

Performance Pillar

P1 – Performance Operations

23 November 2011 – Wednesday Morning Session

Instructions to candidates

You are allowed three hours to answer this question paper.

You are allowed 20 minutes reading time **before the examination begins** during which you should read the question paper and, if you wish, highlight and/or make notes on the question paper. However, you will **not** be allowed, **under any circumstances**, to open the answer book and start writing or use your calculator during this reading time.

You are strongly advised to carefully read ALL the question requirements before attempting the question concerned (that is all parts and/or subquestions).

ALL answers must be written in the answer book. Answers written on the question paper will **not** be submitted for marking.

You should show all workings as marks are available for the method you use.

ALL QUESTIONS ARE COMPULSORY.

Section A comprises 8 sub-questions and is on pages 2 to 5.

Section B comprises 6 sub-questions and is on pages 6 to 8.

Section C comprises 2 questions and is on pages 10 to 13.

Maths tables and formulae are provided on pages 15 to 18.

The list of verbs as published in the syllabus is given for reference on page 19.

Write your candidate number, the paper number and examination subject title in the spaces provided on the front of the answer book. Also write your contact ID and name in the space provided in the right hand margin and seal to close.

Tick the appropriate boxes on the front of the answer book to indicate which questions you have answered.

Performance Operations

SECTION A - 20 MARKS

[You are advised to spend no longer than 36 minutes on this question.]

ANSWER ALL EIGHT SUB-QUESTIONS IN THIS SECTION

Instructions for answering Section A:

The answers to the eight sub-questions in Section A should ALL be written in your answer book.

Your answers should be clearly numbered with the sub-question number then ruled off, so that the markers know which sub-question you are answering. For multiple choice questions, you need only write the sub-question number and the letter of the answer option you have chosen. You do not need to start a new page for each sub-question.

For sub-questions **1.6** to **1.8** you should show your workings as marks are available for the method you use to answer these sub-questions.

Question One

1.1	A decision maker who makes decisions using the maximin criterion would be classified
	as:

- A Risk averse
- B Risk seeking
- C Risk neutral
- **D** Risk spreading

(2 marks)

- 1.2 A flexible budget is a budget that is
- A set prior to the control period and not subsequently changed in response to changes in activity, costs or revenues
- **B** continuously updated by adding a further accounting period when the earliest accounting period has expired
- **C** changed in response to changes in the level of activity
- D changed in response to changes in costs

(2 marks)

1.3 NG is deciding which of four potential venues should be used to stage an entertainment event. Demand for the event may be low, medium or high depending on weather conditions on the day. The management accountant has estimated the contribution that would be earned for each of the possible outcomes and has produced the following regret matrix:

		Regret Matrix		
Venue	Ayefield \$	Beefield \$	Ceefield \$	Deefield \$
Demand				
Low	0	200,000	300,000	450,000
Medium	330,000	110,000	0	150,000
High	810,000	590,000	480,000	0

If the company applies the minimax regret criterion the venue chosen would be

- A Ayefield
- **B** Beefield
- **C** Ceefield
- **D** Deefield

(2 marks)

Section A continues on the next page

The following data are given for sub-questions 1.4 and 1.5 below

JD is a retailer of storage boxes. Annual demand is 39,000 units spread evenly throughout the year. Ordering costs are \$100 per order and the cost of holding one storage box in inventory for one year is \$1.60. It takes two weeks for an order to be delivered to JD's premises.

1.4	The economic order quantity (EOQ) for the storage boxes is	
Α	1,746 units	
В	2,208 units	
С	2,793 units	
D	1,248 units	(2 marks)
1.5	The re-order level that would ensure that JD never runs out of inventory of st boxes is	torage
Α	1,560 units	
В	4,416 units	
С	3,492 units	
D	1,500 units	(2 marks)

1.6 TM's customers all pay their invoices at the end of an agreed 30 day credit period. In an attempt to improve cash flow, TM is considering offering all customers a 2.0% discount for payment within 7 days.

Required:

Calculate, to the nearest 0.1%, the effective annual interest rate to TM of offering the discount. You should assume a 365 day year and use a compound interest methodology.

(3 marks)

1.7 PJ is considering building a warehouse on a piece of land which will be leased at an annual cost of \$4,000 in perpetuity. The lease payments will be made annually in advance.

PJ has a cost of capital of 12% per annum.

Required:

Calculate the present value of the lease payments.

(3 marks)

1.8 A company has budgeted to produce 5,000 units of Product B per month. The opening and closing inventories of Product B for next month are budgeted to be 400 units and 900 units respectively. The budgeted selling price and variable production costs per unit for Product B are as follows:

Selling price	20.00
Direct costs	6.00
Variable production overhead costs	3.50

Total budgeted fixed production overheads are \$29,500 per month.

The company absorbs fixed production overheads on the basis of the budgeted number of units produced. The budgeted profit for Product B for next month, using absorption costing, is \$20,700.

Required:

- (i) **Prepare** a marginal costing statement which shows the budgeted profit for Product B for next month.
- (ii) **Explain,** using appropriate calculations, why there is a difference between the profit figures for the month using marginal costing and using absorption costing.

(4 marks)

(Total for Section A = 20 marks)

Reminder

All answers to Section A must be written in your answer book.

Answers to Section A written on the question paper will **not** be submitted for marking.

End of Section A. Section B begins on page 6

SECTION B - 30 MARKS

[You are advised to spend no longer than 9 minutes on each sub-question in this section.]

ANSWER ALL SIX SUB-QUESTIONS. YOU SHOULD SHOW YOUR WORKINGS AS MARKS ARE AVAILABLE FOR THE METHOD YOU USE.

Question Two

(a) CH is a building supplies company that sells products to trade and private customers.

Budget data for each of the six months to March are given below:

	Oct	Nov	Dec	Jan	Feb	March
	\$000	\$000	\$000	\$000	\$000	\$000
Credit sales	250	250	250	260	260	280
Cash sales	60	60	65	75	80	90
Credit purchases	170	180	180	200	200	200
Other operating costs (excluding depreciation)	90	90	90	122	123	123

80% of the value of credit sales is received in the month after sale, 10% two months after sale and 8% three months after sale. The balance is written off as a bad debt.

75% of the value of credit purchases is paid in the month after purchase and the remaining 25% is paid two months after purchase.

All other operating costs are paid in the month they are incurred.

CH has placed an order for four new forklift trucks that will cost \$25,000 each. The scheduled payment date is in February.

The cash balance at 1 January is estimated to be \$15,000.

Required:

Prepare a cash budget for each of the THREE months of January, February and March.

(5 marks)

(b) GT is considering building a restaurant in a new retail park.

It can build either a small restaurant or a large restaurant. Since there are strict local planning regulations, once GT has committed to the size of restaurant it cannot be extended later.

Past experience suggests that there is a 60% chance that demand will be high and a 40% chance that demand will be low. Estimates of the net present values of the future cash flows for GT associated with each size of restaurant are as follows:

	Demand		
Size of restaurant	Low	High	
	\$	\$	
Small	800,000	1,200,000	
Large	(1,000,000)	2,000,000	

Required:

(i)	Demonstrate,	, using a	decision tree,	which cours	e of action G	Γ should pursue.
-----	--------------	-----------	----------------	-------------	---------------	-------------------------

(3 marks)

(ii) GT could commission a market research survey that will give an accurate prediction of the level of demand.

Required:

Calculate the maximum price that GT should pay for the market research survey.

(2 marks)

(Total for sub-question (b) = 5 marks)

(c) **Discuss** TWO sources of information that a company could use when setting credit limits for customers.

(5 marks)

(d) **Explain** THREE benefits that a company could gain from using environmental costing.

(5 marks)

(e) A company is planning to launch a new product. The price at which it can sell the product will be determined by the number of other entrants into the market. The possible selling prices and variable costs and their respective associated probabilities are as follows:

Selling p	orice per unit	Variable	cost per unit
\$	Probability	\$	Probability
80	0-25	40	0.20
100	0-30	60	0.55
120	0.45	80	0.25

Selling price and variable cost per unit are independent of each other.

Required:

(i) **Calculate** the probability of the contribution being greater than \$39 per unit.

(3 marks)

(ii) Calculate the expected value of the contribution per unit.

(2 marks)

(Total for sub-question (e) = 5 marks)

(f) **Explain** THREE benefits that organisations gain from using budgetary planning and control systems.

(5 marks)

(Total for Section B = 30 marks)

End of section B. Section C begins on page 10

This page is blank

SECTION C - 50 MARKS

[You are advised to spend no longer than 45 minutes on each question in this section.]

ANSWER *BOTH* QUESTIONS IN THIS SECTION. EACH QUESTION IS WORTH 25 MARKS. YOU SHOULD SHOW YOUR WORKINGS AS MARKS ARE AVAILABLE FOR THE METHOD YOU USE.

Question Three

TP makes wedding cakes that are sold to specialist retail outlets which decorate the cakes according to the customers' specific requirements. The standard cost per unit of its most popular cake is as follows:

		\$
Direct material:		
Ingredient A	4 kg at \$25 per kg	100
Ingredient B	3 kg at \$22 per kg	66
Ingredient C	2 kg at \$11.50 per kg	23
Direct labour	3 hours at \$12 per hour	36
Variable overhead	3 hours at \$8 per hour	24
Standard cost		<u>249</u>

The budgeted production for the period was 10,000 units.

Actual results for the period were as follows:

Production (units)		9,000 \$
Direct material:		
Ingredient A	35,000 kg	910,000
Ingredient B	28,000 kg	630,000
Ingredient C	27,000 kg	296,000
Direct labour	30,000 hours	385,000
Variable overhead		230,000

The general market prices at the time of purchase for Ingredient A and Ingredient B were \$23 per kg and \$20 per kg respectively.

TP operates a JIT purchasing system for ingredients and a JIT production system; therefore there was no inventory during the period.

Required:

(a) Prepare a statement which reconciles the flexed budget material cost and the actual material cost. Your statement should include the material price planning variances, and the operational variances including material price, material mix and material yield.

(12 marks)

(b) **Discuss** the usefulness of the planning and operational variances calculated in part (a) for TP's management.

(5 marks)

The budgeted selling price for the product is \$400 per unit. Budgeted sales volume for the period was 10,000 units. Actual results for the period were as follows:

Sales volume 9,000 units Sales revenue \$3,456,000

Required:

(C) Calculate the total sales price variance and the total sales volume contribution variance.

(4 marks)

(d) **Explain** the benefits that TP should gain from operating a JIT purchasing system for materials.

(4 marks)

(Total for Question Three = 25 marks)

Section C continues on the next page

Question Four

GR is an outsourcing company that provides call centre services to a range of clients. As a result of technical advances in telecommunication equipment, the company's existing telephone system is out-dated and inefficient and needs to be replaced. A technical consultant, hired at a cost of \$80,000, has prepared a report outlining two possible replacement systems. The details of each system are as follows:

	System 1	System 2
Initial investment	\$600,000	\$800,000
Estimated useful life Residual value	3 years \$60,000	5 years \$50,000
Contribution per annum	\$580,000	\$600,000
Fixed maintenance costs per annum	\$20,000	\$40,000
Other fixed operating costs per annum	\$360,000	\$305,000

The maintenance costs are payable annually in advance. All other cash flows apart from the initial investment should be assumed to occur at the end of each year.

Depreciation has been calculated using the straight line method and has been included in other fixed operating costs.

The company uses a cost of capital of 12% per annum to evaluate projects of this type.

Required:

(a) **Prioritise** the two systems using an annualised equivalent approach. You should ignore taxation and inflation. Your workings should be shown in \$000.

(12 marks)

(b)

(i) **Explain** the purpose of sensitivity analysis in investment appraisal.

(4 marks)

(ii) **Calculate** the sensitivity of your recommendation in part (a) to changes in the contribution generated by System 1.

(4 marks)

The company's financial director has provided the following taxation information:

- Tax depreciation: 25% of the reducing balance per annum, with a balancing adjustment in the year of disposal.
- Taxation rate: 30% of taxable profits. Half of the tax is payable in the year in which it arises, the balance is paid in the following year.

Red	quired:
(c)	Calculate, for System 2, the tax depreciation and the resulting tax cash flows for each year. Your workings should be shown in \$000. (5 marks)
	(Total for Question Four = 25 marks)
	(Total for Section C = 50 marks)

End of question paper
Maths tables and formulae are on pages 15 to 18

This page is blank

PRESENT VALUE TABLE

Present value of \$1, that is $(1+r)^{-n}$ where r = interest rate; n = number of periods until payment or receipt.

Periods	Interest rates (r)									
(n)	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

Periods					Interest	t rates (r)				
(n)	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

CUMULATIVE PRESENT VALUE TABLE

Cumulative present value of \$1 per annum, Receivable or Payable at the end of each year for n years $\frac{1-(1+r)^{-n}}{r}$

Periods					Interest	rates (r)				
(n)	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					Interes	t rates (r)				
(n)	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

FORMULAE

PROBABILITY

$$A \cup B = A$$
 or B .

$$A \cap B = A$$
 and B (overlap).

$$P(B \mid A)$$
 = probability of B , **given** A .

Rules of Addition

$$P(A \cup B) = P(A) + P(B)$$

If A and B are mutually exclusive:
$$P(A \cup B) = P(A) + P(B)$$
If A and B are not mutually exclusive:
$$P(A \cup B) = P(A) + P(B) - P(A \cap B)$$

Rules of Multiplication

$$P(A \cap B) = P(A) * P(B)$$

$$P(A \cap B) = P(A) * P(B)$$

$$P(A \cap B) = P(A) * P(B \mid A)$$

$$E(X) = \sum \text{(probability * payoff)}$$

DESCRIPTIVE STATISTICS

Arithmetic Mean

$$\overline{x} = \frac{\sum x}{n}$$
 $\overline{x} = \frac{\sum fx}{\sum f}$ (frequency distribution)

Standard Deviation

$$SD = \sqrt{\frac{\sum (x - \overline{x})^2}{n}} \qquad SD = \sqrt{\frac{\sum fx^2}{\sum f} - \overline{x}^2} \quad \text{(frequency distribution)}$$

INDEX NUMBERS

Price relative = $100 * P_1/P_0$

Quantity relative = $100 * Q_1/Q_0$

Price:

$$\frac{\sum w * \left(\frac{P_1}{P_0}\right)}{\sum w} \times 100$$

Quantity:

$$\frac{\sum w * \left(\frac{Q_1}{Q_o}\right)}{\sum w} \times 100$$

TIME SERIES

Additive Model

Multiplicative Model

FINANCIAL MATHEMATICS

Compound Interest (Values and Sums)

Future Value S, of a sum of X, invested for n periods, compounded at r% interest

$$S = X[1 + r]^n$$

Annuity

Present value of an annuity of \$1 per annum receivable or payable for *n* years, commencing in one year, discounted at *r*% per annum:

$$PV = \frac{1}{r} \left[1 - \frac{1}{\left[1 + r \right]^n} \right]$$

Perpetuity

Present value of \$1 per annum, payable or receivable in perpetuity, commencing in one year, discounted at *r*% per annum:

$$PV = \frac{1}{r}$$

LEARNING CURVE

$$Y_x = aX^b$$

where:

 Y_x = the cumulative average time per unit to produce X units;

a = the time required to produce the first unit of output;

X = the cumulative number of units;

b =the index of learning.

The exponent b is defined as the log of the learning curve improvement rate divided by log 2.

INVENTORY MANAGEMENT

Economic Order Quantity

$$EOQ = \sqrt{\frac{2C_oD}{C_b}}$$

where: C_o = cost of placing an order

C_h = cost of holding one unit in inventory for one year

D = annual demand

LIST OF VERBS USED IN THE QUESTION REQUIREMENTS

A list of the learning objectives and verbs that appear in the syllabus and in the question requirements for each question in this paper.

It is important that you answer the question according to the definition of the verb.

LEARNING OBJECTIVE	VERBS USED	DEFINITION				
Level 1 - KNOWLEDGE						
What you are expected to know.	List	Make a list of				
•	State	Express, fully or clearly, the details/facts of				
	Define	Give the exact meaning of				
Level 2 - COMPREHENSION						
What you are expected to understand.	Describe	Communicate the key features				
,	Distinguish	Highlight the differences between				
	Explain	Make clear or intelligible/State the meaning or				
	·	purpose of				
	Identify	Recognise, establish or select after				
	•	consideration				
	Illustrate	Use an example to describe or explain				
		something				
Level 3 - APPLICATION						
How you are expected to apply your knowledge.	Apply	Put to practical use				
	Calculate	Ascertain or reckon mathematically				
	Demonstrate	Prove with certainty or to exhibit by				
		practical means				
	Prepare	Make or get ready for use				
	Reconcile	Make or prove consistent/compatible				
	Solve	Find an answer to				
	Tabulate	Arrange in a table				
Level 4 - ANALYSIS						
How are you expected to analyse the detail of	Analyse	Examine in detail the structure of				
what you have learned.	Categorise	Place into a defined class or division				
	Compare and contrast	Show the similarities and/or differences				
	•	between				
	Construct	Build up or compile				
	Discuss	Examine in detail by argument				
	Interpret	Translate into intelligible or familiar terms				
	Prioritise	Place in order of priority or sequence for action				
	Produce	Create or bring into existence				
Level 5 - EVALUATION						
How are you expected to use your learning to	Advise	Counsel, inform or notify				
evaluate, make decisions or recommendations.	Evaluate	Appraise or assess the value of				
evaluate, make decisions of recommendations.						

Performance Pillar

Operational Level Paper

P1 – Performance Operations

November 2011

Wednesday Morning Session