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B.Sc. Engg. CSE 6th Sem. Date: May 16, 2024

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)

**DEPARTMENT OF BUSINESS AND TECHNOLOGY MANAGEMENT**

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| Semester Final Examination | Summer Semester, A. Y. 2022-2023 |
| Course No: HUM 4641 | Time : 3 hours |
| Course Title: Accounting | Full Marks : 150 |

Answer **all 6 (six)** questions. All questions carry equal marks. Marks of each question and corresponding CO and PO are written in the right margin within brackets.

1. a) What are the assumptions of Cost-Volume-Profit (CVP) Analysis? Explain. 09 (CO1) (PO1)

   b) Explain different kinds of manufacturing costs with examples. 08 (CO1) (PO1)

   c) Distinguish between managerial and financial accounting. 08 (CO1) (PO1)

2. John Corporation has collected the following information after its first year of sales. Sales were $1,600,000 on 100,000 units, selling expenses $250,000 (40% variable and 60% fixed), direct materials $490,000, direct labor $290,000, administrative expenses $270,000 (20% variable and 80% fixed), and manufacturing overhead $380,000 (70% variable and 30% fixed). Top management has asked you to do a CVP analysis so that it can make plans for the coming year. It has been projected that unit sales will increase by 10% next year. 25 (CO3) (PO11)

   **Instructions:**

   I. Compute the contribution margin for the current year and the projected year, and the fixed costs for the current year. (Assume that fixed costs will remain the same in the projected year.

   II. Compute the break-even point in units and sales dollars for the current year.

   III. The company has a target net income of $200,000. What are the required sales in dollars for the company to meet its target?

   IV. If the company meets its target net income number, by what percentage could its sales fall before it is operating at a loss? That is, what is its margin of safety ratio?

3. Meghna Industries had sales in 2016 of $6,800,000 and gross profit of $1,100,000. Management is considering two alternative budget plans to increase its gross profit in 2017. Plan A would increase the selling price per unit from $8.00 to $8.40. Sales volume would decrease by 10% from its 2016 level. Plan B would decrease the selling price per unit by $0.50. The marketing department expects that the sales volume will increase by 100,000 units. At the end of 2016, Meghna has 40,000 units of inventory on hand. If Plan A is accepted, the 2017 ending inventory should 25 (CO3) (PO11)

be equal to 5% of the 2017 sales. If Plan B is accepted, the ending inventory should be equal to 60,000 units. Each unit produced will cost \$1.80 in direct labor, \$1.40 in direct materials, and \$1.20 in variable overhead. The fixed overhead for 2017 should be \$1,895,000.

**Instructions:**

I. Prepare a sales budget and a production budget for 2017 under each plan.
II. Compute the production cost per unit under each plan. Why is the cost per unit different for each of the two plans? (Round to two decimals.)
III. Compute the gross profit under each plan. Which plan should be accepted?

4. a) On April 1, Julie Spengel established Spengel's Travel Agency. The following transactions were completed during the month. (CO2) (PO11)

**April 1:** Invested \$15,000 cash to start the agency.
**April 2:** Paid \$600 cash for April office rent.
**April 3:** Purchased equipment for \$3,000 cash.
**April 4:** Incurred \$700 of advertising costs in the Chicago Tribune, on account.
**April 8:** Paid \$900 cash for office supplies.
**April 9:** Performed services worth \$10,000: \$3,000 cash is received from customers, and a balance of \$7,000 is billed to customers on account.
**April 17:** Withdrew \$600 cash for personal use.
**April 19:** Paid Chicago Tribune \$500 of the amount due in transaction in April **(4).**
**April 25:** Paid employees' salaries are \$2,500.
**April 27:** Received \$4,000 in cash from customers who have previously been billed in transaction in April **(9).**

**Instructions:** Journalize the transactions.

b) An inexperienced bookkeeper prepared the following trial balance for Kwun company. Prepare a correct trial balance, assuming all account balances are normal. 10 (CO2) (PO11)

Kwun Company
Trial Balance
December 31, 2018

| Accounts Title | Debit | Credit |
|---|---|---|
| Cash | \$14,800 | |
| Prepaid Insurance | | \$3,500 |
| Accounts Payable | | 3,000 |
| Unearned Revenue | 2,200 | |
| P. Kwun, Capital | | 13,000 |
| P. Kwun, Drawing | | 4,500 |
| Service Revenue | | 25,600 |
| Salaries Expense | 18,600 | |
| Rent Expense | | 2,400 |
| | \$35,600 | \$52,000 |

5. The adjusted trial balance columns of the worksheet for Thao Company, owned by D. Thao, are as follows. 25 (CO2) (PO11)

THAO COMPANY
Worksheet
For the Year Ended December 31, 2017

| Account Titles | Adjusted Trial Balance | |
|---|---|---|
| | **Debit ($)** | **Credit ($)** |
| Cash | 5,300 | |
| Accounts Receivable | 10,800 | |
| Supplies | 1,500 | |
| Prepaid Insurance | 2,000 | |
| Equipment | 27,000 | |
| Accumulated Depreciation—Equipment | | 5,600 |
| Notes Payable | | 15,000 |
| Accounts Payable | | 6,100 |
| Salaries and Wages Payable | | 2,400 |
| Interest Payable | | 600 |
| Owner's Capital | | 13,000 |
| Owner's Drawings | 7,000 | |
| Service Revenue | | 61,000 |
| Advertising Expense | 8,400 | |
| Supplies Expense | 4,000 | |
| Depreciation Expense | 5,600 | |
| Insurance Expense | 3,500 | |
| Salaries and Wages Expense | 28,000 | |
| Salaries and Wages Expense Interest Expense | 600 | |
| Totals | $103,700 | $103,700 |

**Instructions:**

I. Prepare an income statement.

II. Prepare a balance sheet. (Note: $5,000 of the notes payable become due in 2018.) Thao did not make any additional investments in the business during the year.

III. Prepare the closing entries. Use J14 for the journal page.

IV. Prepare a post-closing trial balance.

6. a) Kingston Company uses job order costing and applies overhead to production based on direct labor costs. On January 1, 2017, Job 50 was the only job in process. The costs incurred prior to January 1 on this job were as follows: direct materials \$20,000, direct labor \$12,000, and manufacturing overhead \$16,000. As of January 1, Job 49 had been completed at a cost of \$90,000 and was part of finished goods inventory. There was a \$15,000 balance in the Raw Materials Inventory account. During the month of January, Lott Company began production on Jobs 51 and 52, and completed Jobs 50 and 51. Jobs 49 and 50 were also sold on account during the month for \$122,000 and \$158,000, respectively. The following additional events occurred during the month. 25 (CO3) (PO11)

**I.** Purchased additional raw materials of \$90,000 on account. Incurred factory labor costs of \$70,000. Of this amount \$16,000 related to employer payroll taxes.

**II.** Incurred manufacturing overhead costs are as follows: indirect materials \$17,000, indirect labor \$20,000, depreciation expense on equipment \$12,000, and various other manufacturing overhead costs on account \$16,000.

**III.** Assigned direct materials and direct labor to jobs as follows.

| Job No | Direct materials | Direct labor |
|---|---|---|
| 50 | \$10,000 | \$5,000 |
| 51 | 39,000 | 25,000 |
| 52 | 30,000 | 20,000 |

**Instructions:**

I. Calculate the predetermined overhead rate for 2017, assuming Lott Company estimates total manufacturing overhead costs of \$840,000, direct labor costs of \$700,000, and direct labor hours of 20,000 for the year.

II. Open job cost sheets for Jobs 50, 51, and 52. Enter the January 1 balances on the job cost sheet for Job 50.

III. Prepare the journal entries to record the purchase of raw materials, the factory labor costs incurred, and the manufacturing overhead costs incurred during the month of January.

IV. Prepare the journal entries to record the assignment of direct materials, direct labor, and manufacturing overhead costs to production. In assigning manufacturing overhead costs, use the overhead rate calculated in (1). Post all costs to the job cost sheets as necessary.

V. Total the job cost sheets for any job(s) completed during the month. Prepare the journal entry (or entries) to record the completion of any job(s) during the month. Prepare the journal entry (or entries) to record the sale of any job(s) during the month.

VI. What is the balance in the Finished Goods Inventory account at the end of the month? What does this balance consist of?

VII. What is the amount of over- or under-applied overhead?