No. of Pages - 12
No of Questions - 06

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF SRI LANKA

SCHOOL OF ACCOUNTING AND BUSINESS
BSc. (APPLIED ACCOUNTING) GENERAL / SPECIAL DEGREE PROGRAMME

YEAR I SEMESTER II – INTAKE VII (GROUP B)
END SEMESTER EXAMINATION – OCTOBER 2017

AFM 10430 Intermediate Management Accounting

Date	:	28th October 2017
Time	:	1.00 p.m. - 4.00 p.m.
Duration	:	Three (03) hours

Instructions to Candidates:

- This paper consists of three parts (A, B and C).
- Part A – Answer **ALL** questions in the separate sheet provided
  Part B – **Question No. 02** is **Compulsory**
  Part C – Answer **Three (03)** Questions only
- The total marks for the paper is 100.
- The marks for each question are shown in brackets.
- Use of scientific calculator is allowed.
- Answers should be written neatly and legibly

Part A

Answer **ALL** questions

Question No. 01

Select the most appropriate answer for the questions from I to X.

Suppose that a business purchases a building for Rs. 1,000,000. They also had to incur Rs. 20,000 as legal cost in purchasing the building. It then adds an extension to the building at a cost of Rs.150, 000. The building needs to have a few broken windows mended, its floors polished and some missing roof tiles replaced. These maintenance jobs cost Rs. 50,000. Monthly repair cost amounts to Rs.10, 000.

I. Which one of the following is revenue expenditure according to the information given above?
   a. Purchase cost of the building Rs. 1,000,000
   b. Maintenance cost of Rs.50,000
   c. Legal expenses of Rs. 20,000
   d. Cost of extension to the building Rs.150,000

II. What is the total cost of capital expenditure?
   a. Rs. 60,000
   b. Rs. 170,000
   c. Rs. 1,170,000
   d. Rs. 1,150,000

Directors of J Co. is evaluating a purchasing a machine that requires an initial cash outlay of Rs. 900,000. The project duration is 5 years and the net cash inflows are as follows.

Year	1	2	3	4	5
Net operating cash flow (Rs.000)	200	300	300	400	200
Scrap value (Rs. 000)					100

Use the above information to answer question III and IV

III. What is the payback period of the machine of J Co.?

a. 3 .25 years
b. 2.2 years
c. 3 years
d. 2.08 years

IV. What is the ROCE of the machine?

a. 88%
b. 20%
c. 24%
d. 26%

V. Which of the following accurately defines the internal rate of return (IRR)?

a. The average annual profit from an investment expressed as a percentage of the investment sum
b. The net present value of the cash flows from an investment discounted at the required rate of return
c. The rate (%) at which discounted net profits from an investment are zero
d. The discount rate (%) at which the net present value of the cash flows from an investment is zero

VI. Which of the following tasks would usually be carried out first in the budgetary planning process?

a. Identify the principle budget factor
b. Establish the organization's long term objectives.
c. Establish the level of sales demand
d. Calculate the predetermined overhead absorption rate

VII. PQ Co plans to sell 24,000 units of product R next year. Opening inventory of R is expected to be 2,000 units and PQ Co plans to increase inventory by 25% by the end of the year. How many units of product R should be produced next year?

a. 23,500 units
b. 24,000 units
c. 24,500 units
d. 30,000 unit

VIII. What is a standard hour?

a. An operating hour in which there are no exceptional events, eg: machine breakdown
b. An hour during which only standard units are made
c. An hour during which only standard hourly rates are paid to labour
d. The amount of work achievable in an hour, working at standard efficiency levels

IX. The standard cost information for Silk Co's single product shows the standard direct material content to be 3Kg at Rs. 10 per Kg.

Actual results for the December month were:

Production	1600 Units
Material used	5000 Kg at the cost of Rs.55, 000

All of the materials were purchased and used during the period. The direct material price and usage variance for the month of December are:

	Material price	Material usage
a.	Rs.5,000 (A)	Rs. 2000 (A)
b.	Rs.5,000 (F)	Rs. 2000 (A)
c.	Rs. 2000 (A)	Rs.5,000 (F)
d.	Rs. 2000 (F)	Rs.5,000 (A)

X. Extracts from Lace company's records for January are as follows.

	Budget	Actual
Production	8900 units	8600 units
Direct labour cost	Rs. 106,800	Rs.129,000

What is the direct labour total cost variance?

a. 22,200 (A)
b. 25800 (A)
c. 900 (A)
d. 25800 (F)

PART B

Answer **ALL** questions

Question No. 02 (Compulsory)

a. What is capital budgeting? Explain with an example.

(02 Marks)

b. Explain five factors that should be included in a good capital budgeting process?

(10 Marks)

c. Wooden Wire Company is considering investing in new machinery for its production plant. Following information is available for two equipment.

	Equipment - 1	**Equipment - 2**
Initial investment	Rs. 950,000	Rs. 850,000
Useful life	5 years	4 years
Profit before depreciation		
Year 1	Rs. 150,000	Rs. 200,000
Year 2	Rs. 200,000	Rs. 250,000
Year 3	Rs. 240,000	Rs. 300,000
Year 4	Rs. 290,000	Rs. 450,000
Year 5	Rs. 350,000	-
Scrap value	Rs. 150,000	Rs. 150,000

Company calculate depreciation on reducing balance basis at the rate of 20% per year.

Required:

i. Assuming only one equipment can be purchased suggest which equipment is most profitable in invest in based on

- Payback period method

(02 Marks)

- ROCE method

(06 Marks)

(Total 20 Marks)

PART C

Answer **Only <u>Three (03)</u>** questions

<u>Question No. 03</u>

Giant Build Limited is considering whether to invest in new equipment costing Rs 600,000. The equipment is expected to have an economic life of five years and disposal value at the end of year 5 will be Rs. 250,000 Giant Build Limited's after-tax cost of capital is 15%.

In addition, Rs.40, 000 of working capital will be required to start of the project, increasing to Rs.50, 000 at the beginning of the second year. All the working capital will be recovered at the end of year 5.

The following forecasts relate to the project under consideration:

	Rs. '000'				
Year	**1**	**2**	**3**	**4**	**5**
Sales revenue	250	250	300	350	400
Direct materials cost	50	55	58	64	70
Direct labour cost	25	25	30	30	35
Total direct costs	75	75	88	94	105

Corporation tax is charged on profits at 35%. Tax is payable in the year following the year in which the profits occur. There will be a 20% annual writing-down allowance on capital expenditure, for tax purposes. The tax-allowable depreciation is calculated by the reducing balance method.

Required:

Calculate the Net Present Value of the project and recommend whether or not the project should be undertaken.

(Total 20 Marks)

Question No. 04

a. Established budget committee of an organization ensures the budgeting process is implemented smoothly. Briefly explain **four functions** of a budget committee.

(04 Marks)

b. Briefly explain **five** criticisms against Traditional Budgeting.

(10 Marks)

c. Write short notes on the following.
   - Zero based budget
   - Rolling budget
   - Beyond budgeting

(02 Marks x 3 = 06 Marks)

(Total 20 Marks)

Question No. 05

Following information is available for the PC House Ltd for the six months from January to June.

Month	Sales Rs.	Materials cost Rs.	Labour cost Rs.	Selling and Distribution cost Rs.	Production cost Rs.	Administration cost Rs.
January	72,000	25,000	10,000	4,000	6,000	1,500
February	97,000	31,000	12,100	5,000	6,300	1,700
March	86,000	25,500	10,600	5,500	6,000	2,000
April	88,600	30,600	25,000	6,700	6,500	2,200
May	102,500	37,000	22,000	8,500	8,000	2,500
June	108,700	38,800	23,000	9,000	8,200	2,500

Additional information:

1. Assume the cash balance as at 01st January is Rs. 72,500
2. 50% of the sales are on cash basis and balance on the credit basis.
3. Acquisition of fixed assets will be as follows:
   - Rs.8, 000 in the month of February
   - Rs. 25,000 in the month of April
4. An application has made to the bank for the grant of a loan of Rs. 30,000 and it is hoped that it will be received in the month of May.
5. It is anticipated that a dividend of Rs. 35,000 will be paid in June.
6. Debtors make the payment as follows
   - 25% of the debtors will be settled in the month following the sale
   - 20% will be settled in the month following the 1st credit payment
7. Sales commission is paid at the rate of 3% on sales.
8. One month credit period has been negotiated with creditors.

Required:

Prepare a cash budget for the months from January to June in columnar form.

(Total 20 Marks)

Question No. 06

S & U Ltd manufactures Product Widget and operates a standard costing system. Analysis of variances is made every month. The standard cost card for the product, a widget, is as follows.

Standard cost card – widget

		Rs.
Direct materials	0.5 kilos at Rs.40 per kilo	20
Direct wages	2 hours at Rs.200 per hour	400
Variable overheads	2 hours at Rs.75 per hour	150
Fixed overhead	2 hours at Rs.100 per hour	200
Standard cost		770.
Standard profit		200.
Standing selling price		970.00

Additional information:

1. Budgeted output for January was 5,100 units.
2. Actual results for January were as follows.
   - Production of 4,850 units was sold for Rs. 4,850,000
   - Materials consumed in production amounted to 2,300 kilos at a total cost of Rs.94, 300
   - Labour hours paid for amounted to 9,000 hours at a cost of Rs. 2,250,000
   - Actual operating hours amounted to 8,000 hours (applicable to variable and fixed overhead)
   - Variable overheads amounted to Rs. 640,000
   - Fixed overheads amounted to Rs.1, 000,000

Required:

i. Calculate the following variances:
   - Sales price variance
   - Sales volume variance
   - Material price variance
   - Material usage variance
   - Labour rate variance
   - Labour efficiency variance
   - Fixed overhead expenditure variance

(07 Marks)

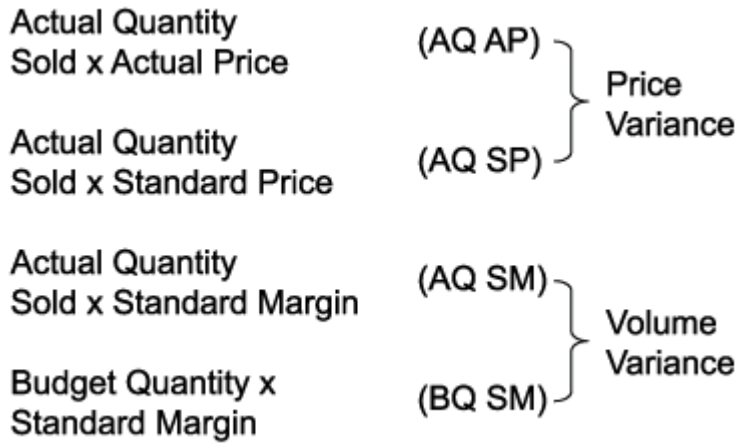
ii. Prepare a proforma operating statement under absorption costing to reconcile budgeted profit with actual profit for the period using the variances calculated above.

(13 Marks)

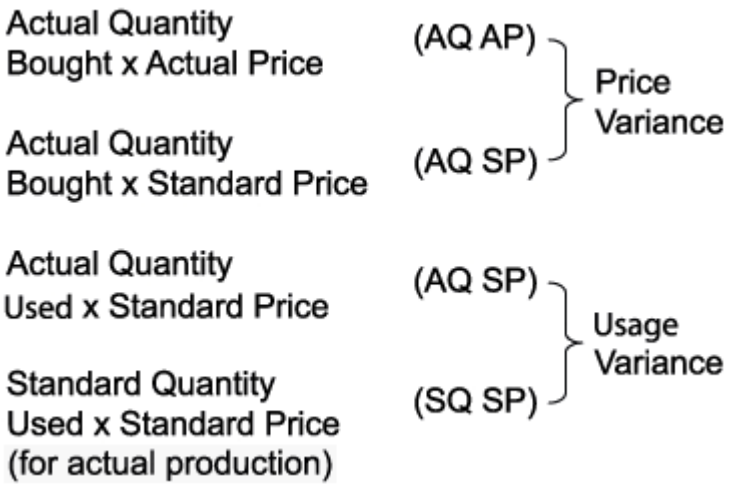
(Total 20 Marks)

FORMULAE SHEET

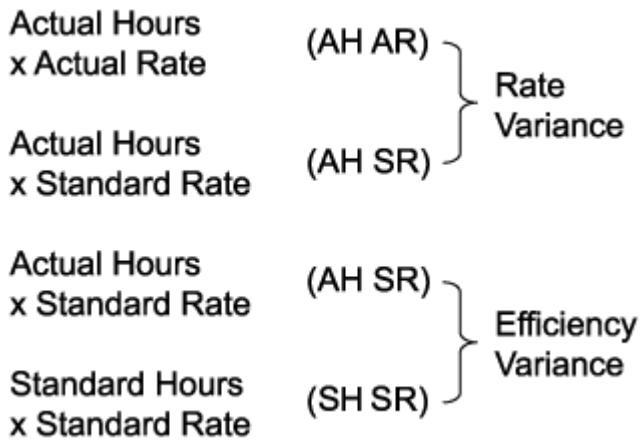
SALES VARIANCE



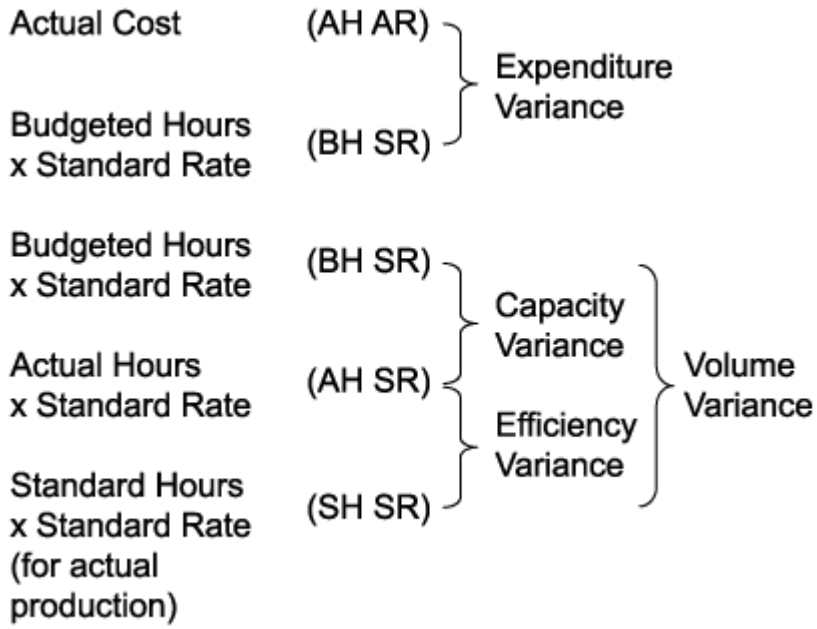
MATERIAL VARIANCE



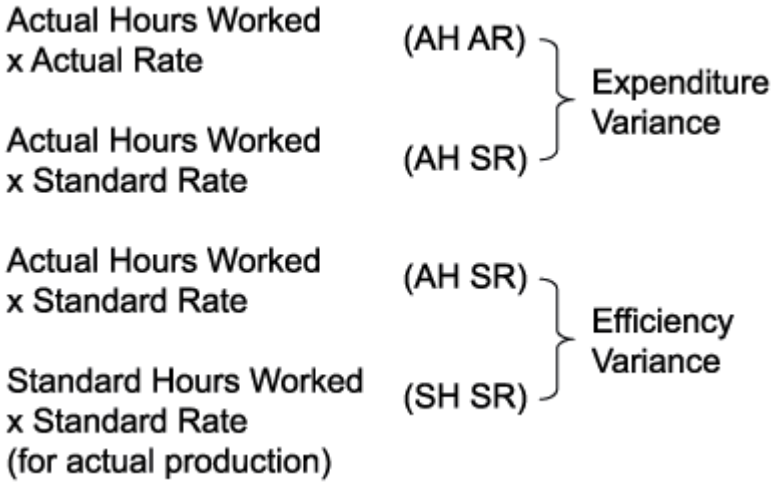
LABOUR VARIANCE



FIXED OVERHEAD VARIANCE



VARIABLE OVERHEAD VARIANCE



PRESENT VALUE TABLE

Periods (*n*)	Interest rates (*r*)									
	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	0705	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

Periods (*n*)	Interest rates (*r*)									
	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	0.079	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

Annuity table

Periods (n)	Interest rates (r)									
	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	15.679	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365
20	18.046	16.351	14.878	13.590	12.462	11.470	10.594	9.818	9.129	8.514

Periods (n)	Interest rates (r)									
	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	7.793	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