



ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

AA2 EXAMINATION - JULY 2015

(AA22) COST ACCOUNTING AND REPORTING

• **Instructions to candidates** (Please Read Carefully):

02-08-2015

Morning

[9.00 – 12.00]

(1) **Time:** 03 hours.

No. of Pages : 13

(2) **All questions should be answered.**

No. of Questions : 10

(3) **Answers should be in one language, in the medium applied for, in the booklets provided.**

(4) **Submit all workings and calculations. State clearly assumptions made by you, if any.**

(5) **Use of Non-programmable calculators is permitted.**

(6) **Action Verb Check List with definitions is attached. Each question begins with an action verb excluding OTQ's. Candidates should answer the questions based on the definition of the verb given in the Action Verb Check List.**

(7) **Mathematical tables are attached.**

(8) **100 Marks.**

SECTION A

Objective Test Questions (OTQs)

Eight (08) compulsory questions

(Total 20 marks)

Question 01

Select the most correct answer for question No. 1.1 to 1.5. Write the number of the selected answer in your answer booklet with the number assigned to the question.

1.1 Which one of the following is **not** an objective of Cost Accounting?

(1) Cost control.

(2) Ascertainment of cost.

(3) Maximization of profit.

(4) Providing information to the management.

(02 marks)

1.2 A company pays Rs.20/- per labour hour to its workers. Standard production is 60 units per labour hour and an incentive of Rs.2/- is paid for each additional units produced by workers. If the workers produced 135,360 units within 1,880 labour hours for a week, the total incentive for the week would be:

(1) Rs.82,720/-.

(2) Rs.45,120/-.

(3) Rs.37,600/-.

(4) Rs.22,560/-.

(02 marks)

SECTION B

Five (05) compulsory questions

(Total 25 marks)

Question 02

Rose Manufacturing Ltd. uses “Material X” for their production. The following information was extracted from the books of the company for the month of June 2015:

Date	Description	Quantity (Units)	Price per unit (Rs.)
01.06.2015	Opening balance	100	20
04.06.2015	Purchases	300	22
08.06.2015	Issues	300	-
12.06.2015	Purchases	700	25
18.06.2015	Issues	200	-
28.06.2015	Issues	400	-

You are required to:

Assess the value of the inventories as at 30th June 2015 based on FIFO method. (05 marks)

Question 03

Zink PLC has three production departments: **A, B** and **C** and two service departments **X** and **Y**. The following data relates to **Zink PLC** for the month of June 2015:

	Production Departments			Service Departments	
	A	B	C	X	Y
Indirect material (Rs.'000)	500	400	300	100	50
Indirect wages (Rs.'000)	800	300	400	200	300
Cost of Property, Plant and Equipment (Rs.'000)	2,000	2,400	1,800	1,600	1,400
Floor Area (square feet)	800	600	600	200	200
Electricity usage (kilowatt)	1,000	800	600	500	300
Number of employees	80	60	40	30	20
Apportioning costs of service departments,					
X	50%	30%	20%		
Y	30%	40%	30%		

Other overhead costs for the month were as follows:

	Rs.
Electricity	360,000
Factory Rent	180,000
Insurance on Property, Plant and Equipment	184,000
Staff meal expenses	230,000

You are required to:

Prepare a statement showing how the production overheads are allocated and apportioned to each of the production department. (05 marks)

Question 04

The following information has been extracted from **Teena (Pvt) Ltd.** which manufactures and sells a single product for the quarter ended 30th June 2015.

	Per unit (Rs.)
Selling Price	45
Direct Material	10
Direct Labour	6
Variable Production Overheads	4

	Budgeted	Actual
Fixed Production Overhead (Rs.)	400,000	380,000
Fixed Distribution Cost (Rs.)	80,000	80,000
Fixed Administration Cost (Rs.)	120,000	130,000
Production (in units)	80,000	70,000
Sales (in units)	70,000	60,000

There was no opening stock as at 01st April 2015.

You are required to:

Prepare Profit Statement for the quarter ended 30th June 2015 using Marginal Costing Method.

(05 marks)

Question 05

The following information was extracted from **Multi Solutions** for the month of May 2015:

	Per unit (Rs.)
Selling price	400
Direct material	125
Direct labour	75
Other variable cost	50

Fixed cost per annum was budgeted as Rs.3,600,000/- and 3,000 units were sold during the month of May 2015.

You are required to:

Calculate the following,

- Break-Even Point (BEP) in units.
- Break-Even Point (BEP) in value.
- Margin of safety in units.
- Margin of safety in value.

(05 marks)

Question 06

(a) State two(02) advantages of standard costing. (02 marks)

(b) The standard cost data for the product **BM** is as follows:

Direct material **X** : 10 kg (1 kg @ Rs.10/- per kg)

Direct material **Y** : 5 kg (1 kg @ Rs.50/- per kg)

Direct labour : 5 hours (1 hour @ Rs.30/- per hour)

Variable overhead : Rs.50/- per unit

Fixed production overheads are absorbed to **BM** at 200% of direct labour.

You are required to:

Prepare Standard Cost Card for the Product **BM**.

(03 marks)

(Total 10 marks)

End of Section B

SECTION C

Three (03) compulsory questions

(Total 30 marks)

Question 07

X Ltd. manufactures product **Exe** through process **A**. The following information relates to process **A** for the month of May 2015:

Input raw material	3,500 kg @ Rs.49.50 per kg
Direct labour	Rs.120,000/-
Overhead	Rs.80,000/-
Output	2,900 units
Normal loss	5% of input and scrap items could be sold for Rs.2/- each

There was no opening work-in-progress. Closing work-in-progress at the end of the month was 400 units and the degree of completion was as follows:

Input raw material : 100%

Direct labour : 50%

Overhead : 50%

You are required to:

Prepare the following:

(a) Production cost evaluation statement by using Average Cost (AVCO) Method.

(b) Process **A** account.

(10 marks)

Question 08

Monaro Traders manufactures product Y. The analysis of standard cost per unit of Y is as follows:

	Per unit (Rs.)
Direct material (40 kg @ Rs. 50 per kg)	2,000
Direct labour (7 hours @ Rs.140 per hour)	980
Variable overhead	500
	3,480

Standard selling price per unit of Y is Rs.5,000/-. Budgeted production for the month is 1,200 units.

The following information was extracted for the month of June 2015, from the company's actual records:

Actual production and sales	1,000 units
Direct material	Rs.1,800,000/- (37,500 kg)
Direct labour	Rs.1,060,500/- (7,070 hours)
Selling price per unit	Rs.4,800/-

You are required to:

Calculate, the following variances:

- (a) Material price variance.
- (b) Material usage variance.
- (c) Labour rate variance.
- (d) Labour efficiency variance.
- (e) Sales price variance.

(10 marks)

Question 09

Associated Automobile (Pvt) Ltd. is engaged in the business of manufacturing electronic components and is operating an Integrated Accounting System. The following information has been extracted from the books of the company for the month of June 2015.

	Rs.
Purchase of raw material on credit	80,000
Carriage inwards paid	1,000
Material issued to production	76,000
Direct wages paid	80,000
Indirect wages paid	70,000
Production overhead absorbed	69,000
Cost of finished goods produced	220,000
Cost of goods sold	180,000
Cash sales	260,000

You are required to,

Prepare the necessary ledger accounts to record the above transactions.

(10 marks)

End of Section C

SECTION D

A Compulsory Question

(25 marks)

Question 10

ABC Ltd. manufactures a single product and the Statement of Financial Position as at 01st July 2015 of the company is given below:

**Statement of Financial Position
as at 01st July 2015**

(Rs.'000)

	Cost	Accumulated Depreciation	Carrying Value
Non Current Assets:			
Land	100,000	-	100,000
Plant and Machinery	24,800	16,900	7,900
Motor Vehicles	8,400	3,280	5,120
			113,020
Current Assets:			
Inventory - Raw material (1,000 kg)		864	
- Finished goods (110 units)		2,090	
Debtors (May - Rs.8,536/-, June - Rs.8,080/-)		16,616	
Cash in hand and at bank		1,358	20,928
Total Assets			133,948
Stated capital		120,000	
Retained earnings		5,768	125,768
Non Current Liabilities:			
Bank loan			2,400
Current Liabilities:			
Creditors (June)			5,780
Total Equity and Liabilities			133,948

The estimates for the next four months are as follows:

	July	August	September	October
Sales (in units)	800	840	960	940
Distribution expenses (Rs.'000)	91	97	117	117
Administration expenses (Rs.'000)	240	240	240	240

ABC Ltd. intends to sell each unit at Rs.9,500/- and the company has estimated that the raw material cost would be Rs.900/- per kg for the next four months. Direct labour is paid at Rs.200/- per hour.

Raw material and labour requirement for unit of finished product are as follows:

Raw material : 8 kg
Direct labour : 4 hours

Raw material stock and finished good stock at the end of each month are as follows:

	31.07.2015	31.08.2015	30.09.2015	31.10.2015
Raw material (in kg)	1,200	950	1,200	1,300
Finished goods (in units)	120	80	100	130

All sales and purchases are on credit basis. Debtors are allowed two months credit to settle their dues and creditors are paid after a credit period of one month. Other expenses are paid in the month in which they are incurred. Depreciation of Rs.150,000/- per month is included in Administration Expenses.

The company has obtained a bank loan facility of Rs.2.4 million at an interest rate of 10% per annum payable monthly. This loan has been granted by the bank on 01st June 2015 with a grace period of three months to commence repayment of loan with the interest. This loan should be settled within a period of two years in equal monthly installments.

The company has planned to sell one of its old Motor Vehicles for Rs.1,480,000/- and to buy a brand new Motor Vehicle for Rs. 2.8 million in September which will be paid in October. However, prospective buyer of the old vehicle has promised to settle the full amount in September.

You are required to:

- (a) **Prepare** the cash budget of **ABC Ltd.** for the four(04) months, July to October 2015, on monthly basis.
- (b) **Calculate** the balances of following as at 31st October 2015:
 - (i) Raw material stock.
 - (ii) Debtors.
 - (iii) Creditors.
- (c) **Explain** the difference between Top-down approach and Bottom-up approach in relation to budgeting.

(25 marks)

End of Section D

ACTION VERB CHECK LIST

Knowledge Process	Verb List	Verb Definitions
Level 01 Comprehension Recall & explain important information	Define	Describe exactly the nature, scope, or meaning.
	Draw	Produce (a picture or diagram).
	Identify	Recognize, establish or select after consideration.
	List	Write the connected items one below the other.
	Relate	To establish logical or causal connections.
	State	Express something definitely or clearly.
	Calculate/Compute	Make a mathematical computation
	Discuss	Examine in detail by argument showing different aspects, for the purpose of arriving at a conclusion.
	Explain	Make a clear description in detail revealing relevant facts.
	Interpret	Present in an understandable terms.
	Recognize	To show validity or otherwise, using knowledge or contextual experience.
	Record	Enter relevant entries in detail.
Summarize	Give a brief statement of the main points (in facts or figures).	

Knowledge Process	Verb List	Verb Definitions
Level 02 Application Use knowledge in a setting other than the one in which it was learned / Solve closed-ended problems	Apply	Put to practical use.
	Assess	Determine the value, nature, ability, or quality.
	Demonstrate	Prove, especially with examples.
	Graph	Represent by means of a graph.
	Prepare	Make ready for a particular purpose.
	Prioritize	Arrange or do in order of importance.
	Reconcile	Make consistent with another.
	Solve	To find a solution through calculations and/or explanation.

Knowledge Process	Verb List	Verb Definitions
Level 03 Analysis Draw relations among ideas and compare and contrast / Solve open-ended problems.	Analyze	Examine in detail in order to determine the solution or outcome.
	Compare	Examine for the purpose of discovering similarities.
	Contrast	Examine in order to show unlikeness or differences.
	Differentiate	Constitute a difference that distinguishes something.
	Outline	Make a summary of significant features.

PRESENT VALUE OF RS.1/-

Rate of Interest Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
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
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149
21	0.811	0.660	0.538	0.439	0.359	0.294	0.242	0.199	0.164	0.135
22	0.803	0.647	0.522	0.422	0.342	0.278	0.226	0.184	0.150	0.123
23	0.795	0.634	0.507	0.406	0.326	0.262	0.211	0.170	0.138	0.112
24	0.788	0.622	0.492	0.390	0.310	0.247	0.197	0.158	0.126	0.102
25	0.780	0.610	0.478	0.375	0.295	0.233	0.184	0.146	0.116	0.092
26	0.772	0.598	0.464	0.361	0.281	0.220	0.172	0.135	0.106	0.084
27	0.764	0.586	0.450	0.347	0.268	0.207	0.161	0.125	0.098	0.076
28	0.757	0.574	0.437	0.333	0.255	0.196	0.150	0.116	0.090	0.069
29	0.749	0.563	0.424	0.321	0.243	0.185	0.141	0.107	0.082	0.063
30	0.742	0.552	0.412	0.308	0.231	0.174	0.131	0.099	0.075	0.057

PRESENT VALUE OF RS.1/-

(Continued)

Rate of Interest Period	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
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
16	0.188	0.163	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054
17	0.170	0.146	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045
18	0.153	0.130	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038
19	0.138	0.116	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031
20	0.124	0.104	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026
21	0.112	0.093	0.077	0.064	0.053	0.044	0.037	0.031	0.026	0.022
22	0.101	0.083	0.068	0.056	0.046	0.038	0.032	0.026	0.022	0.018
23	0.091	0.074	0.060	0.049	0.040	0.033	0.027	0.022	0.018	0.015
24	0.082	0.066	0.053	0.043	0.035	0.028	0.023	0.019	0.015	0.013
25	0.074	0.059	0.047	0.038	0.030	0.024	0.020	0.016	0.013	0.010
26	0.066	0.053	0.042	0.033	0.026	0.021	0.017	0.014	0.011	0.009
27	0.060	0.047	0.037	0.029	0.023	0.018	0.014	0.011	0.009	0.007
28	0.054	0.042	0.033	0.026	0.020	0.016	0.012	0.010	0.008	0.006
29	0.048	0.037	0.029	0.022	0.017	0.014	0.011	0.008	0.006	0.005
30	0.044	0.033	0.026	0.020	0.015	0.012	0.009	0.007	0.005	0.004

CUMULATIVE PRESENT VALUE OF RS.1/-

Rate of Interest Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
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
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.818	9.129	8.514
21	18.857	17.011	15.415	14.029	12.821	11.764	10.836	10.017	9.292	8.649
22	19.660	17.658	15.937	14.451	13.163	12.042	11.061	10.201	9.442	8.772
23	20.456	18.292	16.444	14.857	13.489	12.303	11.272	10.371	9.580	8.883
24	21.243	18.914	16.936	15.247	13.799	12.550	11.469	10.529	9.707	8.985
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.823	9.077
26	22.795	20.121	17.877	15.983	14.375	13.003	11.826	10.810	9.929	9.161
27	23.560	20.707	18.327	16.330	14.643	13.211	11.987	10.935	10.027	9.237
28	24.316	21.281	18.764	16.663	14.898	13.406	12.137	11.051	10.116	9.307
29	25.066	21.844	19.188	16.984	15.141	13.591	12.278	11.158	10.198	9.370
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.427

CUMULATIVE PRESENT VALUE OF RS.1/-

(Continued)

Rate of Interest Period	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
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
16	7.379	6.974	6.604	6.265	5.954	5.668	5.405	5.162	4.938	4.730
17	7.549	7.120	6.729	6.373	6.047	5.749	5.475	5.222	4.990	4.775
18	7.702	7.250	6.840	6.467	6.128	5.818	5.534	5.273	5.033	4.812
19	7.839	7.366	6.938	6.550	6.198	5.877	5.584	5.316	5.070	4.843
20	7.963	7.469	7.025	6.623	6.259	5.929	5.628	5.353	5.101	4.870
21	8.075	7.562	7.102	6.687	6.312	5.973	5.665	5.384	5.127	4.891
22	8.176	7.645	7.170	6.743	6.359	6.011	5.696	5.410	5.149	4.909
23	8.266	7.718	7.230	6.792	6.399	6.044	5.723	5.432	5.167	4.925
24	8.348	7.784	7.283	6.835	6.434	6.073	5.746	5.451	5.182	4.937
25	8.422	7.843	7.330	6.873	6.464	6.097	5.766	5.467	5.195	4.948
26	8.488	7.896	7.372	6.906	6.491	6.118	5.783	5.480	5.206	4.956
27	8.548	7.943	7.409	6.935	6.514	6.136	5.798	5.492	5.215	4.964
28	8.602	7.984	7.441	6.961	6.534	6.152	5.810	5.502	5.223	4.970
29	8.650	8.022	7.470	6.983	6.551	6.166	5.820	5.510	5.229	4.975
30	8.694	8.055	7.496	7.003	6.566	6.177	5.829	5.517	5.235	4.979