POLITEKNIK
MALAYSIA

BAHAGIAN PEPERIKSAAN DAN PENILAIAN
JABATAN PENDIDIKAN POLITEKNIK
KEMENTERIAN PENDIDIKAN TINGGI

JABATAN PERDAGANGAN

PEPERIKSAAN AKHIR

SESI JUN 2016

APA8044: PERFORMANCE MANAGEMENT

TARIKH : 24 OKTOBER 2016
MASA : 08.30 AM - 11.30 AM (3 JAM)

Kertas ini mengandungi **SEBELAS (11)** halaman bercetak.
Esei (5 soalan)

Dokumen sokongan yang disertakan : Formula

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIARAHKAN

(CLO yang tertera hanya sebagai rujukan)

ESSAY : 100 MARKS

INSTRUCTION:
This section consists of **FIVE (5)** essay questions. Answer **ALL** the questions.

QUESTION 1

S Bhd makes two types of solar panels at its manufacturing plant: large panels for commercial customers and small panels for domestic customers. All panels are produced using the same materials, machinery and a skilled labour force. Production takes place for five days per week, from 8 am until 8 pm (12 hours), 50 weeks of the year. Each panel has to be cut, moulded and then assembled using a cutting machine (Machine C), a moulding machine (Machine M) and an assembly machine (Machine A).

Due to poor productivity levels, late orders and declining profits over recent years, the finance director has suggested the introduction of throughput accounting within the organisation, together with a 'Just in Time' system of production. Material costs and selling prices for each type of panel are shown below:

	Large panels	Small panels
	RM	RM
Selling price per unit	12,600	3,512
Material costs per unit	4,300	1,160

Total factory costs, which include the cost of labour and all factory overheads, are RM12 million each year at the plant.

The following information is available for Machine M, which has been identified as the bottleneck resource:

	Large panels	Small panels
	Hours per unit	Hours per unit
Machine M	1·4	0·6

There is currently plenty of spare capacity on Machines C and A. Maximum annual demand for large panels and small panels is 1,800 units and 1,700 units respectively.

Required:

CLO1
C3

(a)   Calculate the throughput accounting ratio for large panels and for small panels and explain what they indicate to S Bhd about production of large and small panels.

[9 marks]

CLO1
C3

(b)   Calculate the optimum production mix and maximum profit of S Bhd for the following year(using throughput accounting).

[5 marks]

CLO1
C4

(c)   Discuss THREE ways in which S Bhd could increase its production capacity and hence increase throughput in the following year without making any additional investment machinery.

[6 marks]

[20 marks]

QUESTION 2

Orange Jus Sdn Bhd is a large garden equipment supplier with retail stores throughout Toolland. Many of the products it sells are bought from outside suppliers but some are currently manufactured by Orange Jus's own manufacturing division 'Paku'.

The prices (a transfer price) that Paku charges to the retail stores are set by head office and have been the subject of some discussion. The current policy is for Paku to calculate the total variable cost of production and delivery and add 30% for profit. Paku argues that all costs should be taken into consideration, offering to reduce the mark-up on costs to 10% in this case. The retail stores are unhappy with the current pricing policy arguing that it results in prices that are often higher than comparable products available on the market.

Paku has provided the following information to enable a price comparison to be made of the two possible pricing policies for one of its products, that is garden shears.

Details of garden shears:
Steel: the shears have 0.4kg of high quality steel in the final product. The manufacturing process loses 5% of all steel put in. Steel costs RM4,000 per tonne (1 tonne = 1,000kg)

Other materials: Other materials are bought in and have a list price of RM3 per kg although Orange Jus secures a 10% volume discount on all purchases. The shears require 0.1kg of these materials.

The labour time to produce shears is 0.25 hours per unit and labour costs RM10 per hour.

Variable overheads are absorbed at the rate of 150% of labour rates and fixed overheads are 80% of the variable overheads.

Delivery is made by an outsourced distributor that charges Paku RM0.50 per garden shear for delivery.

Required:

CLO1
C3

(a)   Calculate the price that Paku would charge for the garden shears under the existing policy of variable cost plus 30%.

[6 marks]

CLO1
C3

(b)   Calculate the increase or decrease in price if the pricing policy switched to total cost plus 10%.

[4 marks]

CLO1
C4

(c)   Discuss whether including or not including fixed costs in a transfer price policy.

[4 marks]

CLO1
C4

(d)   Discuss whether the retail stores should be allowed to buy from outside suppliers if the prices are cheaper than those charged by Paku.

[6 marks]

[20 marks]

QUESTION 3

Air Indah is a local government organisation responsible for waste collection from domestic households. The new management accountant of Air Indah has decided to introduce some new forecasting techniques to improve the accuracy of the budgeting. The next budget to be produced is for the year ended 31 December 2017.

Waste is collected by the tonne (T). The number of tonnes collected each year has been rising and by using time series analysis the new management accountant has produced the following relationship between the tonnes collected (T) and the time period in question Q (where Q is a quarter number. So Q = 1 represents quarter 1 in 2016 and Q = 2 represents quarter 2 in 2016 and so on)

$$T = 2,000 + 25Q$$

Each quarter is subject to some seasonal variation with more waste being collected in the middle quarters of each year. The adjustments required to the underlying trend prediction are:

Quarter	Tonnes
1	-200
2	+250
3	+150
4	-100

Once T is predicted the new management accountant hopes to use the values to predict the variable operating costs and fixed operating costs that Air Indah will be subjected to in 2017. Below is the operating cost data for 2016:

Volume of waste	Total operating cost in 2016 (fixed + variable)
Tonnes	RM '000
2,100	950
2,500	1,010
2,400	1,010
2,300	990

Inflation on the operating cost is expected to be 5% between 2016 and 2017.

The regression formula is shown on the formula sheet.

Required:

CLO2
C3

(a) Calculate the tonnes of waste to be expected in the calendar year 2017.

[4 marks]

CLO2
C3

(b) Calculate the variable operating cost and fixed operating cost to be expected in 2017 by using regression analysis on the 2016 data and allowing for inflation as appropriate.

[10 marks]

CLO2
C4

(c) Many local government organisations operate incremental budgeting as one of their main budgeting techniques. They take a previous period's actual spend, adjust for any known changes to operations and then add a percentage for expected inflation in order to set the next period's budget.

Describe two advantages and two disadvantages of a local government organisation funded by taxpayer's money using incremental budgeting as its main budgeting technique.

[6 marks]

[20 marks]

QUESTION 4

C Bhd is a company which manufactures and sells three types of chocolates in packets. One of them is called 'Guono' and contains three types of sweeteners: honey, sugar and syrup. The standard materials usage and cost for one unit of 'Guono' (one packet) is as follows:

		RM
Honey	20 grams at RM0·02 per gram	0·40
Sugar	15 grams at RM0·03 per gram	0·45
Syrup	10 grams at RM0·025 per gram	0·25
		1.10

In the three months ended 30 November 2015, C Bhd produced 101,000 units of 'Guono' using 2,200 kg of honey, 1,400 kg of sugar and 1,050 kg of syrup. Note: there are 1,000 grams in a kilogram (kg).

C Bhd has used activity-based costing to allocate its overheads for several years. One of its main overheads is machine set-up costs. In the three months ended 30 November 2015, the following information was available in relation to set-up costs:

Budget

Total number of units produced	264,000
Total number of set ups	330
Total set-up costs	RM52,800

Actual

Total number of units produced	320,000
Total number of set ups	360
Total set-up costs	RM60,000

Required:

(a)   Calculate the following variances for materials in Guono:

    (i)   Total materials usage variance;

[4 marks]

    (ii)   Total materials mix variance;

[4 marks]

    (iii) Total materials quantity (yield) variance.

[4 marks]

(b)   Calculate the following activity-based variances in relation to the set-up cost of the machines:

    (i)   The expenditure variance;

[3 marks]

    (ii)   The efficiency variance.

[3 marks]

(c)   Briefly outline two possible causes of labour cost variance.

[2 marks]

[20 marks]

QUESTION 5

CLO3
C4

(a)   Sof Tun Sdn Bhd is an electric company specializing in manufacturing of home audio equipment. Historically, the company has used solely financial performance measure to assess the performance of the company as a whole. The company's Managing Director has recently heard of the 'balanced scorecard approach' and is excited to learn more.

Required:

Describe the balanced scorecard approach to performance measurement.

[10 marks]

CLO3
C4

(b)   Compare and contrast the use of residual income and return on investment in divisional performance measurement, stating the advantages and disadvantages of each.

[10 marks]

[20 marks]

SOALAN TAMAT