University of Swaziland
Department of Accounting
Main Exam Paper - Semester - II

Programme of Study	:	Bachelor of Commerce
Year of Study	:	Year Three / Level Five
Title of Paper	:	Corporate Finance I
Course Code	:	AC 325/416
Time Allowed	:	**3 Hours.**

Instructions: **1. Total number of questions on this paper is four (4).**

2. Answer all the questions.

3. The marks awarded for a question / part is indicated at the end of each question / part of question.

4. Where applicable, submit all workings and calculations on the answer sheet alongside the case.

5. Calculations are to be made to two decimal places of accuracy unless otherwise instructed.

Note: You are reminded that in assessing your work, account will be taken of accuracy of the language and the general quality of expression, together with the layout and presentation of your final answer.

Special requirement   :   **Calculator & Present Value Tables**

This paper is not to be opened until permission has been granted by the invigilator.

QUESTION 1:

A. Sturdy Tires sells on the credit terms of net 40 days, whereas the rest of the industry sells on terms of net 30 days. On annual credit sales of E 8,000,000, Sturdy currently averages 50 days sales in accounts receivables. The firm's CFO estimates that tightening the credit terms to net 30 days would reduce annual sales to E 7,800,000, but accounts receivables would drop to 35 days of sales, and the savings on investment in them should more than overcome any loss in profit. Sturdy's variable cost ratio is 80 percent and its marginal tax rate is 30 percent. The rate on funds invested in receivables is 10 percent and all operating costs are paid when inventory is sold. The change is expected to decrease bad debt losses from 2 percent to 1.5 percent and collection costs will not change.

Required:

Determine on the basis of NPV analysis whether Sturdy should tighten the credit policy. Assume a 360 day year. **(20 marks)**

B. The Meyer Company makes purchases of E 3,600,000 per year under terms of 2/10, net 35 and takes discount.

Required:

i) Is there a cost for the trade credit the firm uses?
ii) If the firm did not take discounts and it paid on time, what would be the APR and EAR of this non-free trade credit?
iii) What would be the APR and EAR of not taking discounts if the firm could stretch its payments to 40 days? **(8 marks)**

Total (28 marks)

QUESTION 2:

Write **short notes** on the following:

i) Methods of using inventory as security in inventory financing **(8 marks)**
ii) Commercial paper **(5 marks)**
iii) Why financial forecasting and control functions are important for a firm **(7 marks)**

Total (20 marks)

QUESTION 3:

Strong Enterprises Limited is a manufacturer of high quality running shoes. Miss Dazzling, the CFO of the company is presently considering the computerization of the company's inventory and billing systems. She estimates that the annual savings from the computerization include a reduction of 6 clerical employees with annual salaries of E 36,000 each, E 10,000 from reduced production delays caused by raw material inventory problems, E 15,000 from lost sales due to inventory stock-outs and E 6,000 associated with timely billing procedures. The purchase price of the system is E 220,000 and installation costs are E 45,000. These outlays will be capitalized (depreciated on a straight line basis) to a zero book salvage value which is also its market value at the end of five years. Operation of the new system requires two computer specialists with annual salaries of E 60,000 per person. Also annual maintenance and operating (cash) expenses of E 50,000 are estimated to be required. The corporate tax rate is 30% and its required rate of return for this project is 12%.

Required:

i)   Calculate the project's initial cash outlay

ii)   Calculate the project's operating and terminal cash-flows over its five year life

iii)   Evaluate the project using NPV and IRR methods

iv)   Recommend as to the viability of the project based on the above two methods

v)   Find the project's cash flows and NPV assuming that the system can be sold for E 25,000 at the end of five years even though the book salvage value is zero

vi)   Find the project's cash flows and NPV assuming that the book salvage value for depreciation purposes is E 25,000 even though the system is worth less in terms of its resale value.

Note:

1. Present value of an annuity of E1 @ 12% for five periods is 3.605
2. Present value of E1 @ 12% at the end of 5th period is 0.567

(29 marks)

QUESTION 4:

A. Quality Electronics produces electric kettles selling 500,000 kettles per year. The operating variable cost of each kettle is E75, and fixed operating costs are E 10,000,000. Each kettle sells for E100. Interest paid by the firm is E 50,000 per year and preferred dividend paid is E 20,000. The firm is in 30% tax bracket.

Required:

i)   Calculate Quality's operating break-even point.
ii) On the basis of the firm's sales of 500,000 kettles per year and its interest and preferred dividend costs, calculate its EBIT and earnings available for common.
iii) Calculate the firm's Degree of Operating Leverage
iv) Calculate the firm's Degree of Financial Leverage
v)   Calculate the firm's Degree of Total Leverage
vi) Suppose, if Quality Electronics has received a contract to produce and sell an additional 100,000 kettles in the coming year, what is the impact of accepting this order on the firm. Use Degree of Operating Leverage, Degree of Financial Leverage, and Degree of Total Leverage to predict and calculate the changes in EBIT and earnings available to common. Comment.

(14 marks)

B. Stellenbosch Wines is a retailer which sells vintage wines in Corner Plaza, Ezulweni.
The firm has established policy of reordering inventory every thirty days. A recently employed MBA had considered Stellenbosch inventory problem from the EOQ model view point. If the following constitute the relevant data, how does the current policy compare with the optimal policy in terms of optimal number of units per order (EOQ), number of orders to be placed per year and the total cost of ordering and carrying inventory?

Ordering cost	E10 per order
Carrying cost	20% of purchase price
Purchase price	E10 per unit
Total sales for year	1,000 units
Safety stock	100 units

(9 marks)
Total (23 marks)

End of exam question paper

Present Value of $1

Interest rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3505	0.3173	0.2875
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2858	0.2567
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2575	0.2292
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2320	0.2046
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.2090	0.1827
16	0.8528	0.7284	0.6232	0.5339	0.4581	0.3936	0.3387	0.2919	0.2519	0.2176	0.1883	0.1631
17	0.8444	0.7142	0.6050	0.5134	0.4363	0.3714	0.3166	0.2703	0.2311	0.1978	0.1696	0.1456
18	0.8360	0.7002	0.5874	0.4936	0.4155	0.3503	0.2959	0.2502	0.2120	0.1799	0.1528	0.1300
19	0.8277	0.6864	0.5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1945	0.1635	0.1377	0.1161
20	0.8195	0.6730	0.5537	0.4564	0.3769	0.3118	0.2584	0.2145	0.1784	0.1486	0.1240	0.1037
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.1351	0.1117	0.0926
22	0.8034	0.6468	0.5219	0.4220	0.3418	0.2775	0.2257	0.1839	0.1502	0.1228	0.1007	0.0826
23	0.7954	0.6342	0.5067	0.4057	0.3256	0.2618	0.2109	0.1703	0.1378	0.1117	0.0907	0.0738
24	0.7876	0.6217	0.4919	0.3901	0.3101	0.2470	0.1971	0.1577	0.1264	0.1015	0.0817	0.0659
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160	0.0923	0.0736	0.0588
26	0.7720	0.5976	0.4637	0.3607	0.2812	0.2198	0.1722	0.1352	0.1064	0.0839	0.0663	0.0525
27	0.7644	0.5859	0.4502	0.3468	0.2678	0.2074	0.1609	0.1252	0.0976	0.0763	0.0597	0.0469
28	0.7568	0.5744	0.4371	0.3335	0.2551	0.1956	0.1504	0.1159	0.0895	0.0693	0.0538	0.0419
29	0.7493	0.5631	0.4243	0.3207	0.2429	0.1846	0.1406	0.1073	0.0822	0.0630	0.0485	0.0374
30	0.7419	0.5521	0.4120	0.3083	0.2314	0.1741	0.1314	0.0994	0.0754	0.0573	0.0437	0.0334
31	0.7346	0.5412	0.4000	0.2965	0.2204	0.1643	0.1228	0.0920	0.0691	0.0521	0.0394	0.0298
32	0.7273	0.5306	0.3883	0.2851	0.2099	0.1550	0.1147	0.0852	0.0634	0.0474	0.0355	0.0266
33	0.7201	0.5202	0.3770	0.2741	0.1999	0.1462	0.1072	0.0789	0.0582	0.0431	0.0319	0.0238
34	0.7130	0.5100	0.3660	0.2636	0.1904	0.1379	0.1002	0.0730	0.0534	0.0391	0.0288	0.0212
35	0.7059	0.5000	0.3554	0.2534	0.1813	0.1301	0.0937	0.0676	0.0490	0.0356	0.0259	0.0189
36	0.6989	0.4902	0.3450	0.2437	0.1727	0.1227	0.0875	0.0626	0.0449	0.0323	0.0234	0.0169
37	0.6920	0.4806	0.3350	0.2343	0.1644	0.1158	0.0818	0.0580	0.0412	0.0294	0.0210	0.0151
38	0.6852	0.4712	0.3252	0.2253	0.1566	0.1092	0.0765	0.0537	0.0378	0.0267	0.0190	0.0135
39	0.6784	0.4619	0.3158	0.2166	0.1491	0.1031	0.0715	0.0497	0.0347	0.0243	0.0171	0.0120
40	0.6717	0.4529	0.3066	0.2083	0.1420	0.0972	0.0668	0.0460	0.0318	0.0221	0.0154	0.0107

Present Value of $1

Interest rate (r)

Periods (n)	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%
1	0.8850	0.8772	0.8696	0.8621	0.8547	0.8475	0.8403	0.8333	0.8264	0.8197	0.8130	0.8065
2	0.7831	0.7695	0.7561	0.7432	0.7305	0.7182	0.7062	0.6944	0.6830	0.6719	0.6610	0.6504
3	0.6931	0.6750	0.6575	0.6407	0.6244	0.6086	0.5934	0.5787	0.5645	0.5507	0.5374	0.5245
4	0.6133	0.5921	0.5718	0.5523	0.5337	0.5158	0.4987	0.4823	0.4665	0.4514	0.4369	0.4230
5	0.5428	0.5194	0.4972	0.4761	0.4561	0.4371	0.4190	0.4019	0.3855	0.3700	0.3552	0.3411
6	0.4803	0.4556	0.4323	0.4104	0.3898	0.3704	0.3521	0.3349	0.3186	0.3033	0.2888	0.2751
7	0.4251	0.3996	0.3759	0.3538	0.3332	0.3139	0.2959	0.2791	0.2633	0.2486	0.2348	0.2218
8	0.3762	0.3506	0.3269	0.3050	0.2848	0.2660	0.2487	0.2326	0.2176	0.2038	0.1909	0.1789
9	0.3329	0.3075	0.2843	0.2630	0.2434	0.2255	0.2090	0.1938	0.1799	0.1670	0.1552	0.1443
10	0.2946	0.2697	0.2472	0.2267	0.2080	0.1911	0.1756	0.1615	0.1486	0.1369	0.1262	0.1164
11	0.2607	0.2366	0.2149	0.1954	0.1778	0.1619	0.1476	0.1346	0.1228	0.1122	0.1026	0.0938
12	0.2307	0.2076	0.1869	0.1685	0.1520	0.1372	0.1240	0.1122	0.1015	0.0920	0.0834	0.0757
13	0.2042	0.1821	0.1625	0.1452	0.1299	0.1163	0.1042	0.0935	0.0839	0.0754	0.0678	0.0610
14	0.1807	0.1597	0.1413	0.1252	0.1110	0.0985	0.0876	0.0779	0.0693	0.0618	0.0551	0.0492
15	0.1599	0.1401	0.1229	0.1079	0.0949	0.0835	0.0736	0.0649	0.0573	0.0507	0.0448	0.0397
16	0.1415	0.1229	0.1069	0.0930	0.0811	0.0708	0.0618	0.0541	0.0474	0.0415	0.0364	0.0320
17	0.1252	0.1078	0.0929	0.0802	0.0693	0.0600	0.0520	0.0451	0.0391	0.0340	0.0296	0.0258
18	0.1108	0.0946	0.0808	0.0691	0.0592	0.0508	0.0437	0.0376	0.0323	0.0279	0.0241	0.0208
19	0.0981	0.0829	0.0703	0.0596	0.0506	0.0431	0.0367	0.0313	0.0267	0.0229	0.0196	0.0168
20	0.0868	0.0728	0.0611	0.0514	0.0433	0.0365	0.0308	0.0261	0.0221	0.0187	0.0159	0.0135
21	0.0768	0.0638	0.0531	0.0443	0.0370	0.0309	0.0259	0.0217	0.0183	0.0154	0.0129	0.0109
22	0.0680	0.0560	0.0462	0.0382	0.0316	0.0262	0.0218	0.0181	0.0151	0.0126	0.0105	0.0088
23	0.0601	0.0491	0.0402	0.0329	0.0270	0.0222	0.0183	0.0151	0.0125	0.0103	0.0086	0.0071
24	0.0532	0.0431	0.0349	0.0284	0.0231	0.0188	0.0154	0.0126	0.0103	0.0085	0.0070	0.0057
25	0.0471	0.0378	0.0304	0.0245	0.0197	0.0160	0.0129	0.0105	0.0085	0.0069	0.0057	0.0046
26	0.0417	0.0331	0.0264	0.0211	0.0169	0.0135	0.0109	0.0087	0.0070	0.0057	0.0046	0.0037
27	0.0369	0.0291	0.0230	0.0182	0.0144	0.0115	0.0091	0.0073	0.0058	0.0047	0.0037	0.0030
28	0.0326	0.0255	0.0200	0.0157	0.0123	0.0097	0.0077	0.0061	0.0048	0.0038	0.0030	0.0024
29	0.0289	0.0224	0.0174	0.0135	0.0105	0.0082	0.0064	0.0051	0.0040	0.0031	0.0025	0.0020
30	0.0256	0.0196	0.0151	0.0116	0.0090	0.0070	0.0054	0.0042	0.0033	0.0026	0.0020	0.0016
31	0.0226	0.0172	0.0131	0.0100	0.0070	0.0059	0.0046	0.0035	0.0027	0.0021	0.0016	0.0013
32	0.0200	0.0151	0.0114	0.0087	0.0066	0.0050	0.0038	0.0029	0.0022	0.0017	0.0013	0.0010
33	0.0177	0.0132	0.0099	0.0075	0.0056	0.0042	0.0032	0.0024	0.0019	0.0014	0.0011	0.0008
34	0.0157	0.0116	0.0086	0.0064	0.0048	0.0036	0.0027	0.0020	0.0015	0.0012	0.0009	0.0007
35	0.0139	0.0102	0.0075	0.0055	0.0041	0.0030	0.0023	0.0017	0.0013	0.0009	0.0007	0.0005
36	0.0123	0.0089	0.0065	0.0048	0.0035	0.0026	0.0019	0.0014	0.0010	0.0008	0.0006	0.0004
37	0.0109	0.0078	0.0057	0.0041	0.0030	0.0022	0.0016	0.0012	0.0009	0.0006	0.0005	0.0003
38	0.0096	0.0069	0.0049	0.0036	0.0026	0.0019	0.0013	0.0010	0.0007	0.0005	0.0004	0.0003
39	0.0085	0.0060	0.0043	0.0031	0.0022	0.0016	0.0011	0.0008	0.0006	0.0004	0.0003	0.0002
40	0.0075	0.0053	0.0037	0.0026	0.0019	0.0013	0.0010	0.0007	0.0005	0.0004	0.0003	0.0002

Present Value of an Annuity of $1

Interest rate (r)

ods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.8892	5.6502
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	6.2065	5.9377
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.4924	6.1944
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.7499	6.4235
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.9819	6.6282
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	7.1909	6.8109
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	7.3792	6.9740
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.5488	7.1196
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.7016	7.2497
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.8393	7.3658
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.9633	7.4694
21	18.8570	17.0112	15.4150	14.0292	12.8212	11.7641	10.8355	10.0168	9.2922	8.6487	8.0751	7.5620
22	19.6604	17.6580	15.9369	14.4511	13.1630	12.0416	11.0612	10.2007	9.4424	8.7715	8.1757	7.6446
23	20.4558	18.2922	16.4436	14.8568	13.4886	12.3034	11.2722	10.3711	9.5802	8.8832	8.2664	7.7184
24	21.2434	18.9139	16.9355	15.2470	13.7986	12.5504	11.4693	10.5288	9.7066	8.9847	8.3481	7.7843
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	8.4217	7.8431
26	22.7952	20.1210	17.8768	15.9828	14.3752	13.0032	11.8258	10.8100	9.9290	9.1609	8.4881	7.8957
27	23.5596	20.7069	18.3270	16.3296	14.6430	13.2105	11.9867	10.9352	10.0266	9.2372	8.5478	7.9426
28	24.3164	21.2813	18.7641	16.6631	14.8981	13.4062	12.1371	11.0511	10.1161	9.3066	8.6016	7.9844
29	25.0658	21.8444	19.1885	16.9837	15.1411	13.5907	12.2777	11.1584	10.1983	9.3696	8.6501	8.0218
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.6938	8.0552
31	26.5423	22.9377	20.0004	17.5885	15.5928	13.9291	12.5318	11.3498	10.3428	9.4790	8.7331	8.0850
32	27.2696	23.4683	20.3888	17.8736	15.8027	14.0840	12.6466	11.4350	10.4062	9.5264	8.7686	8.1116
33	27.9897	23.9886	20.7658	18.1476	16.0025	14.2302	12.7538	11.5139	10.4644	9.5694	8.8005	8.1354
34	28.7027	24.4986	21.1318	18.4112	16.1929	14.3681	12.8540	11.5869	10.5178	9.6086	8.8293	8.1566
35	29.4086	24.9986	21.4872	18.6646	16.3742	14.4982	12.9477	11.6546	10.5668	9.6442	8.8552	8.1755
36	30.1075	25.4888	21.8323	18.9083	16.5469	14.6210	13.0352	11.7172	10.6118	9.6765	8.8786	8.1924
37	30.7995	25.9695	22.1672	19.1426	16.7113	14.7368	13.1170	11.7752	10.6530	9.7059	8.8996	8.2075
38	31.4847	26.4406	22.4925	19.3679	16.8679	14.8460	13.1935	11.8289	10.6908	9.7327	8.9186	8.2210
39	32.1630	26.9026	22.8082	19.5845	17.0170	14.9491	13.2649	11.8786	10.7255	9.7570	8.9357	8.2330
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.9511	8.2438

Present Value of an Annuity of $1

Interest rate (r)

Periods (n)	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%
1	0.8850	0.8772	0.8696	0.8621	0.8547	0.8475	0.8403	0.8333	0.8264	0.8197	0.8130	0.8065
2	1.6681	1.6467	1.6257	1.6052	1.5852	1.5656	1.5465	1.5278	1.5095	1.4915	1.4740	1.4568
3	2.3612	2.3216	2.2832	2.2459	2.2096	2.1743	2.1399	2.1065	2.0739	2.0422	2.0114	1.9813
4	2.9745	2.9137	2.8550	2.7982	2.7432	2.6901	2.6386	2.5887	2.5404	2.4936	2.4483	2.4043
5	3.5172	3.4331	3.3522	3.2743	3.1993	3.1272	3.0576	2.9906	2.9260	2.8636	2.8035	2.7454
6	3.9975	3.8887	3.7845	3.6847	3.5892	3.4976	3.4098	3.3255	3.2446	3.1669	3.0923	3.0205
7	4.4226	4.2883	4.1604	4.0386	3.9224	3.8115	3.7057	3.6046	3.5079	3.4155	3.3270	3.2423
8	4.7988	4.6389	4.4873	4.3436	4.2072	4.0776	3.9544	3.8372	3.7256	3.6193	3.5179	3.4212
9	5.1317	4.9464	4.7716	4.6065	4.4506	4.3030	4.1633	4.0310	3.9054	3.7863	3.6731	3.5655
10	5.4262	5.2161	5.0188	4.8332	4.6586	4.4941	4.3389	4.1925	4.0541	3.9232	3.7993	3.6819
11	5.6869	5.4527	5.2337	5.0286	4.8364	4.6560	4.4865	4.3271	4.1769	4.0354	3.9018	3.7757
12	5.9176	5.6603	5.4206	5.1971	4.9884	4.7932	4.6105	4.4392	4.2784	4.1274	3.9852	3.8514
13	6.1218	5.8424	5.5831	5.3423	5.1183	4.9095	4.7147	4.5327	4.3624	4.2028	4.0530	3.9124
14	6.3025	6.0021	5.7245	5.4675	5.2293	5.0081	4.8023	4.6106	4.4317	4.2646	4.1082	3.9616
15	6.4624	6.1422	5.8474	5.5755	5.3242	5.0916	4.8759	4.6755	4.4890	4.3152	4.1530	4.0013
16	6.6039	6.2651	5.9542	5.6685	5.4053	5.1624	4.9377	4.7296	4.5364	4.3567	4.1894	4.0333
17	6.7291	6.3729	6.0472	5.7487	5.4746	5.2223	4.9897	4.7746	4.5755	4.3908	4.2190	4.0591
18	6.8399	6.4674	6.1280	5.8178	5.5339	5.2732	5.0333	4.8122	4.6079	4.4187	4.2431	4.0799
19	6.9380	6.5504	6.1982	5.8775	5.5845	5.3162	5.0700	4.8435	4.6346	4.4415	4.2627	4.0967
20	7.0248	6.6231	6.2593	5.9288	5.6278	5.3527	5.1009	4.8696	4.6567	4.4603	4.2786	4.1103
21	7.1016	6.6870	6.3125	5.9731	5.6648	5.3837	5.1268	4.8913	4.6750	4.4756	4.2916	4.1212
22	7.1695	6.7429	6.3587	6.0113	5.6964	5.4099	5.1486	4.9094	4.6900	4.4882	4.3021	4.1300
23	7.2297	6.7921	6.3988	6.0442	5.7234	5.4321	5.1668	4.9245	4.7025	4.4985	4.3106	4.1371
24	7.2829	6.8351	6.4338	6.0726	5.7465	5.4509	5.1822	4.9371	4.7128	4.5070	4.3176	4.1428
25	7.3300	6.8729	6.4641	6.0971	5.7662	5.4669	5.1951	4.9476	4.7213	4.5139	4.3232	4.1474
26	7.3717	6.9061	6.4906	6.1182	5.7831	5.4804	5.2060	4.9563	4.7284	4.5196	4.3278	4.1511
27	7.4086	6.9352	6.5135	6.1364	5.7975	5.4919	5.2151	4.9636	4.7342	4.5243	4.3316	4.1542
28	7.4412	6.9607	6.5335	6.1520	5.8099	5.5016	5.2228	4.9697	4.7390	4.5281	4.3346	4.1566
29	7.4701	6.9830	6.5509	6.1656	5.8204	5.5098	5.2292	4.9747	4.7430	4.5312	4.3371	4.1585
30	7.4957	7.0027	6.5660	6.1772	5.8294	5.5168	5.2347	4.9789	4.7463	4.5338	4.3391	4.1601
31	7.5183	7.0199	6.5791	6.1872	5.8371	5.5227	5.2392	4.9824	4.7490	4.5359	4.3407	4.1614
32	7.5383	7.0350	6.5905	6.1959	5.8437	5.5277	5.2430	4.9854	4.7512	4.5376	4.3421	4.1624
33	7.5560	7.0482	6.6005	6.2034	5.8493	5.5320	5.2462	4.9878	4.7531	4.5390	4.3431	4.1632
34	7.5717	7.0599	6.6091	6.2098	5.8541	5.5356	5.2489	4.9898	4.7546	4.5402	4.3440	4.1639
35	7.5856	7.0700	6.6166	6.2153	5.8582	5.5386	5.2512	4.9915	4.7559	4.5411	4.3447	4.1644
36	7.5979	7.0790	6.6231	6.2201	5.8617	5.5412	5.2531	4.9929	4.7569	4.5419	4.3453	4.1649
37	7.6087	7.0868	6.6288	6.2242	5.8647	5.5434	5.2547	4.9941	4.7578	4.5426	4.3458	4.1652
38	7.6183	7.0937	6.6338	6.2278	5.8673	5.5452	5.2561	4.9951	4.7585	4.5431	4.3462	4.1655
39	7.6268	7.0997	6.6380	6.2309	5.8695	5.5468	5.2572	4.9959	4.7591	4.5435	4.3465	4.1657
40	7.6344	7.1050	6.6418	6.2335	5.8713	5.5482	5.2582	4.9966	4.7596	4.5439	4.3467	4.1659