"Investing in Africa's Future"

FACULTY OF MANAGEMENT AND ADMINISTRATION

FINANCIAL MANAGEMENT 1 MAC 403

END OF FIRST SEMESTER EXAMINATIONS

NOVEMBER/DECEMBER 2016

LECTURER: N. E CHIRIMA

DURATION: THREE (3) HRS

INSTRUCTIONS

Select and answer Four Questions. Each question is worth 25 marks.

Start each question on a new page.

All working is to be shown in the Africa University Answer Booklet.

Neat and Logically presented work will be rewarded.

QUESTION ONE [25 Marks]

Define the term "ethics" [3 marks]

Why is ethics an important principle in Financial Management? [5 marks]

As a future professional Finance Manager, explain how day to day unethical behavior by individuals affects business and the society as a whole. [10 marks]

Outline the relationship between ethics and corporate governance. [7 marks]

QUESTION TWO [25 Marks]

a) Briefly explain three methods of analyzing risk in capital budgeting. [3 Marks]
b) Given below are details in respect of two machines to be acquired by Tonto Ltd.

The expected before tax operating cash flows for the machines are as follows:

Year	1	2	3	4	5
Machine A	20 500	22 860	24 210	23 410	35 100
Machine B	32 000	26 100	25 400	26 000	38 600

Other relevant details are as follows:

	Machine A	Machine B
Cost	$50 000	$88 000
Terminal Value	$5 000	$8 000
Relevant Discount Rate reflecting risk	12%	14%*

*Machine B will use new untested technology that management deems to be more risky.

Both the machines would require investment in working capital of $10 000 at the beginning of the investment period, to be recovered immediately after the end of the productive life of respective machine. Capital allowances are at a rate of 25% on a reducing balance basis and tax is at a rate of 35% payable one year in arrears.

Required:

i. Determine the discounted payback period for each machine. [4 marks]
ii. Determine the NPV for each machine. [10 marks]
iii. Advise the company on which machine to buy. [5 marks]
iv. Briefly, explain the factors you would take into account before deciding on the 'cost of capital' to apply in appraising an investment project. [3 marks]

QUESTION THREE [25 Marks]

1. The value of a company is the present value of future dividends. Is this inconsistent with the proposition that dividends are irrelevant? Explain. [10 Marks]

2. Kops Ltd has budgeted to produce 5 000 units of product Alpha. Each unit requires 20kg of material 'K' whose cost per kilogram is $7 500. Holding cost per unit per year is estimated at $320. Ordering cost per order is $10 000.

Required:

a) Determine the Economic Order Quantity and the total stock management costs. [4 Marks]
b) After how many days should an order be placed? [1 mark]
c) Compute the average dollar investment in stock. [2 marks]
d) What are the objectives of a debtor's credit policy? [3 marks]

QUESTION FOUR [25 Marks]

Mogale Ltd is considering expanding its operations to Mutare. The company wishes to make a rights issue to raise the required funding of $24 million. The company is listed on the ZSE and has currently 9 million shares in issue. The current share price on the ZSE is $10 and the subscription price will be set at $8 per share.

You are required to:

a. Compute the number of shares to be issued through the rights issue. [3 marks]
b. What is the expected ex – rights price? [5 marks]
c. What is the value of each right? [2 marks]
d. List the advantages and disadvantages of obtaining a listing on the ZSE. [10 marks]
e. List and explain five alternatives of obtaining a listing. [10 marks]

QUESTION FIVE [25 Marks]

a. To what extent may the goals of a firm differ from those of a financial manager? [5 marks]

b. From your understanding of financial accounting, what are your thoughts about the accuracy and value of financial statements, such as the Statement of Comprehensive Income and the Statement of Financial Position, for use by the financial managers? [10 marks]

c. Why are the concepts of risk and time value of money important in making investment and financing decisions? **[5 marks]**

END OF PAPER

FINANCIAL MANAGEMENT FORMULA SHEET

Lump Sum

$FV = PV\ (1 + r)^{NM}$

Ordinary Annuity

$FVA = I\ [(1 + r)^{N} - 1]/\ r$

Annuity Due

$FVA = \{I\ [(1 + r)^{N+I} - 1]/\ r\} - 1$

Lump Sum

$PV = FV\ /\ (1 + r)^{N}$

Ordinary Annuity

$PVA = I\ [(1 - (1 + r)^{N})]/\ r$

Annuity Due

$FVA = \{I\ [1 - (1 + r)^{N+I} - 1]/\ r) + 1$

Perpetuities

PV = Cash flow/ r

Instalment

Principal/ PVAIF

Co – Variance

SD/ ER

Cost of Debt

$R\ (1 - T)/\ P_0$

Cost of Debt

$[R(1 - T) + 1/M\ (FCV - P_0)]/\ [½\ (FCV + P_0)]$

Cost of Preference Shares

$D\ /\ P_0$

Cost of Equity

$(D_1\ /\ P_0) + g$

Cost of Equity

$R^f + (R^M - R^f)\beta$

PV of cash flows/ cost of investment

TABLE A.2 Present value of $1 to be received after t periods = $1/(1 + r)^t$

Number of Periods	Interest Rates								
	1%	2%	3%	4%	5%	6%	7%	8%	9%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745
16	0.8528	0.7284	0.6232	0.5339	0.4581	0.3936	0.3387	0.2919	0.2519
17	0.8444	0.7142	0.6050	0.5134	0.4363	0.3714	0.3166	0.2703	0.2311
18	0.8360	0.7002	0.5874	0.4936	0.4155	0.3503	0.2959	0.2502	0.2120
19	0.8277	0.6864	0.5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1945
20	0.8195	0.6730	0.5537	0.4564	0.3769	0.3118	0.2584	0.2145	0.1784
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637
22	0.8034	0.6468	0.5219	0.4220	0.3418	0.2775	0.2257	0.1839	0.1502
23	0.7954	0.6342	0.5067	0.4057	0.3256	0.2618	0.2109	0.1703	0.1378
24	0.7876	0.6217	0.4919	0.3901	0.3101	0.2470	0.1971	0.1577	0.1264
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160
30	0.7419	0.5521	0.4120	0.3083	0.2314	0.1741	0.1314	0.0994	0.0754
40	0.6717	0.4529	0.3066	0.2083	0.1420	0.0972	0.0668	0.0460	0.0318
50	0.6080	0.3715	0.2281	0.1407	0.0872	0.0543	0.0339	0.0213	0.0134

12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576	0.7353
0.7972	0.7695	0.7561	0.7432	0.7182	0.6944	0.6504	0.6104	0.5739	0.5407
0.7118	0.6750	0.6575	0.6407	0.6086	0.5787	0.5245	0.4768	0.4348	0.3975
0.6355	0.5921	0.5718	0.5523	0.5158	0.4823	0.4230	0.3725	0.3294	0.2923
0.5674	0.5194	0.4972	0.4761	0.4371	0.4019	0.3411	0.2910	0.2495	0.2149
0.5066	0.4556	0.4323	0.4104	0.3704	0.3349	0.2751	0.2274	0.1890	0.1580
0.4523	0.3996	0.3759	0.3538	0.3139	0.2791	0.2218	0.1776	0.1432	0.1162
0.4039	0.3506	0.3269	0.3050	0.2660	0.2326	0.1789	0.1388	0.1085	0.0854
0.3606	0.3075	0.2843	0.2630	0.2255	0.1938	0.1443	0.1084	0.0822	0.0628
0.3220	0.2697	0.2472	0.2267	0.1911	0.1615	0.1164	0.0847	0.0623	0.0462
0.2875	0.2366	0.2149	0.1954	0.1619	0.1346	0.0938	0.0662	0.0472	0.0340
0.2567	0.2076	0.1869	0.1685	0.1372	0.1122	0.0757	0.0517	0.0357	0.0250
0.2292	0.1821	0.1625	0.1452	0.1163	0.0935	0.0610	0.0404	0.0271	0.0184
0.2046	0.1597	0.1413	0.1252	0.0985	0.0779	0.0492	0.0316	0.0205	0.0135
0.1827	0.1401	0.1229	0.1079	0.0835	0.0649	0.0397	0.0247	0.0155	0.0099
0.1631	0.1229	0.1069	0.0930	0.0708	0.0541	0.0320	0.0193	0.0118	0.0073
0.1456	0.1078	0.0929	0.0802	0.0600	0.0451	0.0258	0.0150	0.0089	0.0054
0.1300	0.0946	0.0808	0.0691	0.0508	0.0376	0.0208	0.0118	0.0068	0.0039
0.1161	0.0829	0.0703	0.0596	0.0431	0.0313	0.0168	0.0092	0.0051	0.0029
0.1037	0.0728	0.0611	0.0514	0.0365	0.0261	0.0135	0.0072	0.0039	0.0021
0.0926	0.0638	0.0531	0.0443	0.0309	0.0217	0.0109	0.0056	0.0029	0.0016
0.0826	0.0560	0.0462	0.0382	0.0262	0.0181	0.0088	0.0044	0.0022	0.0012
0.0738	0.0491	0.0402	0.0329	0.0222	0.0151	0.0071	0.0034	0.0017	0.0008
0.0659	0.0431	0.0349	0.0284	0.0188	0.0126	0.0057	0.0027	0.0013	0.0006
0.0588	0.0378	0.0304	0.0245	0.0160	0.0105	0.0046	0.0021	0.0010	0.0005
0.0334	0.0196	0.0151	0.0116	0.0070	0.0042	0.0016	0.0006	0.0002	0.0001
0.0107	0.0053	0.0037	0.0026	0.0013	0.0007	0.0002	0.0001	*	*
0.0035	0.0014	0.0009	0.0006	0.0003	0.0001	*	*	*	*

s zero to four decimal places.

TABLE A.3 Present value of an annuity of $1 per period for t periods = $[1 - 1/(1 + r)^t]/r$

Number of Periods	Interest Rate								
	1%	2%	3%	4%	5%	6%	7%	8%	9%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285
21	18.8570	17.0112	15.4150	14.0292	12.8212	11.7641	10.8355	10.0168	9.2922
22	19.6604	17.6580	15.9369	14.4511	13.1630	12.0416	11.0612	10.2007	9.4424
23	20.4558	18.2922	16.4436	14.8568	13.4886	12.3034	11.2722	10.3741	9.5802
24	21.2434	18.9139	16.9355	15.2470	13.7986	12.5504	11.4693	10.5288	9.7066
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617

12%	14%	15%	16%	18%	20%	24%	28%	32%
.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0756	2.7860
.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
3.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
3.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
7.5620	6.6870	6.3125	5.9731	5.3837	4.8913	4.1212	3.5514	3.1158
7.6446	6.7429	6.3587	6.0113	5.4099	4.9094	4.1300	3.5558	3.1180
7.7184	6.7921	6.3988	6.0442	5.4321	4.9245	4.1371	3.5592	3.1197
7.7843	6.8351	6.4338	6.0726	5.4509	4.9371	4.1428	3.5619	3.1210
7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250