropriate discounting factor is 10%

b) The probability that the NPV will be less than zero.

It is assumed that cash flows are not correlated and NPV is normally distributed.

Q 17	MTC Ltd is proposing to start a new project of manufacturing electronic goods. The initial outlay would be Rs.80 lakh and would take one year to commence. The probability of success is 60%. If the project is not successful it can do intensive marketing incurring a cost of Rs.16 lakh or can terminate the project for Rs.50 lakh. If marketing is successful the probability of which is 90%, Keltron Ltd will receive annual cash inflows of Rs.30 lakh from the end of year 2 to year 5 and if the marketing is not successful, Keltron Ltd may terminate the project for Rs.40 lakh at the end of year 2. If the project is successful in the beginning, the company will generate an annual inflow of Rs.20 lakh during the first year of its operation and Rs.30 lakh p.a. for the next four years. However at the end of one year Keltron Ltd may either continue to manufacture and sell the same quality of electronic goods or incur additional expenditure of Rs.20 lakh and manufacture superior quality of electronic goods. If improvement in quality is made, it expects the following probability distribution of cash inflows per annum from year 2 to year 5:	10	4

Probability	Annual CF (Rs. lakh)
0.2	36
0.5	40
0.3	44

The cost of capital of the firm is 12%.

Based on the NPV criterion, you are required to advise MTC the strategy to be adopted

OR

	Project M (Rs.)	Project N (Rs.)	Probability
Initial Cash Outlay (t=0)	50,000	160	
Cash Flow Estimates (t=1-12)			
Worst	8,000	0	0.40
Most Likely	12,000	10,000	0.40
Best	16,000	20,000	0.20
Required Rate of Return	9%	9%	
Economic Life (in Years)	15	15	

SECTION-D
2Qx15M= 30 Marks

Q 18	The following information of Toyota Ltd is available to you for your perusal: The present book value capital structure is as follows: Rs. In Lakh Equity Capital — 400 12% Preference Capital — 100 Retained Earnings — 100 10% Debentures — 200 9% Loan — 200 **1000** Anticipated external financing opportunities are: (i) Rs 1000 per debenture redeemable at par; 10 year maturity,10% coupon rate , Premium @5. The Corporate tax rate is 30%. (ii) Rs 1000, 12% preference shares redeemable at par: 8 years maturity, Discount @ 3% ,floatation Cost is 1%. Dividend Tax is 2% (iii) Equity shares are sold at Rs.50 . Expected Dividend is Rs. 15 per share . Growth Rate is 5% You are required to determine the weighted average cost of capital	**15**	**4**
Q 19	**Read the case and answer the following questions**: Corporates and individuals will soon have one more tool for hedging their currency risks. The Reserve Bank of India (RBI) will next week come out with the contours of the exchange-traded currency options, a top official of the central bank, said. “Very soon (a week or so) you will hear from us as far as allowing exchange traded currency options in SEBI-approved platforms (exchanges),” Mr G. Jaganmohan Rao, Chief General Manger, Foreign Exchange Department, RBI, told a seminar on currency risk management, organised by the PHD Chamber of Commerce and Industry (PHDCCI) here on Saturday. He said the RBI had been in discussions with banks and industry participants over the last one year on the issue of exchange-traded currency options. “There had been 43 rounds of discussions in last one year,” Mr Rao said. Currently, currency options are allowed only as over the counter (OTC) products. The RBI Governor, Dr D. Subbarao, in the annual monetary	**15**	**4**

Capital structure table (within Q 18):

	Rs. In Lakh
Equity Capital	400
12% Preference Capital	100
Retained Earnings	100
10% Debentures	200
9% Loan	200
	1000

policy statement released in April this year, had announced that the central bank had decided to permit recognised stock exchanges introduce plain vanilla currency options on spot dollar/rupee exchange rate for residents.

In India, the level of hedging as part of currency risk management is quite low. Only 3 per cent of those with forex currency exposure have gone in for hedging their risk, it was pointed out. Meanwhile, Mr Jaganmohan Rao advised small and medium enterprises (SMEs) to limit themselves to simple products (forwards, options and swaps). "Never go for structured products," he said. On full convertibility of the rupee, Mr Rao said that full convertibility was required, but noted that the country was not yet ready for that.

"We are still to meet certain conditions of the Tarapore Committee report (on full convertibility). But RBI Governor is the best person to answer when India will have full convertibility," he said in response to a question on full convertibility. On how much the Indian industry had lost on account of the global financial crisis through the currency channel, Mr Rao said the RBI only had 'rough estimates' on how much the industry had lost. "We know about the banks and not about industry. We only have some rough estimates on how much industry lost. As and when industry had to make huge payments, we get to see the tussle between industry and bankers and thereby get some more information," he said. Already, exchange traded currency futures are permitted in two recognized stock exchanges in respect of four currency pairs.

Q1: Briefly outline the Summary of the Case**---------------------5 Marks**

Q 2: Considering the Above mentioned case, mention the Speculation with Option and Option Pricing**---------------------5 Marks**

Q 3: The organization resorts to Short Term and Long Term International Financing for their trade. It also leads to Exposure for the Multinational Corporation. What sort of Short Term and Long Term Financing can be used by the organization in International Trade with emphasis on Economic Exposure?. **---------------------5 Marks**