SULIT

POLITEKNIK MALAYSIA

BAHAGIAN PEPERIKSAAN DAN PENILAIAN
JABATAN PENDIDIKAN POLITEKNIK
KEMENTERIAN PENDIDIKAN TINGGI

JABATAN PERDAGANGAN

PEPERIKSAAN AKHIR

SESI JUN 2017

APA8044 : PERFORMANCE MANAGEMENT

TARIKH : 27 OKTOBER 2017
MASA : 8.30 PAGI – 11.45 PAGI (3 JAM 15 MINIT)

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

Dokumen sokongan yang disertakan : Formula

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIARAHKAN

(CLO yang tertera hanya sebagai rujukan)

INSTRUCTION:

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

QUESTION 1

Protin Bhd is a mini gadget manufacturer, is in a process of introducing a new product to the market and has undertaken market research to find out about customers' views on the value of the product and also to make a comparison with competitors' products. The results of this research have been used to establish a target selling price of RM70.

Cost estimates have been prepared based on the proposed product specification.

Manufacturing costs	*RM*
Direct material	3.75
Direct Labour	28.12
Direct machinery costs	1.31
Ordering and receiving	0.27
Quality assurance	5.38
Non- Manufacturing costs	
Marketing	9.54
Distribution	3.80
After-sales service	1.52

The target profit margin for the gadget is 30% of the proposed selling price

Required:

CLO1 C3 (a) Calculate the projected cost of the new product

(5 marks)

CLO1 C3 (b) Calculate the target cost gap

(5 marks)

CLO1 C2 (c) Explain 5 specific actions could be taken by the company to close the target cost gap

(10 marks)

(20 marks)

QUESTION 2

Putih Qu Sdn Bhd is a manufacturing company producing a variety of food paste and ketchup. The food paste and ketchup are sold to a variety of retailers. Each of the products has a variety of ingredients, with the key ones being tomato, sweet potato and soya bean. Six months ago, floods hit the plants of the above-mentioned basic ingredients causing a huge reduction in the availability of them. Putih Qu Sdn Bhd had to dramatically reduce production and make part of its workforce, which it had trained over a number of years, redundant.

The company now wants to increase production again by ensuring that it uses the limited ingredients available to maximise profits by setting the optimum mix of paste and ketchup. Due to the redundancies made earlier in the year, supply of skilled labour is now limited in the short term to 9,600 minutes per week, although unskilled labour is unlimited. The purchasing manager is confident that they can obtain 5,000 grams of tomato and 1,600 grams of sweet potato per week. All other ingredients are unlimited. The following information is available for the two products:

	Paste	**Ketchup**
Materials required:		
- tomato (at RM2.20 per gram)	3 grams	2 grams
- sweet potato (at RM0.80 per gram)	1 gram	0.5 grams
- soya bean (at RM1.40 per gram)	4 grams	2 grams
Labour required:		
- skilled (RM12 per hour)	4 minutes	5 minutes
- unskilled (RM8 per hour)	3 minutes	1.5 minutes

Each bottle of paste sold generates a contribution of RM9 per unit, whilst each bottle of ketchup generates a contribution of RM8 per unit. The maximum demand for ketchup is 2,000 bottles per week, although demand for ketchup is unlimited. Fixed costs total RM3,600 per week. The company does not keep an inventory although if a product is partially complete at the end of one week, its production will be completed in the following week.

Required:

CLO1 C2 (a) State the available constraints in term of inequations

(6 marks)

CLO1 C3 (b) Draw a graph to find the optimum number of each product that Putih Qu Sdn Bhd should produce per week in maximising the profit.

(8 marks)

CLO1 C4 (c) Calculate the highest profit from the possible points shown in the above graph

(6 marks)

(20 marks)

QUESTION 3

Mesra Hotel operates a chain of upmarket hotels in Malaysia. Each manager is responsible for producing an annual budget, based on targets set by Head Office.

According to last year's budget, the company had hoped to turn an expected 10% rise in total revenue into a 18% increase in hotel profits.

At the year end it was found that hotel profits had increased only by 12% with the primary reason for the shortfall appearing to be excessive spending.

Required:

CLO2 C4 (a) Explain why zero based budgeting might be a useful tool for PC Bhd. (8 marks)

CLO2 C2 (b) Describe the steps needed to be undertaken in order to implement a zero based budgeting system (8 marks)

CLO2 C4 (c) Explain how the use of zero based budgeting can motivate employees (4 marks)

(20 marks)

QUESTION 4

Chokolato Sdn Bhd makes high quality, hand-made chocolate truffles which it sells to a local retailer. All chocolates are made in batches of 16, to fit the standard boxes supplied by the retailer. The standard cost of labour for each batch is RM6·00 and the standard labour time for each batch is half an hour. In November, Chokolato Sdn Bhd had budgeted production of 24 000 batches; actual production was only 20 500 batches. 12 000 labour hours were used to complete the work and there was no idle time. All workers were paid for their actual hours worked. The actual total labour cost for November was RM136 800. The production manager at Chokolato Sdn Bhd has no input into the budgeting process.

At the end of October, the managing director decided to hold a meeting and offer staff the choice of either accepting a 5% pay cut or facing a certain number of redundancies. All staff subsequently agreed to accept the 5% pay cut with immediate effect.

At the same time, the retailer requested that the truffles be made slightly softer. This change was implemented immediately and made the chocolates more difficult to shape. When recipe changes such as these are made, it takes time before the workers become used to working with the new ingredient mix, making the process 20% slower for at least the first month of the new operation.

The standard costing system is only updated once a year in June and no changes are ever made to the system outside of this.

Required:

CLO2 C3 (a) Calculate the total labour rate and total labour efficiency variances for November, based on the standard cost provided above.

(4 marks)

CLO2 C4 (b) Analyse the total labour rate and total labour efficiency variances into component parts for planning and operational variances in as much detail as the information allows.

(8 marks)

CLO2 C4 (c) Assess the performance of the production manager for the month of November.

(8 marks)

(20 marks)

QUESTION 5

Merdu Production Bhd, a client of your firm, has two divisions. The compact Disc Division ('CD') and the portable Stereo division ("PS").

Budgets for the coming year have been prepared by the managers of each division and agreed by the head office, as follows:

	CD (RM)	PS (RM)
Investment in fixed assets	840,000	700,000
Revenue	420,000	210,000
Operating expenses	210,000	140,000
Profit	210,000	70,000

A new investment opportunity has arisen. It could be adopted by either division. The initial investment in fixed assets will be RM 140,000 and the expected annual operating profits from this investment are RM 28,000.

Merdu Production Bhd presently uses Return on Investment (ROI) as a criterion for evaluation of divisional performance, but the finance director is aware that a close competitor applies the Residual Income (RI) method, using a required rate of 18% per annum.

Required:

CLO3 C4 (a) Calculate return on investment (ROI) for each division.

(7 marks)

CLO3 C4 (b) Calculate residual income (RI) for each division.

(7 marks)

CLO3 C3 (c) Explain the acceptability of the new investment opportunity from the viewpoint of each divisional manager and of Merdu Productions Bhd as an entity, using both ROI and RI methods.

(6 marks)

(20 marks)

-END OF QUESTIONS-

Formula Sheet

Learning curve

$y = ax^b$

Where y = cumulative average time per unit to produce x units

a = the time taken for the first unit of output

x = the cumulative number of units produced

b = the index of learning (log LR*log 2)

LR = the learning rate as a decimal

Regression analysis

$y = a + bx$

$$b = \frac{n\sum xy - \sum x\sum y}{n\sum x^2-(\sum x)^2}$$

$$a = \frac{\sum y}{n} - \frac{b\sum x}{n}$$

$$r = \frac{n\sum xy - \sum x\sum y}{\sqrt{(n\sum x^2 - (\sum x)^2)(n\sum y^2 - (\sum y)^2)}}$$

Demand curve

$P = a - bQ$

$$b = \frac{\text{change in price}}{\text{change in quantity}}$$

a = price when Q = 0

$MR = a - 2bQ$