**Eastern University, Sri Lanka**

**Faculty of Commerce and Management**

**Third Year First Semester Examination in Bachelor of Commerce**

**(Specialization in Accounting and Finance) 2016/2017 (October 2018)**

**(Proper/Repeat)**

**DAF 3024 Advanced Cost Accounting**

**No. of Questions: 05**

**No. of Pages: 07**

**Time: 3:00 Hours**

**alculators are permitted**

**nswer All Questions**

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1. (I). Athey Ltd is a distribution company which buys a product in bulk from manufacturers, repackage into smaller and then sells the packs to retail customers. Its' customers vary in size and frequency of their orders also varies. The company plans to do Customer Profitability Analysis (CPA). The information for two customers, and for the entire company, for the last year was as follows.

| Details | Customer | | Company |
|---|---|---|---|
| | A | B | |
| Factory contribution (Rs Mn) | 75 | 40.5 | 450 |
| Number of | | | |
| Packs sold ('000) | 50 | 27 | 300 |
| Sales visits to customers | 24 | 12 | 200 |
| Orders placed by customers | 75 | 20 | 700 |
| Normal deliveries to customers | 45 | 15 | 240 |
| Urgent deliveries to customers | 5 | 0 | 30 |

| Activity costs | Rs Mn |
|---|---|
| Sales visits to customers | 50 |
| Processing orders placed by customers | 70 |
| Normal deliveries to customers | 120 |
| Urgent deliveries to customers | 60 |

**Required**

Prepare a Customer Profit Analysis for each of the two customers based upon (i) number of packs sold and (ii) activity based costing.

**(10 Marks)**

(II). The operating costs of a firm for the last six months are as follows:

| Month | Cost | Production Volume ('000's) |
|---|---|---|
| 1 | 150 | 20 |
| 2 | 156 | 25 |
| 3 | 140 | 22 |
| 4 | 170 | 18 |
| 5 | 158 | 24 |
| 6 | 145 | 23 |

a. Using the high-low method of cost estimation; determine the total fixed cost, variable cost per unit and the cost function.

b. What should be the cost in month 7 when output is expected to be 13000 units?

**(05 Marks)**

**(III).** Product A can be manufactured either by Machine M1 or by Machine M2 can produce 10 units of A per hour and Machine M2, 20 units per hour. hours available are 2,800 hours per annum. Considering the following costs and selling price, determine the profitable method of manufacture M1 and Machine M2

| Details | Per unit of Product A | |
|---|---|---|
| | Machine M1 | Machine M2 |
| Direct materials | 100 | 100 |
| Direct Wages | 50 | 60 |
| Overhead | | |
| Variable | 30 | 35 |
| Fixed | 05 | 05 |
| Total Cost | 185 | 200 |
| Selling Price | 250 | 250 |

(Tot

**02. (I).** AB Ltd produces a product using three stages of production process. information is given for accounting period of April 2018.

Opening stock of work-in-progress in process B : 600 units at Rs.21
Transfer from Process 'A' : 11,000 units at Rs
Direct materials added in process 'B' : Rs.9640
Direct wages : Rs. 14310
Production overhead : Rs.19080
Transferred to process 'C' : : 8,800 units
Units scrapped during the month : 1,200 units
Closing stock of work in progress : 1600 units
Degree of completion:

| Cost | Opening Stock | Closing Stock | Scrap |
|---|---|---|---|
| Material | 80% | 70% | 100% |
| Labour | 60% | 60% | 70% |
| Overhead | 60% | 60% | 70% |

There was a normal loss of 10% of production and units scrapped were per units.

**Required:**
Compute the cost of finished out and closing stock and prepare proces and abnormal loss/gain account

**(II).** ABC Ltd; adopts a Standard Costing System. The standard output fo 20,000 units and the standard cost and profit per unit is as under:

| | |
|---|---|
| Particulars | |
| Direct Material (3 units @ Rs.1.50) | |
| Direct Labour (3 hrs. @ Rs.1.00 ) | |
| Direct expenses | |
| Factory overheads : Variable | |
| Fixed | |
| Administration overheads | |
| Total Cost | |
| Profit | |
| Selling Price (Fixed by government) | |

The actual production and sales for a period was 14400 units. There has price revision by the government during the period.

The following variances are calculated in Rs. at the end of the period:

| Variances | | Favorable | Adverse |
|---|---|---|---|
| Direct Material | Price | | 4250 |
| | Usage | 1050 | |
| Direct Labour | Rate | | 4000 |
| | Efficiency | 3200 | |
| Factory Overheads | Variable – expenditure | 400 | |
| | Fixed – expenditure | 400 | |
| | Fixed – Volume | | 1680 |
| Administration Overheads | Expenditure | | 400 |
| | Volume | | 1,680 |

**Required:**
Ascertain the details of actual costs and prepare a Profit and Loss Statement for the period showing the actual Profit/Loss.

**(05 Marks)**

**(III).** The demand for a product is 10000 units per year. The set up cost associated with the production is Rs.25000 and the inventory holding cost is Rs.3 per units per month. Production plant capacity is 1500 per month. Find the following.

**Required:**
a. Optimal production lot size.
b. Length of inventory cycle.
c. Number of days per month during which production occurs.

**(05 Marks)**
**(Total: 20 Marks)**

03. (I). The following balances were extracted from the books a Company on 31st July, 2018.

| | Debit Rs. | Credit Rs. |
|---|---|---|
| Stores Ledger Control A/c | 52500 | |
| Work-in-progress Control A/c | 47000 | |
| Finished Goods Control A/c | 37500 | |
| Cost Ledger Control A/c | | 137000 |

The following transactions took place in August 2018.

| | Rs. |
|---|---|
| Raw materials: | |
| Purchased | 142500 |
| Returned to suppliers | 4500 |
| Issued to production | 147000 |
| Returned to stores | 4500 |
| Productive wages | 60000 |
| Indirect Labour | 37500 |
| Factory overheads expenses incurred | 75000 |
| Selling and administrative expenses | 60000 |
| Cost of finished goods transferred to warehouse | 319500 |
| Cost of Goods sold | 315000 |
| Sales | 450000 |

Factory overheads are applied to production at 160% of direct wages, any under/over absorbed overhead being carried forward for adjustment in the subsequent months. All administrative and selling expenses are treated as period costs and charged off to the Profit and Loss Account of the month in which they are incurred. Show the following Accounts:

a. Cost Ledger Control Account
b. Factory Overhead Control Account
c. Stores Ledger Control Account
d. Costing Profit and Loss Account

e. Work-in-progress Control Account
f. Finished Goods Stock Control Account

**(II).** The financial books of a company show a net profit of Rs.127560 for the 31st December 2018. The Cost Account shows a net profit of Rs.13352 corresponding period. The following facts are brought to light:

| | Rs. |
|---|---|
| Factory overhead under recovered in costing books | : 11400 |
| Administration overhead over recovered in costing books | : 8500 |
| Depreciation charged in financial accounts | : 7320 |
| Depreciation recovered in cost accounts | : 7900 |
| Interest received but not included in cost accounts | : 900 |
| Income Tax debited in financial accounts | : 1200 |
| Bank interest credited financial accounts | : 460 |
| Stores adjustment credited in financial accounts | : 840 |
| Rent charged in financial accounts | : 1,720 |
| Dividend paid recorded in financial accounts | : 2400 |
| Loss of obsolescence charged in financial accounts | : 520 |

**Required:**
Statement reconciling the profit as per costing records with the profit as p Records.

**(III).** A company basic wage rate is Rs.150 per hour and its overtime rates are
Evenings : Time and one third
Weekends : Double time
During the previous year the following hours were worked:

| | Hours |
|---|---|
| Normal time | 220000 |
| Time plus one third | 20000 |
| Double time | 10000 |

The following time (Hours) has been worked on three jobs.

| | Job 1 | Job 2 | Job 3 |
|---|---|---|---|
| Normal time | 2500 | 3000 | 3800 |
| Evening time | 400 | 500 | 950 |
| Weekend overtime | 150 | 120 | 250 |

Required:
You are required to calculate the labour cost chargeable to each job in following circumstances:

a. Where overtime is worked regularly through the year as company labour shortage.
b. Where overtime is worked irregularly to meet the spasmodic requirements.
c. Where overtime is worked specifically at the customer's request delivery.

(Tota

**04. (I).** The Cynin Company uses a job-costing system at its Kattunayaka plant. T a Machining Department and an Assembly Department. Its has tw categories (direct materials and direct manufacturing labor) and two m overhead cost pools (the Machining Department overhead, allocated to jo actual machine-hours, and the Assembly Department overhead, alloc based on actual direct manufacturing labor costs). The 2018 budget for th

| | Machining Department | Assembly Department |
|---|---|---|
| Manufacturing overhead (Rs.) | 1800000 | 3600000 |
| Direct manufacturing labor cost (Rs.) | 1400000 | 2000000 |
| Direct manufacturing labor-hours | 100000 | 200000 |
| Machine-hours | 50000 | 200000 |

February, the job-cost record for Job 574 contained the following:

| | Machining Department | Assembly Department |
|---|---|---|
| Direct materials used | 45000 | 70000 |
| Direct manufacturing labor costs | 14000 | 15000 |
| Direct manufacturing labor-hours | 1000 | 1500 |
| Machine-hours | 2000 | 1000 |

Required:

a. Compute the budgeted manufacturing overhead rate for each department.
b. Compute the total manufacturing overhead costs allocated to the Job.
c. At the end of year, the actual manufacturing overhead costs were Rs.2100000 in Machining and Rs.3700000 in Assembly. Assume that 55000 actual machine hours were used in Machining and that actual direct manufacturing labor costs in Assembly were Rs.2200000. Compute the over or under allocated manufacturing overhead for each department.

**(08 Marks)**

(II). Lanka Press Limited was asked to quote for supplying 1000, 5000 and 25000 booklets. The company normally expects a profit of 10% on sales. Costs were recognized as follows:
Paper and other materials (per 1000 copies) is Rs. 12000
Wages (per 1000 copies) is Rs. 15000
Layout and Setup cost is Rs.5000
Fixed overhead is Rs.6000 upto 5000 units above this each 1000 units it will increased by Rs.500
Variable overhead is 12% of wages

**Required:**
Minimum selling price might be quoted per 1000, 5000 and 25000 copies

**(05 Marks)**

(III). The following figures were extracted in respect of particular contract Shahan Construction Ltd. for the year 2017:

| | Rs. |
|---|---|
| Materials purchased and delivered to work site | 450000 |
| Materials issued from site stores | 45000 |
| Materials returned to stores | 5000 |
| Site wages | 150000 |
| Site office expenses | 20000 |
| Plant transferred to site | 50000 |
| Plant returned from site | 15000 |
| Consulting and design fees | 13000 |
| Sub contract work | 52000 |
| | |
| Central Office Overhead @ 10% on Site Wages | |
| Plant at site | 18000 |
| Material at site | 10000 |
| Prepayments | 2000 |
| Accruals | 3000 |

| | |
|---|---|
| Cost of work done but not certified | 35000 |
| Value of work certified by Architect | 363000 |

**Required:**
Prepare Contract Account and Profit and Loss on Contract Account

(Total

**05. (I).** Mr.A has been promised a contract to run a tourist car on a 30km long chief executive of a multinational firm. He buys a car costing Rs. 3500000 costs of insurance and taxes are Rs.65000 and Rs.22000 respectively. He Rs.8000 per annum for garage. The annual repair costs are estimated at The car is estimated to have a life of 10 years, at the end of which the sc likely to be Rs.500000.
He hires a driver who is to be paid Rs.30000 per month plus 10% of the commission. Other incidental expenses are estimated at Rs. 2500 per m and oil will cost Rs.500 per 100km. The car will make 4 round trips Assuming that a profit of 20% on takings is desired and that the car will be for 25 days on an average per month.

**Required:**
a. Calculate cost per km.
b. What should he charge per round trip?

**(II).** GK paints manufacture 1000 tins of paints when working at normal capa the cost of Rs. 25 in manufacturing one unit. The details of this cost are

| Particulars | Rs. |
|---|---|
| Direct material | 12 |
| Direct labor | 5 |
| Variable overheads | 3 |
| Fixed overheads | 5 |
| Production cost (per unit) | 25 |

Each unit of product is sold for Rs. 32 with variable selling and a expenses of Rs. 1.50 per unit of production. During the next 3 months normal capacity units can be produced and sold. Management plans to the factory estimating that the fixed manufacturing cost can be reduced for the quarter.
When the plant is operating, the fixed overhead costs are incurred at a throughout the year. Additional cost of plant shut down for the thre estimated at Rs. 4900.

**Required:**
Discuss whether the plant should be shut down for three months.

**(III).** The following information relate to East Cinema for the year ending 31st

| Salaries | Rs. |
|---|---|
| Manager 02 | 15000 each p.m |
| Operator 02 | 10000 each p.m |
| Clerk 01 | 8000 p.m |
| Other Expenses | |
| Electricity | 200000 |
| Carbon | 150000 |
| Miscellaneous Expenditure | 55000 |
| Advertisement | 90000 |
| Administrative expenses | 65000 |

The premises are valued at Rs. 8000000 aand its estimated life is 15 years. Projector and other equipment cost Rs.800000 on which 12% of depreciation to be charged. Daily two shows are run throughout the year. Total capacity is 485 seats which are divided into two classes as follows.

Normal 335 seats
Balcony 150 Seats

**Required:**
Calculate ticket rates to be charged in each category, assuming that weightage to be given to the classes in the ratio of 1:4, where 40% of the total seats remain vacant and management expects return 40% on sales.

**(07 Marks)**
**(Total:20 Marks)**