UGANDA MARTYRS UNIVERSITY

FACULTY OF SCIENCE

END OF MODULE EXAMINATION SEPTEMBER 2023

SECOND YEAR EXAMINATION FOR MASTER OF SCIENCE IN ICT MANAGEMENT & MASTER OF SCIENCE IN INFORMATION SYSTEMS

MICT 6203: FINANCIAL MANAGEMENT

FINAL ASSESSMENT EXAMINATION 2023

Date: 23rd September 2023 Time: 9:00 am to 12 pm Duration: 3hrs

INSTRUCTIONS:

i. **This question paper comprises two sections A and B, Section A is compulsory and carries 40 marks**
ii. **Attempt any three questions from section B**
iii. **Use of practical examples is a must**

SECTION A

Question One

Inflation continues to moderate, yet divergence among the regions increases. Under the baseline scenario, global inflation is forecast to reach 7.0% in 2023 and decline to 4.7% in 2024. Slower economic growth and tighter monetary policies, to a large extent, help to ease global inflationary pressures. Yet, divergent inflation trends in the largest economies prevail. Inflation in the Eurozone and developing economies is forecast to remain persistently higher than central banks' targets in 2024, the result of tight labour markets and commodity price fluctuations.

Inflationary pressures from the services sector remain elevated as a result of low unemployment in the largest economies and sustained wage growth. In addition, demand for services remains strong, further fuelling price increases because of human capital development. Inflationary pressures in the services sector are forecast to abate in 2024 as tighter monetary policies and weaker economic growth are forecast to restrict discretionary spending. However, long-term challenges in the labour markets will prevail and continue to put pressure on the services sectorpracticing

Countries' economies continue to struggle as they are left with no option but to continuously increase their debt burden.

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Increased commodity supply risks could add to more price volatility in the commodity markets towards the end of the year and add to supply-side inflationary pressures. For example, the expiry of the Black Sea Grain initiative has heightened the supply risks of agricultural commodities. Prolonged supply disruptions could renew inflationary pressures in the food industry. Energy supply risks also remain elevated and could lead to higher prices in Q4 2023, with energy import. During 2022, the Uganda shilling depreciated 3.8% against the US dollar. Inflation was 7.2%, driven by a 14.9% increase in food prices and a 12.7% increase in energy prices. Higher food and energy prices pressed households, especially subsistence farmers and urban dwellers. One needs to be a smart consumer in order to survive and live a moderate life*(Extracted and adapted from Source: Euromonitor International)*

Required:

a) Describe threats of financial management portrayed in the state of affairs above. **(8 mark)**
b) Based on your personal budget designate how the concept of smart consumption may be invigorated for a better economic situation**(10 marks)**
c) Discuss how financial management principles be utilised to improveeconomics, production and human resource management disciplines **(10 marks)**
d) Show how Islamic banking may be of any help in the situation above **(8 marks)**
e) As an IT expert what lessons do you draw from the above case? **(4 marks)**

Section B

Question Two

The Government of Uganda has received funding from several development partners to supplement the 2023-2024 national budget. One of the entities that have appropriated project

funds is the Office of the Prime Minister (OPM) to foresee and revamp Uganda's economic situation

a) Asa technical board member in OPM, which category of projects would you advise OPM to prioritize in the appropriation of funds to improve citizens' welfare and eradicate poverty **(10 marks)**

b) Describe the likely hindrances to the successful implementation of the above-selected OPM projects in the financial year 2023-2024. **(10 marks)**

Question Three

a) A Printing and Publishing Company in Kampala is planning to replace an old and inefficient printing machine whose useful life seems to have expired. The company would like to acquire a new machine which is available in the market in two models; namely SUPER and DELUX. Each model costs UGX 20,000,000 and has an estimated useful life of 5 years. The estimated net returns before depreciation in the five years are shown in the table below with scrap values of 500,000 and 700,000 respectively

Time (Years)	SUPER (SHS.000)	DELUX (SHS.000)
1	10,000	12,000
2	3,000	10,000
3	7,000	8,000
4	5,000	5,000
5	5,000	5,000

Required:

i) Based on the Payback period method, determine which of the two machines should be purchased and justify your decision. **(7 marks)**

ii) If the Net Present Value (NPV) technique is used what would be the decision and why? (Use a discount rate of 15 %) **(8 marks)**

iii) Calculate the profitability index **(5 marks)**

Question Four

a) Differentiate between stock replenishment and Economic order quantity as used in inventory management **(6 marks)**

b) Deliberateon what influences the stock replenishment policy of a company **(5 Marks)**

c) In your own opinion discuss seven reasons for holding inventory at the organisation **(9 marks)**

Question Five

Financial management is that specialized activity which is responsible for obtaining and effectively utilizing the funds for the efficient functioning of the business and, therefore, it includes financial planning, financial administration and financial control. Financial managers therefore ought to strategically make financial decisions that impact the firm or shareholders' value.

a) State and explain the four main decisions taken by a finance manager. **(4 marks)**

b) Identify and explain at least three long-term and three short-term sources of finance for a public limited company. **(8 marks)**

c) As a financial management expert advise the public on how to manage credit **(8 marks)**

Question Six

FromthefollowingTrialBalanceasof31stDec2022.Youaretodrafta tradingandprofitandloss accountfor theyearended31stDec2022andaBalanceSheetasatthatdate.

	Dr(Shs)	**Cr(Shs**
Loan fromMusoke		50,000
Capital		346,550
Drawings	84,200	
Cashatbank	31,150	
Cashin hand	2,950	
Debtors	123,000	
Creditors		93,700
Stock1.12022	239,100	
Motorvan	41,000	
Officeequipment	62,500	
Sales		1,309,000
Purchases	921,000	
Returnsinwards	5,500	
Returnsoutwards		3,720
Carriageinwards	3,090	
Motorexpenses	16,300	
Rent	29,700	
Telephonecharges	4,050	
Wagesandsalaries	128,100	
Insurance	4,920	
Officeexpenses	13,770	

Generalexpenses	2,840	
	1,707,670	**1,707,670**

Stockat31stDec2022wasShs274,750

BASIC FINANCIAL FORMULAE

$FVIFA_{r,n} = \frac{(1+r)^n - 1}{r}$	*Bond value,* $B_o = \sum_{t=1}^{n} \frac{I_t}{(1+k_d)^t} + \frac{B_n}{(1+k_d)^n}$, where k_d =the cost of debt, I_t= coupon interest in year t and B_n= the par value of the bond.
$PVIFA_{r,n} = \frac{1-(1+r)^{-n}}{r}$	*Yieldtomaturity,* $YTM = k_{d1} + (k_{d2} - k_{d1})\frac{B_1 - B_o}{B_1 - B_2}$
Effective Annual Interest rate, $EAR = (1+\frac{r}{n})^n - 1$	Value common stock is given by; $P_o = \frac{D_1}{k_e - g}$ OR $P_o = \frac{D_0(1+g)}{k_e - g}$
$NPV = \sum_{t=1}^{n} \frac{CF_t}{(1+k)^t} - CF_0$; where CF_t=cash flow in year t and k = the cost of capital	The profitability Index, $PI = \frac{\sum_{t=1}^{n} \frac{CF_t}{(1+k)^t}}{A_0}$
Expected Return, $ER = \sum_{i=1}^{n} P_i R_i$	Internal Rate of return, $IRR = k_1 + (k_2 - k_1)\frac{NPV_1}{NPV_1 - NPV_2}$
$\sigma = \sqrt{\sum_{i=1}^{n} \_\_\_\_}$	$ER_P = \alpha ER_A + (1-\alpha)ER_B$
Covariance of returns of A&B, $Cov_{AB} = \sum_{i=1}^{n}[P_i(R_A - ER_A)(R_B - ER_B)]$	The correlation coefficient between the returns of Investments A & B is: $r_{AB} = \frac{COV_{AB}}{\sigma_A \sigma_B}$
Weighted Average Cost of Capital, $k_o = k_D \frac{D}{D+E} + k_E \frac{E}{D+E}$	Variance of a portfolio is given by: $\sigma^2_p = \alpha^2 \sigma^2_A + (1-\alpha)^2 \sigma^2_B + 2\alpha(1-\alpha)COV_{AB}$
$Sharevalue = \frac{Total\ annual\ Dividend}{Dividend\ yield}$	$Inentory\ days = \frac{Average\ Inventory}{Cost\ of\ sales} x365$
$Receivable\ days = \frac{Average\ Receivables}{Cost\ of\ Credit\ sales} x365$	$Payaable\ days = \frac{Average\ Payaables}{Credit\ purchasess} x365$
Cost of preferred stock, $k_p = \frac{D}{Po}$	Cost of preferred stock with issue costs (x) $k_p = \frac{D}{Po - x}$
Cost of Cost common stock, $k_e = \frac{D_1}{Po} + g$; g= growth rate	Cost of loan debt $k_D = \frac{I}{Po(1-t)}$,for t =tax rate

Annuity table

Present value of £1 receivable at the end of each year for n years at discount rate r

Years (n)	Discount rate (r)									
	1.0%	2.0%	3.0%	4.0%	5.0%	6.0%	7.0%	8.0%	9.0%	10.0%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606

Years (n)	Discount rate (r)									
	11.0%	12.0%	13.0%	14.0%	15.0%	16.0%	17.0%	18.0%	19.0%	20.0%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675

Present Value table

Present value of £1 in n years at discount rate r

Years (n)	Discount rate (r)									
	1.0%	2.0%	3.0%	4.0%	5.0%	6.0%	7.0%	8.0%	9.0%	10.0%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239

Years (n)	Discount rate (r)									
	11.0%	12.0%	13.0%	14.0%	15.0%	16.0%	17.0%	18.0%	19.0%	20.0%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065