
UNIVERSITI SAINS MALAYSIA

Second Semester Examination
Academic Session 2007/2008

April 2008

ACW170/ACW270 - Management Accounting I
[Perakaunan Pengurusan I]

Duration: 3 hours
[Masa: 3 jam]

Please check that this examination paper consists of **ELEVEN** pages of printed material before you begin the examination.

*[Sila pastikan bahawa kertas peperiksaan ini mengandungi **SEBELAS** muka surat yang bercetak sebelum anda memulakan peperiksaan].*

Instructions: Answer **ALL** questions.

Arahan: Jawab **SEMUA** soalan].

Question 1 (30 marks)

Ehsan Toy Company is a manufacturer a plastic swimming pool at its Melaka Plant. Its June contribution format income statement is as below:

	<u>Budgeted</u>	<u>Actual</u>
Sales (15,000 pools)	RM 450,000	RM 450,000
Variable expenses:		
Variable cost of goods sold*	180,000	196,290
Variable selling expenses	20,000	20,000
Total variable expenses	<u>200,000</u>	<u>216,290</u>
Contribution margin	<u>250,000</u>	<u>233,710</u>
Fixed expenses:		
Manufacturing overhead	130,000	130,000
Selling and administrative	84,000	84,000
Total fixed expenses	<u>214,000</u>	<u>214,000</u>
Net operating income	<u>RM36,000</u>	<u>RM19,710</u>

* Variable cost of goods sold contains direct materials, direct labor, and variable manufacturing overhead.

The standard cost per swimming pool is as follows:

	<u>Standard Quantity or Hours</u>	<u>Standard Price or Rate</u>	<u>Standard Cost</u>
Direct materials	3.0 kg	RM2 per kg	RM6.00
Direct labor	0.8 hours	RM6 per hour	4.80
Variable manufacturing overhead	0.4 hours*	RM3 per hour	1.20
Total standard variable cost			<u>RM12.00</u>

* Variable manufacturing overhead is based on machine-hours.

The Plant during June produced 15,000 pools and incurred the following costs:

- (1) Purchased 60,000 kg of materials at a cost of RM1.95 per kg.
- (2) Used 49,200 kg of material in production. (Finished goods and work in progress inventories are insignificant and can be ignored.)
- (3) Worked 11,800 direct labor- hours at a cost of RM7.00 per hour.
- (4) Incurred variable manufacturing overhead cost totaling RM18,290 for the month. A total of 5,900 machine-hours were recorded.

It is the company's policy to close all variances to cost of goods sold on a monthly basis.

Required:

- (i) Compute the following variances for June:
- (a) Direct materials price and quantity variances. [5 marks]
- (b) Direct labor rate and efficiency variances. [5 marks]
- (c) Variable overhead spending and efficiency variances. [5 marks]
- (ii) Summarize the variances that you compute in (1) above by showing the net overall favorable or unfavorable variance for the month. What impact did this figure have on the company's income statement? [7 marks]
- (iii) Pick out the two most significant variances that you compute in (1) above. Explain the possible causes of these variances. [8 marks]

Soalan 1 (30 markah)

Syarikat Permainan Ehsan mengeluarkan kolam renang plastic di kilangnya di Melaka. Format sumbangan penyata pendapatan syarikat bagi bulan Jun adalah seperti berikut :

	<u>Belanjawan</u>	<u>Sebenar</u>
Jualan (15,000 kolam)	RM 450,000	RM 450,000
Perbelanjaan berubah:		
Kos berubah barangan yang dijual*	180,000	196,290
Perbelanjaan jualan berubah	20,000	20,000
Jumlah perbelanjaan berubah	<u>200,000</u>	<u>216,290</u>
Margin sumbangan	<u>250,000</u>	<u>233,710</u>
Perbelanjaan tetap:		
Overhead kilang	130,000	130,000
Jualan dan pentadbiran	84,000	84,000
Jumlah perbelanjaan tetap	<u>214,000</u>	<u>214,000</u>
Net pendapatan operasi	<u>RM36,000</u>	<u>RM19,710</u>

* Kos berubah barangan yang dijual mengandungi bahan langsung, buruh langsung, dan overhead kilang berubah.

Kos piawai bagi satu kolam renang adalah seperti berikut:

	<i>Kuantiti Piawai atau Jam</i>	<i>Harga Piawai atau Kadar</i>	<i>Piawai Kos</i>
<i>Bahan langsung</i>	3.0 kg	RM2 se kg	RM6.00
<i>Buruh langsung</i>	0.8 jam	RM6 se jam	4.80
<i>Overhed kilang berubah</i>	0.4 jam*	RM3 se jam	1.20
<i>Jumlah piawai kos berubah</i>			RM12.00

* *Overhed kilang berubah adalah berdasarkan jam-mesin.*

Semasa bulan Jun kilang tersebut menghasilkan 15,000 kolam dan telah membelanjakan kos seperti berikut:

- (1) *Membeli 60,000 kg bahan pada harga RM1.95 se kg.*
- (2) *Menggunakan 49,200 kg bahan dalam pengeluaran. (Barang siap dan inventori kerja dalam proses adalah tidak signifikan dan boleh diabaikan.)*
- (3) *Telah menggunakan 11,800 jam buruh langsung pada kos RM7.00 se jam.*
- (4) *Membelanjakan kos overhed kilang berubah berjumlah RM18,290 pada bulan tersebut. Keseluruhannya 5,900 jam mesin telah direkodkan.*

Adalah menjadi polisi syarikat untuk menutup semua varians kepada kos barang yang telah dijual pada setiap bulan.

Dikehendaki:

- (i) *Tentukan varians berikut bagi bulan Jun:*
 - (a) *Harga bahan langsung dan varian kuantiti.* [5 markah]
 - (b) *Kadar buruh langsung dan varian kecekapan.* [5 markah]
 - (c) *Perbelanjaan overhed berubah dan varian kecekapan.* [5 markah]
- (ii) *Ringkaskan varians yang telah anda kira di atas (1) dengan menunjukkan keseluruhan bersih varians untung atau tidak menguntungkan bagi bulan ini. Apakah kesan jumlah ini pada penyata pendapatan syarikat?* [7 markah]
- (iii) *Pilih 2 varians paling signifikan yang telah anda kira pada (1) di atas. Jelaskan sebab-sebab yang berkemungkinan menyebabkan varians ini.* [8 markah]

Question 2 (10 marks)

Jerjak Outfitters Company sells recreational equipment. One of the company's products, a small camp stove, sells for RM50 per unit. Variable expenses are RM32 per stove, and fixed expenses associated with the stove total RM108,000 per month.

Required:

- (i) Compute the break-even point in number of stoves and in total sales ringgit.
[2 marks]
- (ii) If the variable expenses per stove increase as a percentage of the selling price, will it result in higher or a lower break-even point? Why? (Assume that the fixed expenses remain unchanged.)
[3 marks]
- (iii) At present, the company is selling 8,000 stoves per month. The sales manager is convinced that a 10% reduction in the selling price would result in a 25% increase in monthly sales of stoves. Prepare two contribution income statements, one under present operating conditions, and one as operations would appear after the proposed changes. Show both total and per unit data on your statements.
[3 marks]
- (iv) Refer to the data in (3) above. How many stoves would have to be sold at the new selling price to yield a minimum net operating income of RM35,000 per month?
[2 marks]

Soalan 2 (10 markah)

Syarikat Jerjak Outfitters menjual barangan rekreasi. Salah satu barangannya, dapur perkhemahan kecil, dijual pada harga RM50 seunit. Perbelanjaan berubah adalah RM32 bagi setiap dapur, dan perbelanjaan tetap yang berkaitan berjumlah RM108,000 setiap bulan.

Dikehendaki:

- (i) Tentukan titik pulang modal dalam jumlah dapur dan dalam ringgit jumlah keseluruhan penjualan.
[2 markah]
- (ii) Jika perbelanjaan berubah setiap dapur meningkat sebagai peratusan daripada harga jualan, adakah ini akan menghasilkan titik pulang modal yang tinggi atau rendah? Kenapa? (Andaikan perbelanjaan tetap tidak berubah.)
[3 markah]

(iii) Pada masa ini, syarikat menjual 8,000 dapur sebulan. Pengurus jualan yakin bahawa pengurangan 10% pada harga jualan akan meningkatkan jualan sebanyak 25% setiap bulan. Sediakan 2 penyata sumbangan pendapatan, satu dibawah keadaan operasi pada masa sekarang, dan satu lagi pada keadaan operasi selepas perubahan yang dicadangkan tadi. Tunjukkan kedua-dua jumlah keseluruhan dan data se unit pada penyata anda.

[3 markah]

(iv) Rujuk pada data dalam (3) di atas. Berapa banyak dapurkah yang harus dijual pada harga yang baru, bagi mendapatkan pendapatan operasi bersih minimum RM35,000 setiap bulan?

[2 markah]

Question 3 (20 marks)

The year-end balances shown on Garuda Company's books are as follows:

	<u>Units</u>	<u>Costs</u>
Work in process, 31 December (labour and overhead 50% complete)	300,000	RM660,960
Finished goods, 31 December	200,000	RM1,009,800

Materials are added to production at the beginning of the manufacturing process, and overhead is applied to each product at the rate of 60% of direct labor cost. There was no finished goods inventory at the beginning of the year. A review of Garuda Company's inventory and cost records has disclosed the following data:

	<u>Units</u>	<u>Costs</u>	
		<u>Materials</u>	<u>Labour</u>
Work in progress, 1 January (labour and overhead 80% complete)	200,000	RM200,000	RM315,000
Started into production	1,000,000		
<u>Cost added during the year:</u>			
Materials cost		RM1,300,000	
Labor cost			RM1,995,000
Units completed during the year	900,000		

The company uses the weighted-average method.

Required:

- (i) Determine the equivalent units and cost per equivalent unit for materials, labour, and overhead for the year. [7 marks]
- (ii) Determine the amount of cost that should be assigned to the ending work in process and finished goods inventories. [5 marks]
- (iii) Prepare the necessary correcting journal entry to adjust the work in process and finished goods inventories to the correct balances as of 31 December. [5 marks]
- (iv) Determine the cost of goods sold for the year assuming there is no under- or overapplied overhead. [3 marks]

Soalan 3 (20 markah)

Baki akhir tahun yang ditunjukkan pada buku Syarikat Garuda adalah seperti berikut:

	<u>Unit</u>	<u>Kos</u>
<i>Kerja dalam proses, 31 Disember (buruh dan overhead 50% siap).....</i>	300,000	RM660,960
<i>Barang siap, 31 Disember.....</i>	200,000	RM1,009,800

Bahan telah ditambah dalam pengeluaran pada permulaan proses pengilangan, dan overhead dikenakan pada setiap produk pada kadar 60% kos buruh langsung. Tidak ada inventori barang siap pada awal tahun. Semakan inventori dan rekod kos Syarikat Garuda telah menzahirkan data berikut:

	<u>Unit</u>	<u>Kos</u>	
		<u>Bahan</u>	<u>Buruh</u>
<i>Kerja dalam proses, 1 Januari (buruh dan overhead 80% siap)</i>	200,000	RM200,000	RM315,000
<i>Dimulakan dalam pengeluaran</i>	1,000,000		
<i>Kos ditambah sepanjang tahun:</i>			
<i>Kos bahan</i>		RM1,300,000	
<i>Kos buruh</i>			RM1,995,000
<i>Unit yang disiapkan sepanjang tahun</i>	900,000		

Syarikat menggunakan kaedah wajaran-purata.

Dikehendaki:

- (i) Tentukan unit nilai sama banyak dan kos setiap unit nilai sama banyak bagi bahan, buruh dan overhead bagi tahun ini.
[7 markah]
- (ii) Tentukan jumlah kos yang sepatutnya ditetapkan pada inventori kerja akhir dalam proses dan inventori barang siap.
[5 markah]
- (iii) Sediakan catatan jurnal pembetulan yang sepatutnya bagi menyesuaikan inventori kerja dalam proses dan inventori barang siap pada baki yang benar, pada 31 Disember.
[5 markah]
- (iv) Tentukan kos barang yang dijual pada tahun ini dengan mengandaikan tiada overhead aplikasi terlebih atau terkurang.
[3 markah]

Question 4 (10 marks)

A company uses an activity-based costing system for internal decision making purposes. The company has four activity cost pools as listed below:

<u>Activity Cost Pool</u>	<u>Activity Measure</u>	<u>Activity Rate</u>
Order size	Number of direct labour-hours	RM16.85 per direct labour-hour
Customer orders	Number of customers orders	RM320.00 per customer order
Product testing	Number of testing hours	RM89.00 per testing hour
Selling	Number of sales calls	RM1,090.00 per sales call

The managing director of the company would like information concerning the cost of a recently completed order for heavy-duty trailer axles. The order required 200 direct labour-hours, 4 hours of product testing, and 2 sales calls.

Required:

Prepare a report showing the overhead cost of the order for the heavy-duty trailer axles according to the activity based costing system. What is the total overhead cost assigned to the order?

[10 marks]

Soalan 4 (10 markah)

Sebuah syarikat menggunakan sistem kos berasaskan aktiviti bagi tujuan pembuatan keputusan dalaman. Syarikat mempunyai empat aktiviti kos bersama seperti yang disenaraikan di bawah:

<u>Kos aktiviti bersama</u>	<u>Pengukuran Aktiviti</u>	<u>Kadar aktiviti</u>
Saiz tempahan	Nombor jam buruh langsung	RM16.85 se jam buruh langsung
Tempahan Pelanggan.....	Nombor tempahan pelanggan	RM320.00 se tempahan pelanggan
Ujian produk	Nombor jam ujian	RM89.00 se jam ujian
Jualan	Nombor panggilan jualan	RM1,090.00 se panggilan jualan

Pengarah Urusan syarikat mahukan maklumat berkenaan kos tempahan gandar treler duti-berat yang telah disiapkan baru-baru ini. Tempahan tersebut memerlukan 200 jam buruh langsung, 4 jam ujian produk, dan 2 panggilan jualan.

Dikehendaki:

Sediakan laporan yang menunjukkan kos overhead gandar treler duti-berat berdasarkan sistem kos berasaskan aktiviti. Apakah jumlah kos overhead yang ditetapkan pada tempahan tersebut?

[10 markah]

Question 5 (30 marks)

MHK Products Bhd. uses a job-order costing system. The company's inventory balances on April 1, the start of its fiscal year, were as follows:

Raw materials	RM32,000
Work in process	RM20,000
Finished goods	RM48,000

During the year, the following transactions were completed:

- (1) Raw materials were purchased on account, RM170,000.
- (2) Raw materials were issued from the store room for use in production, RM180,000 (80% direct and 20% indirect).
- (3) Employee salaries and wages were accrued as follows: direct labour, RM200,000; indirect labour, RM82,000; and selling and administrative salaries, RM90,000.
- (4) Utility costs were incurred in the factory, RM65,000.
- (5) Advertising costs were incurred, RM100,000.
- (6) Prepaid insurance expired during the year, RM20,000 (90% related to factory operations, and 10% related to selling and administrative activities).
- (7) Depreciation was recorded, RM180,000 (85% related to factory assets, and 15% related to selling and administrative assets).

...10/-

- (8) Manufacturing overhead was applied to jobs at the rate of 175% of direct labour cost.
- (9) Goods that cost RM700,000 to manufacture according to their job cost sheets were transferred to the finished goods warehouse.
- (10) Sales for the year totalled RM1,000,000 and were all on account. The total cost to manufacture these goods according to their job cost sheets was RM720,000.

Required:

- (i) Prepare journal entries to record the transactions for the year. [12 marks]
- (ii) Prepare T-accounts for Raw Materials, Work in Process, Finished Goods, Manufacturing Overhead, and Cost of Goods Sold. Post the appropriate parts of your journal entries to these T-accounts. Compute the ending balance in each account. [12 marks]
- (iii) Is Manufacturing Overhead underapplied or overapplied for the year? Prepare a journal entry to close this balance to Costs of Goods Sold. [3 marks]
- (iv) Prepare an income statement for the year. [3 marks]

Soalan 5 (30 markah)

MHK Products Bhd. menggunakan sistem kos tempahan-kerja. Baki inventori syarikat pada 1 April, iaitu permulaan tahun fiskalnya, adalah seperti berikut:

<i>Bahan mentah</i>	<i>RM32,000</i>
<i>Kerja dalam proses</i>	<i>RM20,000</i>
<i>Barang siap</i>	<i>RM48,000</i>

Pada tahun ini, urusniaga berikut telah disiapkan:

- (1) *Bahan mentah dibeli secara kredit, RM170,000.*
- (2) *Bahan mentah dikeluarkan dari bilik stor bagi penggunaan pengeluaran, RM180,000 (80% langsung dan 20% tidak langsung).*
- (3) *Gaji pekerja dan upah bertambah seperti berikut: buruh langsung, RM200,000; buruh tak langsung, RM82,000; dan gaji penjualan dan pentadbiran, RM90,000.*
- (4) *Kos utiliti dibelanjakan dalam kilang, RM65,000.*
- (5) *Kos pemasaran, RM100,000.*
- (6) *Insurans prabayar tamat tempoh sepanjang tahun, RM20,000 (90% berhubung dengan operasi kilang, dan 10% berhubung dengan aktiviti penjualan dan pentadbiran.)*

- (7) *Susut nilai telah direkodkan, RM180,000 (85% berhubung dengan aset kilang, dan 15% berhubung dengan aset penjualan dan pentadbiran.)*
- (8) *Overhed pengilangan di aplikasikan ke atas kerja pada kadar 175% kos buruh langsung.*
- (9) *Barang yang berkos pembuatan RM700,000 berdasarkan helaian kos kerja barangan tersebut dipindahkan ke gudang barang siap.*
- (10) *Jualan keseluruhan pada tahun tersebut berjumlah RM1,000,000 dan kesemuanya dibeli secara kredit. Kos keseluruhan bagi menghasilkan barangan ini berdasarkan helaian kos kerja adalah RM720,000.*

Dikehendaki:

- (i) *Sediakan catatan jurnal bagi merekodkan kesemua urusanniaga pada tahun tersebut.*

[12 markah]
- (ii) *Sediakan akaun-T bagi Bahan Mentah, Kerja Dalam Proses, Barang Siap, Overhed Pembuatan, dan Kos Barang yang Dijual. Poskan kemasukan bahagian jurnal yang sepatutnya ke dalam akaun-T ini. Tentukan baki akhir dalam setiap akaun.*

[12 markah]
- (iii) *Adakah Overhed Pembuatan aplikasi terlebih atau terkurang pada tahun tersebut? Sediakan catatan jurnal bagi menutup baki ini ke Kos Barang yang Dijual.*

[3 markah]
- (iv) *Sediakan penyata pendapatan pada tahun tersebut.*

[3 markah]