Name: **Enrolment No:**	

UPES

End Semester Examination, May 2023

Program: MBA Oil and Gas — **Semester : II**

Subject/Course: Petroleum Financial Management — **Max. Marks: 100**

Course Code: FINC7032 — **Duration : 3 Hours**

Instructions: Refer Financial Table for PV and FVs

SECTION A (Section A has 10 questions of 2 marks each)
10Qx2M=20Marks

Q 1		**Marks**	**CO**
(i)	For applying NPV, ______________ is considered: (a) Profit After Tax (b) Profit After Tax and Before Depreciation (c) Profit Before tax and After Depreciation (d) Profits Before Tax	**2**	**CO1**
(ii)	Find the present value of an annuity of Rs 12000 per year for 10 years if the interest rate is 9 per cent. (a) Rs 65000 (b) Rs. 77016 (c) Rs 75000 (d) Rs.73000	**2**	**CO1**
(iii)	The situation where the management has to decide the combination of profitable projects which yields highest NPV with in available funds is called: (a) Capitalizing (b) Capital Structuring (c) Capital Budgeting (d) Capital Rationing	**2**	**CO1**

(iv)	Given that the variance of the market is 113.6 and covariance between scrip and market is 86.4, the beta of the scrip is a. 0.64 b. 0.80 c. 0.58 d. 0.76	**2**	**CO1**
(v)	I/SV (1-t) is used is finding……………………………… a. Cost of Debentures b. Cost of Preference Shares c. Cost of Equity d. Both a & b above	**2**	**CO1**
(vi)	Fill in the Blanks Effective Rate of Interest is =………………………………………………	**2**	**CO1**
(vii)	Given that the variance of the market is 113.6 and covariance between scrip and market is 86.4, the beta of the scrip is a. 0.64 b. 0.80 c. 0.58 d. 0.76	**2**	**CO1**
(viii)	Limon ltd. Has EBIT of Rs.1,50,000, cost of debt 10% and the outstanding debt is Rs.4,00,000. If the overall Capitalization rate is 15%. The value of the firm as per Net Operating Income Approach would be a. Rs.15,00,000 b. Rs.6,00,000 c. Rs.10,00,000 d. Rs.6,50,000	**2**	**CO1**
(ix)	Fill in the Blanks: Market value of Equity is Rs. 20, 00,000 and the Market Value of Deb is Rs. 10,00,000 . The market value of the firm is ……………………………………	**2**	**CO1**
(x)	Fill in the Blanks: Profitability Index (PI) is calculated by………………………………	**2**	**CO1**

SECTION B 4Qx5M= 20 Marks			
Q 2	Pragati Cash Certificate of Syndicate Bank is an ideal scheme for all Classes of people. The Rate of Interest is 12% compounded quarterly. Calculate the Issue Price (PV) of a certificate of Rs. 1,00,000 to be received after 10 years.	**5**	**CO2**
Q 3	"Wealth Maximization is preferred objective function for organizations " Critically examine the statement? **OR** Conversations with leaders in the industry have led us to think about the next generation of fintech- Fintech 2.0. The prior wave of financial technology focused primarily on digital distribution of existing products and services. Keeping this is not consideration, critically analyze the key drivers of FIN TECH 2.0	**5**	**CO2**
Q 4	The beta coefficient of BT Limited is 1.2 The Company has been maintaining 9 % rate of growth in Dividends. Dividend is expected to be Rs. 9 per share. The risk free rate of Return is 17% while the return on market portfolio is 19%. Calculate the Cost of Equity using CAPM and Price per Share using Dividend Approach	**5**	**CO2**
Q 5	Calculate the Cost of Debenture for each of the following cases (Redeemable Debentures) a. Debentures are sold at par and floatation costs are 3% b. Debentures are sold at 10% premium and flotation costs are 3% c. Debentures are sold at 5 % discount and flotation costs are 3% Coupon Rate of Interest on Debentures is 10% and the face value of Debenture is Rs. 100 . Maturity period is 10 Years and Tax rate is 30%	**5**	**CO3**
SECTION-C **3Qx10M=30 Marks**			
Q 6	The two companies K and M. belong to the same risk class. They have everything in common except that the firm M Ltd has 10 % Debentures of Rs. 30 Lakh. EBIT is Rs. 7,50,000 which would be equal for both the firms. Equity Capitalization Rate is 20% for M Ltd. and 12.5% for K Ltd. Praveen owns 10 % of the equity shares of the M Ltd. What arbitrage he will resort to as per MM model **OR** How Net Income model of Capital Structure functions with reference to change in Value, Cost and Price?	**10**	**CO3**

<table>
<tr><td>Q 7</td><td>The following information of FT Ltd is available to you for your perusal:
The present book value capital structure is as follows:

Debenture (Rs 100 per Debenture) — Rs 4,50,000
Preference Shares (Rs 100 per Share) — Rs 3,50,000
Equity Shares (Rs 100 per Share) — Rs 6,50,000
Reserves and Surplus — Rs. 1, 50,000

Anticipated external financing opportunities are:
i Rs 100 per debenture redeemable at par; 5 year maturity,15% coupon rate , 2.5% flotation cost, 6% discount
ii Rs 100, 12% preference shares redeemable at par: 15 years maturity, 4% flotation cost, Premium 3%
iii Equity shares Rs 100; Rs 5 per share of flotation cost, selling price in primary market is Rs 125.
In addition, the dividend expected on the equity shares at the end of the year is Rs 8 per share; the anticipated growth rate in dividends is 8% and the company has the practice of paying all its earnings in the form of dividends. The corporate tax rate is 30%. You are required to determine the weighted average cost of capital using the book value weights

OR

How company can assess the impact of change in sales on change in EBIT and Change in EBIT on Change in EPS?</td><td>10</td><td>CO3</td></tr>
<tr><td>Q 8</td><td>Calculate the Net Present value (NPV), Payback and PI for the project X with initial outlay of Rs. 5000. The Project has following cash inflows:
<table><tr><td>Years</td><td>Cash Inflows (Rs.)

Cash Inflow after tax before Depreciation</td></tr><tr><td>1</td><td>1000</td></tr><tr><td>2</td><td>1200</td></tr><tr><td>3</td><td>1400</td></tr><tr><td>4</td><td>600</td></tr><tr><td>5</td><td>900</td></tr></table>Discounting Rate/Cost of Capital is taken to be 15%

OR

How Capital Structure can be formed in the age of FIN Tech and Digitalization?</td><td>10</td><td>CO4</td></tr>
</table>

SECTION-D

2Qx15M= 30 Marks

Q 9

While preparing a project report on behalf of a client, the following information pertaining to Client (Nexus Ltd.) is collected. You are required to estimate the net working capital. Add 10%to the computed figure to allow for contingencies.

Cost per unit in Rs.

Raw Material	150
Direct Labour	100
Overheads	50
Total Cost	300

Additional information:-

Selling Price	Rs. 450 per unit
Level of Activity	1,80,000 units per annum
Raw Material in stock	Average 5 weeks
Work in Progress	Average 4 weeks

(Assume 50% completion stage in respect of conversion costs and 100 % completion in respect of materials)

Finished goods in stock	Average 5 weeks
Credit allowed by suppliers	Average 2 weeks
Credit allowed to debtors	Average 5 weeks
Lag in payment of Wages	Average 2.5weeks
Lag (Delay) in payment of overheads	Average 1.5 weeks
Cash at bank is expected to be	Rs. 2, 00, 000
Cash at bank is expected to be	Rs. 4, 00, 000

OR

Digital currency has the potential to completely change how society thinks about money. The rise of Bitcoin, Ethereum and thousands of other cryptocurrencies that exist only in electronic form has led global central banks to research how national digital currencies might work. How Digital currency will be used and help in trade transactions ?

15 **CO4**

Q 10	**CAPITAL BUDGETING DECISION** **Maruthi Car's Dealership** Vijayawada literally translates to "The Place of Victory" and is the third largest city in Andhra Pradesh. It is located on the banks of the Krishna River and is part of the fertile Krishna delta. There are a number of canals that go through Vijayawada and irrigate the farm land throughout the delta. Vijayawada is famous for being both the largest railway junction in South India and the most important station of the South Central Railways. National highways 5 and 9 pass through the city. Sajja Srinivasa Rao, a software consultant turned entrepreneur in the U.S.A., was in India for summer vacation. He, along with his wife Vijaya, had saved enough for tough days and was contemplating investing in a new venture to ensure that their savings gave enough returns. Sajja was emotionally attached to Vijayawada and wanted to invest in the place, provided the returns were at least 20% in any project. He saw an advertisement by the Maruthi Cars offering a second dealership in the city. Maruti already had a dealer in the city, Varun Motors. In FY 2006, Varun Motors sales are expected to be 2000 cars per year. Seeing an opportunity, Vijaya called up her childhood friend, Kishore. A chartered accountant, Kishore, was working as a financial consultant. He decided to take the project with a five-year time period. Kishore made a few enquiries from local experts and made a few logical assumptions as follows: Real estate investment in a prime location was expected to cost Rs 50 Lakhs. Showroom construction and furnishing was expected to cost another Rs 25 lakhs. Working capital investment was Rs. 23 Lakhs. A 15% growth can be expected in the sales of the cars over the next five years. Of the total sales of Maruti cars, market share of the new dealership for the first five years was assumed as 5%, 9%, 14%, 19%, and 22% respectively. The average sale price of Maruti cars was assumed to be Rs. 4 Lakhs in 2006. This figure was expected to increase by 10% every year. Terminal value of the project was estimated to be at least five times the cash flows for the last year. For dealers having less than Rs 1 crore sales, Maruti had a dealership margin of 2.5%. For all other dealers Maruti gave a dealership margin of 3%. Sales and administration expenses were estimated to Rs 2 Lakhs for the first year. For future years, they were expected to grow by Rs 1 Lakh every year. Marketing expenses were decided as 1% of the total estimated sales for the first two years and then 0.5% of the total estimated sales thereon. Kishore decided to make things simple and hence he used straight line depreciation with a five-year period for all capex. Corporate Income Tax rates were taken as 37%.	**15**	**CO4**

	You are required Q 1: Analyze the project and estimate the cash flows from FY 2006 onwards. **------------5 Marks** Q 2: Calculate the payback period, profitability index, net present value, and internal rate of return for the new car dealership project. **----------5 Marks** Q 3: Should Sajja take the dealership and go ahead? **----------5 Marks**		