

UNIVERSITY OF SWAZILAND

DEPARTMENT OF ACCOUNTING

MAIN EXAMINATION PAPER 2017

- COURSE TITLE : FINANCIAL INSTITUTIONS AND MARKETS
- COURSE CODE : ACF 313/IDE AC 310/AC 310
- DEGREE/DIPLOMA : DEGREE
- TIME ALLOWED : THREE (3) HOURS
- INSTRUCTIONS :
1. TOTAL NUMBER OF QUESTIONS ON THE PAPER: FOUR (4)
 2. ATTEMPT ALL FOUR (4) QUESTIONS
 3. THE MARKS AWARDED FOR A QUESTION ARE INDICATED AT THE END OF EACH QUESTION
 4. WHERE APPLICABLE, ALL WORKINGS ARE TO BE SHOWN
 5. CALCULATIONS ARE TO BE MADE TO TWO DECIMAL PLACES OF ACCURACY, UNLESS OTHERWISE INSTRUCTED.
- SPECIAL REQUIREMENTS : PV TABLES
- NOTE : YOU ARE REMINDED THAT IN ASSESSING YOUR WORK, ACCOUNT WILL BE TAKEN OF THE ACCURACY OF LANGUAGE, THE GENERAL QUALITY OF EPRESSION, TOGETHER WITH THE LAYOUT AND PRESENTATION OF YOUR FINAL ANSWER.

THIS QUESITON PAPER SHOULD NOT BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

QUESTION 1

- a) Lizzy LTD is issuing a bond with a maturity of 12 years, after which E15 000 will be paid to the bondholder. The market interest rate is 7.25%. The bondholder receives a coupon of E1 050 every year. What is the bond selling for at present?

(3 MARKS)

- b) Gary has decided to invest E995 in a bond that will repay E1 000 after seven years. The bond makes semi-annual payments and the market interest rate is 8%. What percentage will Gary receive every six months?

(3 MARKS)

- c) You want to own an asset with a real return of 10%. Currently, the inflation rate is 3.6%. What nominal interest rate would you have to earn?

(3 MARKS)

- d) Bond A is a 5% coupon bond; Bond B is an 8% coupon bond. The market interest rate is 9% and both bonds have a maturity of 12 years. If the interest rate drops by 3%, what will be the price change of both bonds?

(3 MARKS)

- e) Frog (PTY) Ltd issued a bond five years ago at a nominal value of E10 000. The investors receive a yearly interest payment of E1,500. The market interest rate five years ago was 15.5%. The market interest rate has now decreased by 2%. The bond matures in 15 years' time.

- i) What is the maturity of the bond? (3 MARKS)
ii) Indicate the YTM (3 MARKS)
iii) Indicate the coupon rate. (3 MARKS)
iv) What is the current value of the bond? (4 MARKS)

TOTAL (25 MARKS)

QUESTION 2

- a) Nqobile Ltd arranges on 1st January with a supplier for the delivery of a consignment of goods costing US \$ 192 000. Nqobile Ltd will have to pay for the goods in six months' time, on 1st July. The company therefore arranges a forward exchange contract for its bank to sell it US \$ 192 000 six months hence. In the event the size of the consignment is reduced and on 1st July Nqobile Ltd only needs US \$ 100 000 to pay its supplier. The bank will therefore arrange to close out the forward exchange contract for the amount which Nqobile Ltd does not need.

Exchange rates between the US Dollar and Sterling are as follows:-

1 January		
Sport		\$1.5145 – 1.5155
6 months forward		0.95 – 0.85CPM
1 July		
Sport		\$1.5100 – 1.5110

REQUIRED

To compute the cost to Nqobile Ltd of the whole transaction, ignoring commission.

(10 MARKS)

- b) Foreign exchange exposures occur in three forms. Discuss these, giving examples in each case.

(15 MARKS)

TOTAL (25 MARKS)

QUESTION 3

a) Write explanatory notes on the following :-

- i. S & P 500 stock market index
- ii. Nasdaq industrial index
- iii. JSE FTSE all share index
- iv. Dow Jones industrial average index

(12 MARKS)

b) The Kamqhoza Company is a start-up company. No dividend will be paid to ordinary shareholders over the next five years as profits need to be retained to finance the company's expansion. The company will then in year 6 begin to pay a dividend of E6 per share. Analysts expect that the company's dividends will increase by 5% per year thereafter. If the required return on this share is 23%, calculate the intrinsic value of the share.

(4 MARKS)

c) JBAY Surfing company has just paid an ordinary dividend of E7.20 per share. The dividends are expected to grow at a constant rate of 6% per year indefinitely. If investors require a 12% return, what is the intrinsic price of the share? What will the price be in three years and in 15 years.

(9 MARKS)

TOTAL (25 MARKS)

QUESTION 4

Describe the principles of a futures contract, giving examples.

(25 MARKS)

TABLE A-4 Present Value Annuity Factors (at R Percent Per Period) for \$1 Received per Period for Each of N Periods

N	R =												
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	1.713	1.690	1.668
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	2.444	2.402	2.361
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	3.102	3.037	2.974
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	3.696	3.605	3.517
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	4.231	4.111	3.998
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	4.712	4.564	4.423
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	5.146	4.968	4.799
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	5.537	5.328	5.132
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	5.889	5.650	5.426
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	6.207	5.938	5.687
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	6.492	6.194	5.918
13	12.134	11.348	10.625	9.986	9.394	8.853	8.358	7.904	7.487	7.103	6.750	6.424	6.122
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.868	7.466	7.092	6.745	6.422
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606	7.191	6.811	6.462
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824	7.379	6.974	6.604
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022	7.549	7.120	6.729
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201	7.702	7.250	6.840
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365	7.839	7.366	6.938
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.818	9.129	8.514	7.963	7.469	7.025
21	18.857	17.011	15.415	14.029	12.821	11.764	10.836	10.017	9.292	8.649	8.075	7.562	7.102
22	19.660	17.658	15.937	14.451	13.163	12.042	11.061	10.201	9.442	8.772	8.176	7.645	7.170
23	20.456	18.292	16.444	14.857	13.489	12.303	11.272	10.371	9.580	8.883	8.266	7.718	7.230
24	21.243	18.914	16.936	15.247	13.799	12.550	11.469	10.529	9.707	9.085	8.348	7.784	7.283
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.823	9.077	8.422	7.843	7.330
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.427	8.694	8.055	7.496
35	29.409	24.999	21.487	18.665	16.374	14.498	12.948	11.655	10.567	9.644	8.855	8.176	7.586
40	32.835	27.355	23.115	19.793	17.159	15.046	13.332	11.925	10.757	9.779	8.951	8.244	7.634
45	36.095	29.490	24.519	20.720	17.774	15.456	13.606	12.108	10.881	9.863	9.008	8.283	7.661
50	39.196	31.424	25.730	21.482	18.256	15.762	13.801	12.233	10.962	9.915	9.042	8.304	7.675

TABLE A-4 Present Value Annuity Factors (at R Percent Per Period) for \$1 Received per Period for Each of N Periods (Continued)

N	R =												
	14%	15%	16%	18%	20%	22%	24%	25%	30%	35%	40%	45%	50%
1	0.877	0.870	0.862	0.847	0.833	0.820	0.806	0.800	0.769	0.741	0.714	0.690	0.667
2	1.647	1.626	1.605	1.566	1.528	1.492	1.457	1.440	1.361	1.289	1.224	1.165	1.111
3	2.322	2.283	2.246	2.174	2.106	2.042	1.981	1.952	1.816	1.696	1.589	1.493	1.407
4	2.914	2.855	2.798	2.690	2.589	2.494	2.404	2.362	2.166	1.997	1.849	1.720	1.605
5	3.433	3.352	3.274	3.127	2.991	2.864	2.745	2.689	2.436	2.220	2.035	1.876	1.737
6	3.889	3.784	3.685	3.498	3.326	3.167	3.020	2.951	2.643	2.385	2.168	1.983	1.824
7	4.288	4.160	4.039	3.812	3.605	3.416	3.242	3.161	2.802	2.508	2.263	2.057	1.883
8	4.639	4.487	4.344	4.078	3.837	3.619	3.421	3.329	2.925	2.598	2.331	2.109	1.922
9	4.946	4.772	4.607	4.303	4.031	3.786	3.566	3.463	3.019	2.665	2.379	2.144	1.948
10	5.216	5.019	4.833	4.494	4.192	3.923	3.682	3.571	3.092	2.715	2.414	2.168	1.965
11	5.453	5.234	5.029	4.656	4.327	4.035	3.776	3.656	3.147	2.752	2.438	2.185	1.977
12	5.660	5.421	5.197	4.793	4.439	4.127	3.851	3.725	3.190	2.779	2.456	2.196	1.985
13	5.842	5.583	5.342	4.910	4.533	4.203	3.912	3.780	3.223	2.799	2.469	2.204	1.990
14	6.002	5.724	5.468	5.008	4.611	4.265	3.962	3.824	3.249	2.814	2.478	2.210	1.993
15	6.142	5.847	5.575	5.092	4.675	4.315	4.001	3.859	3.268	2.825	2.484	2.214	1.995
16	6.265	5.954	5.668	5.162	4.730	4.357	4.033	3.887	3.283	2.834	2.489	2.216	1.997
17	6.373	6.047	5.749	5.222	4.775	4.391	4.059	3.910	3.295	2.840	2.492	2.218	1.998
18	6.467	6.128	5.818	5.273	4.812	4.419	4.080	3.928	3.304	2.844	2.494	2.219	1.999
19	6.550	6.198	5.877	5.316	4.843	4.442	4.097	3.942	3.311	2.848	2.496	2.220	1.999
20	6.623	6.259	5.929	5.353	4.870	4.460	4.110	3.954	3.316	2.850	2.497	2.221	1.999
21	6.687	6.312	5.973	5.384	4.891	4.476	4.121	3.963	3.320	2.852	2.498	2.221	2.000
22	6.743	6.359	6.011	5.410	4.909	4.488	4.130	3.970	3.323	2.853	2.498	2.222	2.000
23	6.792	6.399	6.044	5.432	4.925	4.499	4.137	3.976	3.325	2.854	2.499	2.222	2.000
24	6.835	6.434	6.073	5.451	4.937	4.507	4.143	3.981	3.327	2.855	2.499	2.222	2.000
25	6.873	6.464	6.097	5.467	4.948	4.514	4.147	3.985	3.329	2.856	2.499	2.222	2.000
30	7.003	6.566	6.177	5.517	4.979	4.534	4.160	3.995	3.332	2.857	2.500	2.222	2.000
35	7.070	6.617	6.215	5.539	4.992	4.541	4.164	3.998	3.333	2.857	2.500	2.222	2.000
40	7.105	6.642	6.233	5.548	4.997	4.544	4.166	3.999	3.333	2.857	2.500	2.222	2.000
45	7.123	6.654	6.242	5.552	4.999	4.545	4.166	4.000	3.333	2.857	2.500	2.222	2.000
50	7.133	6.661	6.246	5.554	4.999	4.545	4.167	4.000	3.333	2.857	2.500	2.222	2.000

TABLE A-2 Present Value Factors (at R Percent) for \$1 Received at the End of N Periods

N	R =												
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%
1	.990	.980	.971	.962	.952	.943	.935	.926	.917	.909	.901	.893	.885
2	.980	.961	.943	.925	.907	.890	.873	.857	.842	.826	.812	.797	.783
3	.971	.942	.915	.889	.864	.840	.816	.794	.772	.751	.731	.712	.693
4	.961	.924	.888	.855	.823	.792	.763	.735	.708	.683	.659	.636	.613
5	.951	.906	.863	.822	.784	.747	.713	.681	.650	.621	.593	.567	.543
6	.942	.888	.837	.790	.746	.705	.666	.630	.596	.564	.535	.507	.480
7	.933	.871	.813	.760	.711	.665	.623	.583	.547	.513	.482	.452	.425
8	.923	.853	.789	.731	.677	.627	.582	.540	.502	.467	.434	.404	.376
9	.914	.837	.766	.703	.645	.592	.544	.500	.460	.424	.391	.361	.333
10	.905	.820	.744	.676	.614	.558	.508	.463	.422	.386	.352	.322	.295
11	.896	.804	.722	.650	.585	.527	.475	.429	.388	.350	.317	.287	.261
12	.887	.788	.701	.625	.557	.497	.444	.397	.356	.319	.286	.257	.231
13	.879	.773	.681	.601	.530	.469	.415	.368	.326	.290	.258	.229	.204
14	.870	.758	.661	.577	.505	.442	.388	.340	.299	.263	.232	.205	.181
15	.861	.743	.642	.555	.481	.417	.362	.315	.275	.239	.209	.183	.160
16	.853	.728	.623	.534	.458	.394	.339	.292	.252	.218	.188	.163	.141
17	.844	.714	.605	.513	.436	.371	.317	.270	.231	.198	.170	.146	.125
18	.836	.700	.587	.494	.416	.350	.296	.250	.212	.180	.153	.130	.111
19	.828	.686	.570	.475	.396	.331	.277	.232	.194	.164	.138	.116	.098
20	.820	.673	.554	.456	.377	.312	.258	.215	.178	.149	.124	.104	.087
21	.811	.660	.538	.439	.359	.294	.242	.199	.164	.135	.112	.093	.077
22	.803	.647	.522	.422	.342	.278	.226	.184	.150	.123	.101	.083	.068
23	.795	.634	.507	.406	.326	.262	.211	.170	.136	.112	.091	.074	.060
24	.788	.622	.492	.390	.310	.247	.197	.158	.126	.102	.082	.066	.053
25	.780	.610	.478	.375	.295	.233	.184	.146	.116	.092	.074	.059	.047
30	.742	.552	.412	.308	.231	.174	.131	.099	.075	.057	.044	.033	.026
35	.706	.500	.355	.253	.181	.130	.094	.068	.049	.036	.026	.019	.014
40	.672	.453	.307	.208	.142	.097	.067	.046	.032	.022	.015	.011	.008
45	.639	.410	.264	.171	.111	.073	.048	.031	.021	.014	.009	.006	.004
50	.608	.372	.228	.141	.087	.054	.034	.021	.013	.009	.005	.003	.002

TABLE A-2 Present Value Factors (at R Percent) for \$1 Received at the End of N Periods (Continued)

N	R =													
	14%	15%	16%	18%	20%	22%	24%	25%	30%	35%	40%	45%	50%	
1	.877	.870	.862	.847	.833	.820	.806	.800	.769	.741	.714	.690	.667	
2	.769	.756	.743	.718	.694	.672	.650	.640	.592	.449	.510	.476	.444	
3	.675	.658	.641	.609	.579	.551	.524	.512	.455	.406	.364	.328	.296	
4	.592	.572	.552	.516	.482	.451	.423	.410	.350	.301	.260	.226	.198	
5	.519	.497	.476	.437	.402	.370	.341	.328	.269	.223	.186	.156	.132	
6	.456	.432	.410	.370	.335	.303	.275	.262	.207	.165	.133	.108	.088	
7	.400	.376	.354	.314	.279	.249	.222	.210	.159	.122	.095	.074	.059	
8	.351	.327	.305	.266	.233	.204	.179	.168	.123	.091	.068	.051	.039	
9	.308	.284	.263	.225	.194	.167	.144	.134	.094	.067	.048	.035	.026	
10	.270	.247	.227	.191	.162	.137	.116	.107	.073	.050	.035	.024	.017	
11	.237	.215	.195	.162	.135	.112	.094	.086	.056	.037	.025	.017	.012	
12	.208	.187	.168	.137	.112	.092	.076	.069	.043	.027	.018	.012	.008	
13	.182	.163	.145	.116	.093	.075	.061	.055	.033	.020	.013	.008	.005	
14	.160	.141	.125	.099	.078	.062	.049	.044	.025	.015	.009	.006	.003	
15	.140	.123	.108	.084	.065	.051	.040	.035	.020	.011	.006	.004	.002	
16	.123	.107	.093	.071	.054	.042	.032	.028	.015	.008	.005	.003	.002	
17	.108	.093	.080	.060	.045	.034	.026	.023	.012	.006	.003	.002	.001	
18	.095	.081	.069	.051	.038	.028	.021	.018	.009	.005	.002	.001	.001	
19	.083	.070	.060	.043	.031	.023	.017	.014	.007	.003	.002	.001	.001	
20	.073	.061	.051	.037	.026	.019	.014	.012	.005	.002	.001	.001	.001	
21	.064	.053	.044	.031	.022	.015	.011	.009	.004	.002	.001	.001	.001	
22	.056	.046	.038	.026	.018	.013	.009	.007	.003	.001	.001	.001	.001	
23	.049	.040	.033	.022	.015	.010	.007	.006	.002	.001	.001	.001	.001	
24	.043	.035	.028	.019	.013	.008	.006	.005	.002	.001	.001	.001	.001	
25	.038	.030	.024	.016	.010	.007	.005	.004	.001	.001	.001	.001	.001	
30	.020	.015	.012	.007	.004	.003	.002	.001	.001	.001	.001	.001	.001	
35	.010	.008	.006	.003	.002	.001	.001	.001	.001	.001	.001	.001	.001	
40	.005	.004	.003	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	
45	.003	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	
50	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	