University of Eswatini
Department of Accounting and Finance
Main Exam Paper - Semester - II

Programme of Study : Bachelor of Commerce

Year of Study : Year Four / Level Six

Title of Paper : Advanced Management Accounting II

Course Code : ACF414/AC425/AC505

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 & Area under the Normal Distribution Curve Tables

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

QUESTION 1:

Sid Shongwe is the Human Resources director of Shidwashini Consultants, a company that specializes in consulting and research. One of the training programmes Sid is considering for the middle-level managers of his company is leadership training. Sid has listed a number of activities that must be completed before a training program of this nature could be conducted along with their optimistic, pessimistic and most likely completion times in days in the accompanying table.

Activity	Estimated duration (in days)			Immediate predecessor
	Optimistic (a)	Most likely (m)	Pessimistic (b)	
A	1	2	3	--
B	2	3	4	--
C	1	2	3	--
D	2	4	6	B
E	1	4	7	A,D
F	1	2	9	C
G	3	4	11	E,F
H	1	2	3	G

Required:

i) Determine the expected time and variance for each activity **(8 marks)**

ii) Draw the network diagram. **(5 marks)**

iii) Mr Sid would like to determine the earliest and latest start times for each activity and also slack for each activity. **(5 marks)**

iv) Mr Sid would like to determine the critical path for the entire project as well as the expected completion time for the total project **(3 marks)**

v) Calculate the probability that the project will be completed in 20 days? **(4 marks)**

vi) Explain the major differences between PERT and CPM? **(5 marks)**

Total (6*5 = 30 marks)

QUESTION 2:

The management of Girihar Company is disappointed with the company's performance and is wondering what can be done to improve profits.

Girihar Company's statement of Profit or Loss for the last month of April 2020 is given below:

Girihar Company Statement of Profit or Loss for one month ended 31 April 2020	
Revenue	E1,500,000
Less variable expenses	672,000
Contribution margin	828,000
Less fixed expenses	756,000
Operating profit	E72,000

By examining revenue and cost records, you have determined the following:

1. The company is divided into two sales regions – Manzini and Hhohho. The Manzini region recorded E600,000 in revenue and E 312,000 in variable expenses during April 2020; the remaining revenue and variable expenses were recorded in theHhohho region. Fixed expenses of E120,000 and E108,000 are traceable to the Manzini and Hhoho regions, respectively. The rest of the fixed expenses are common to the two regions.

2. The company sells two products – Televisions and Sound Bars. Revenue of Televisions and Sound Bars totalled E 100,000 and E500,000 respectively in the Manzini region during April 2020. Variable expenses are 22% of the selling price for Televisions and 58% for Sound Bars. Cost records show that E60,000 of the Manzini region's fixed expenses are traceable to televisions and E80,000 to sound bars with the remainder common to the two products.

Required:

i) Prepare segmented statements of profit or loss first showing the total company broken down between sales regions and then showing the Manzini territory broken down by product line. Show both amount and percentage columns for the company in total and for each segment **(20 marks)**

ii) Examine the statement you have prepared in (i) above showing the total company, and, segmented by sales region. Which key issues revealed by this statement that should be brought to the attention of management? **(5 marks)**

iii) Examine the statement you have prepared showing the Manzini region segmented by product lines. Issues revealed by this statement should be brought to the attention of management? **(5 marks)**

Total (30 marks)

QUESTION 3:

W&T Inc. is a multinational conglomerate. The company has a business division, W&T Tyres, which manufactures tyres for motor cycles and cars and an automobile division, W&T Automobile that manufactures cars.

W&T Automobile purchases tyres for its automobiles from an outside vendor. However, at the end of the current month, the contract with the vendor for the tyres of vans will expire. Senior management at W&T Inc. feel that the automobile division of the company should purchase tyres for vans from its own tyre division rather than renewing the contract with the outside vendor. The managers of both divisions are also interested in having intra-company transactions as it will be in the best interests of both divisions as well as the company as a whole.

The tyres for vans manufactured by W&T Automobiles are of standard size.

W&T Automobile needs 30,000 tyres in a month to manufacture vans. The quality of the tyres supplied by the outside vendor and those manufactured by W&T Tyres are similar. W&T Automobile currently pays E146 to the outside vendor for a van tyre. However, W&T Tyres charges E148 for a van tyre. The production capacity of the division is 100,000

van tyres per month. The variable cost to produce one van tyre is E70. The fixed cost incurred in the manufacture of van tyres is E 200,000 per month.

Required:

i) Determine the acceptable range of transfer prices if W&T Tyres sells 74,000 tyres per month:

a) If W&T Automobile proposes to buy van tyres at E90 each from W&T Tyres, would the management of W&T Tyres be interested in the proposal?

b) If W&T Automobile proposes to buy van tyres at E90 each from W&T Tyres would the management of W&T Tyres be interested in the proposal?

(9 marks)

ii) W&T Automobile proposes buying van tyres at E90 each from W&T Tyres. If W&T Tyres sells 90,000 van tyres per month, will the management of W&T Tyres still be interested in W&T Automobile's proposal? **(7 marks)**

iii) What are the advantages and disadvantages of the method used by W&T Inc, to negotiate the transfer price? **(4 marks)**

Total (20 marks)

QUESTION 4:

i) Mndzebele Corporation, Mbabane is anxious to enter the electronic calculator market. Management believes that the order to be competitive in neighbouring markets, the electronic calculator that the company is developing cannot be priced at more than E800. Mndzebele requires a minimum return of 12 percent on all investments. An investment of E5,000,000 would be required to acquire the equipment needed to produce the 300,000 calculators that management believes can be sold each year at the E1,500 price,

Required:

Compute the target cost of producing one calculator. **(6 marks)**

ii) Discuss the reasons why the theory of constraints emphasizes managing constraints? **(7 marks)**

iii) Explain ways in which throughput accounting misrepresents the theory of constraints? **(7 marks)**

Total (20 marks)

End of main exam question paper

STANDARD NORMAL DISTRIBUTION: Table Values Represent AREA to the LEFT of the Z score.

Z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.50000	.50399	.50798	.51197	.51595	.51994	.52392	.52790	.53188	.53586
0.1	.53983	.54380	.54776	.55172	.55567	.55962	.56356	.56749	.57142	.57535
0.2	.57926	.58317	.58706	.59095	.59483	.59871	.60257	.60642	.61026	.61409
0.3	.61791	.62172	.62552	.62930	.63307	.63683	.64058	.64431	.64803	.65173
0.4	.65542	.65910	.66276	.66640	.67003	.67364	.67724	.68082	.68439	.68793
0.5	.69146	.69497	.69847	.70194	.70540	.70884	.71226	.71566	.71904	.72240
0.6	.72575	.72907	.73237	.73565	.73891	.74215	.74537	.74857	.75175	.75490
0.7	.75804	.76115	.76424	.76730	.77035	.77337	.77637	.77935	.78230	.78524
0.8	.78814	.79103	.79389	.79673	.79955	.80234	.80511	.80785	.81057	.81327
0.9	.81594	.81859	.82121	.82381	.82639	.82894	.83147	.83398	.83646	.83891
1.0	.84134	.84375	.84614	.84849	.85083	.85314	.85543	.85769	.85993	.86214
1.1	.86433	.86650	.86864	.87076	.87286	.87493	.87698	.87900	.88100	.88298
1.2	.88493	.88686	.88877	.89065	.89251	.89435	.89617	.89796	.89973	.90147
1.3	.90320	.90490	.90658	.90824	.90988	.91149	.91309	.91466	.91621	.91774
1.4	.91924	.92073	.92220	.92364	.92507	.92647	.92785	.92922	.93056	.93189
1.5	.93319	.93448	.93574	.93699	.93822	.93943	.94062	.94179	.94295	.94408
1.6	.94520	.94630	.94738	.94845	.94950	.95053	.95154	.95254	.95352	.95449
1.7	.95543	.95637	.95728	.95818	.95907	.95994	.96080	.96164	.96246	.96327
1.8	.96407	.96485	.96562	.96638	.96712	.96784	.96856	.96926	.96995	.97062
1.9	.97128	.97193	.97257	.97320	.97381	.97441	.97500	.97558	.97615	.97670
2.0	.97725	.97778	.97831	.97882	.97932	.97982	.98030	.98077	.98124	.98169
2.1	.98214	.98257	.98300	.98341	.98382	.98422	.98461	.98500	.98537	.98574
2.2	.98610	.98645	.98679	.98713	.98745	.98778	.98809	.98840	.98870	.98899
2.3	.98928	.98956	.98983	.99010	.99036	.99061	.99086	.99111	.99134	.99158
2.4	.99180	.99202	.99224	.99245	.99266	.99286	.99305	.99324	.99343	.99361
2.5	.99379	.99396	.99413	.99430	.99446	.99461	.99477	.99492	.99506	.99520
2.6	.99534	.99547	.99560	.99573	.99585	.99598	.99609	.99621	.99632	.99643
2.7	.99653	.99664	.99674	.99683	.99693	.99702	.99711	.99720	.99728	.99736
2.8	.99744	.99752	.99760	.99767	.99774	.99781	.99788	.99795	.99801	.99807
2.9	.99813	.99819	.99825	.99831	.99836	.99841	.99846	.99851	.99856	.99861
3.0	.99865	.99869	.99874	.99878	.99882	.99886	.99889	.99893	.99896	.99900
3.1	.99903	.99906	.99910	.99913	.99916	.99918	.99921	.99924	.99926	.99929
3.2	.99931	.99934	.99936	.99938	.99940	.99942	.99944	.99946	.99948	.99950
3.3	.99952	.99953	.99955	.99957	.99958	.99960	.99961	.99962	.99964	.99965
3.4	.99966	.99968	.99969	.99970	.99971	.99972	.99973	.99974	.99975	.99976
3.5	.99977	.99978	.99978	.99979	.99980	.99981	.99981	.99982	.99983	.99983
3.6	.99984	.99985	.99985	.99986	.99986	.99987	.99987	.99988	.99988	.99989
3.7	.99989	.99990	.99990	.99990	.99991	.99991	.99992	.99992	.99992	.99992
3.8	.99993	.99993	.99993	.99994	.99994	.99994	.99994	.99995	.99995	.99995
3.9	.99995	.99995	.99996	.99996	.99996	.99996	.99996	.99996	.99997	.99997

STANDARD NORMAL DISTRIBUTION: Table Values Represent AREA to the LEFT of the Z score.

Z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
-3.9	.00005	.00005	.00004	.00004	.00004	.00004	.00004	.00004	.00003	.00003
-3.8	.00007	.00007	.00007	.00006	.00006	.00006	.00006	.00005	.00005	.00005
-3.7	.00011	.00010	.00010	.00010	.00009	.00009	.00008	.00008	.00008	.00008
-3.6	.00016	.00015	.00015	.00014	.00014	.00013	.00013	.00012	.00012	.00011
-3.5	.00023	.00022	.00022	.00021	.00020	.00019	.00019	.00018	.00017	.00017
-3.4	.00034	.00032	.00031	.00030	.00029	.00028	.00027	.00026	.00025	.00024
-3.3	.00048	.00047	.00045	.00043	.00042	.00040	.00039	.00038	.00036	.00035
-3.2	.00069	.00066	.00064	.00062	.00060	.00058	.00056	.00054	.00052	.00050
-3.1	.00097	.00094	.00090	.00087	.00084	.00082	.00079	.00076	.00074	.00071
-3.0	.00135	.00131	.00126	.00122	.00118	.00114	.00111	.00107	.00104	.00100
-2.9	.00187	.00181	.00175	.00169	.00164	.00159	.00154	.00149	.00144	.00139
-2.8	.00256	.00248	.00240	.00233	.00226	.00219	.00212	.00205	.00199	.00193
-2.7	.00347	.00336	.00326	.00317	.00307	.00298	.00289	.00280	.00272	.00264
-2.6	.00466	.00453	.00440	.00427	.00415	.00402	.00391	.00379	.00368	.00357
-2.5	.00621	.00604	.00587	.00570	.00554	.00539	.00523	.00508	.00494	.00480
-2.4	.00820	.00798	.00776	.00755	.00734	.00714	.00695	.00676	.00657	.00639
-2.3	.01072	.01044	.01017	.00990	.00964	.00939	.00914	.00889	.00866	.00842
-2.2	.01390	.01355	.01321	.01287	.01255	.01222	.01191	.01160	.01130	.01101
-2.1	.01786	.01743	.01700	.01659	.01618	.01578	.01539	.01500	.01463	.01426
-2.0	.02275	.02222	.02169	.02118	.02068	.02018	.01970	.01923	.01876	.01831
-1.9	.02872	.02807	.02743	.02680	.02619	.02559	.02500	.02442	.02385	.02330
-1.8	.03593	.03515	.03438	.03362	.03288	.03216	.03144	.03074	.03005	.02938
-1.7	.04457	.04363	.04272	.04182	.04093	.04006	.03920	.03836	.03754	.03673
-1.6	.05480	.05370	.05262	.05155	.05050	.04947	.04846	.04746	.04648	.04551
-1.5	.06681	.06552	.06426	.06301	.06178	.06057	.05938	.05821	.05705	.05592
-1.4	.08076	.07927	.07780	.07636	.07493	.07353	.07215	.07078	.06944	.06811
-1.3	.09680	.09510	.09342	.09176	.09012	.08851	.08691	.08534	.08379	.08226
-1.2	.11507	.11314	.11123	.10935	.10749	.10565	.10383	.10204	.10027	.09853
-1.1	.13567	.13350	.13136	.12924	.12714	.12507	.12302	.12100	.11900	.11702
-1.0	.15866	.15625	.15386	.15151	.14917	.14686	.14457	.14231	.14007	.13786
-0.9	.18406	.18141	.17879	.17619	.17361	.17106	.16853	.16602	.16354	.16109
-0.8	.21186	.20897	.20611	.20327	.20045	.19766	.19489	.19215	.18943	.18673
-0.7	.24196	.23885	.23576	.23270	.22965	.22663	.22363	.22065	.21770	.21476
-0.6	.27425	.27093	.26763	.26435	.26109	.25785	.25463	.25143	.24825	.24510
-0.5	.30854	.30503	.30153	.29806	.29460	.29116	.28774	.28434	.28096	.27760
-0.4	.34458	.34090	.33724	.33360	.32997	.32636	.32276	.31918	.31561	.31207
-0.3	.38209	.37828	.37448	.37070	.36693	.36317	.35942	.35569	.35197	.34827
-0.2	.42074	.41683	.41294	.40905	.40517	.40129	.39743	.39358	.38974	.38591
-0.1	.46017	.45620	.45224	.44828	.44433	.44038	.43644	.43251	.42858	.42465
-0.0	.50000	.49601	.49202	.48803	.48405	.48006	.47608	.47210	.46812	.46414