**Advanced Liquidity Analysis**

**Learning Problems**

**Managing Liquidity Ratios**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Transaction** | **Current Ratio** | **Quick Ratio** | **Cash Ratio** | **NWC** | **Debt Ratio** |
| 1 | Borrows CAD 10,000 from the bank on a short-term note |  |  |  |  |  |
| 2 | Writes off a CAD 5,000 customer account |  |  |  |  |  |
| 3 | Issues CAD 25,000 in new common stock for cash |  |  |  |  |  |
| 4 | Purchases CAD 7,000 of new equipment for cash |  |  |  |  |  |
| 5 | CAD 5,000 of inventory is destroyed by fire |  |  |  |  |  |
| 6 | Invests CAD 3,000 in short-term marketable securities |  |  |  |  |  |
| 7 | Issues CAD 10,000 in long-term bonds |  |  |  |  |  |
| 8 | Sells equipment with a book value of CAD 6,000 for CAD 7,000 |  |  |  |  |  |
| 9 | Issues CAD 10,000 of stock in exchange for land |  |  |  |  |  |
| 10 | Purchases CAD 3,000 in inventory for cash |  |  |  |  |  |
| 11 | Purchases CAD 5,000 in inventory on credit |  |  |  |  |  |
| 12 | Pays CAD 2,000 to a supplier on account |  |  |  |  |  |

The current and quick ratios are currently above 1.0. The cash ratio is below 1.0.

**REQUIRED:**

1. Determine the effect of each of the above transactions on the corresponding ratios.

**Financial Assets with No Influence**

On January 1, 2018, Harrison Company purchased several passive debt and equity investments as part of a contingency fund to pursue future business opportunities.

|  |  |
| --- | --- |
| Common shares in Isaac Inc. | 1,200 shares purchased at CAD 35  |
| Common shares in Orange Ltd. | 480 shares purchased at CAD 47 |
| Bonds in Small Co. | 25, CAD 1,000, 4 percent coupon, 3-year bonds purchased at 103 |

Harrison has elected to account for its bond investment using amortized cost. It plans to hold the bonds till maturity and can do so. The common shares will be accounted for at fair value through other comprehensive income. The company does not know when the investments will be liquidated, as it depends on when business opportunities materialize.

The following information was collected relating to the investments:

|  |  |  |
| --- | --- | --- |
|  | **2018** | **2019** |
| Bond quotation | 104 | 102 |
| Isaac Inc. |  |  |
|  Annual dividend | CAD 2.45 | CAD 2.50 |
|  Closing price | CAD 39.31 | CAD 38.70 |
| Orange Ltd. |  |  |
|  Annual dividend | CAD 3.70 | CAD 3.80 |
|  Closing price | CAD 43.20 | CAD 49.10 |

The shares in Orange were sold on December 31, 2019, but the company continues to own the remaining investments.

**REQUIRED:**

1. Make the appropriate journal entries relating to the investments in 2018 and 2019.
2. How would the entries for the common shares change if Harrison elected to account for them at fair value through profit or loss?
3. How would the entries for the bond investment change if Harrison did not plan on or was not able to hold them till maturity, or elected to account for them at fair value through profit or loss?
4. How should the investments be classified on the 2018 balance sheet? What might Harrison do to make the company appear more liquid?

**Trade Receivables at TechCo**

TechCo aged its trade accounts receivable at the end of the 2023 reporting period. Its sales are grouped into wholesale and retail sales because of different loss patterns.

|  |
| --- |
| **Wholesale Customers (000)** |
| **CAD** | **Current** | **30 Days Past Due** | **60 Days Past Due** | **90 Days Past Due** | **More than 120 Days Past Due** | **Credit-Impaired** |
| Balance | 1,212,750 | 637,560 | 201,294 | 162,162 | 77,230 | 43,038 |
| ECL rate | 1.1% | 2.3% | 4.5% | 8.2% | 18.0% | 100.0% |

|  |
| --- |
| **Retail Customers (000)** |
| **CAD** | **Current** | **30 Days Past Due** | **60 Days Past Due** | **90 Days Past Due** | **More than 120 Days Past Due** | **Credit-Impaired** |
| Balance | 1,010,625 | 531,300 | 167,475 | 135,135 | 63,525 | 35,865 |
| ECL rate | 2.1% | 3.2% | 6.3% | 10.1% | 25.5% | 100.0% |

The ECL rates are based on credit sales in 2018-2022 and increased by 0.25% this year due to a forecasted rise in the 2024 unemployment rate. The ECL at the end of 2022 was CAD 1,950,750.

**REQUIRED:**

1. What is TechCo’s ECL at the end of the 2023 reporting period?
2. What is the credit loss or recovery in 2023?

**Long-term Receivables at Swiss Army**

Swiss Army sold merchandise worth CAD 5,000 to Finnair on January 1, 2017, and received a two-year, 6.0% note. The note calls for annual interest to be paid each December. Swiss Army collected the 2017 interest on schedule. On December 31, 2018, however, based on Finnair’s recent financial problems, Swiss Army expects that the 2018 interest payment will not be collectible and that only CAD 3,000 of the principal will be collected. The principal payment is expected to be delayed until December 31, 2000.

On December 31, 2019, Swiss Army re-estimated that CAD 4,000 would be collected. On December 31, 2020, Swiss Army collected CAD 3,500 and wrote off the balance owed.

**REQUIRED:**

1. Make the journal entries relating to this note from 2017 through 2020.

2. How could loan impairments be used to manage earnings?

**Long-term Receivables and Jackson**

Jackson Company sold goods worth CAD 10,000 to Elsa Company on January 1, 2017, and received CAD 3,500 down and a 3-year, 10.0% note for the balance. Interest is to be paid at the end of each year, and the principal is to be paid at maturity. The note rate approximates the market rate.

On December 31, 2017, Elsa Company did not pay its interest. The controller contacted Jackson Company and explained the firm was having serious financial problems and was unsure whether it could pay the required interest or principal in the future. Based on this, Jackson Company declared the note impaired and estimated that only CAD 4,500 in principal would be collected on December 31, 2019. No attempt would be made to collect the remaining amounts due to the legal expenses involved.

On December 31, 2018, the estimated amount to be collected was reduced to CAD 4,000.

On December 31, 2019, CAD 6,000 was collected, and Jackson Company gave up pursuing the account.

**REQUIRED:**

1. Make the journal entries relating to this note from 2017 through 2019.

**Inventory Valuation at Jones**

Jones Company has supplied the following inventory data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Units** | **Cost Per Unit** | **Total Cost** |
| January 1 | 1,000 | CAD 4.00 | CAD 4,000 |
| February 20 | 800 | 4.50 | 3,600 |
| April 1 | 900 | 4.75 | 4,275 |
| July 1 | 700 | 5.00 | 3,500 |
| October 22 | 500 | 4.90 | 2,450 |
| December 10 | 500 | 5.00 | 2,500 |
| Total | 4,400 |  | CAD 20,325 |

The company’s year-end is on December 31, 2018. There are 1,000 units in inventory on December 31.

**REQUIRED:**

1. Calculate the value of ending inventory using the following methods:

FIFO Average Cost

1. What if the net realizable value of inventory fell to CAD 4.25 by December 31?
2. What would the gross profit margin be under each of the above inventory methods if the product sold for CAD 9.50 per unit in part 1?

**Restructuring Provisions at Roanoke**

Roanoke Industries is experiencing financial difficulties and has decided to eliminate several unprofitable product lines over the next year. A restructuring provision will be recognized at year-end on December 31, 2018, consisting of the following costs:

|  |  |
| --- | --- |
| Severance pay | (CAD 2,580,000) |
| Retraining and relocation costs |  |
|  Terminated employees | (1,530,000) |
|  Continuing employees | (525,000) |
| Estimated future product line losses | (5,780,000) |
| Expected gain on sale of production assets | 2,140,000 |
| Marketing | (950,000) |
| Computer systems development | (1,380,000) |
| **Total** | (CAD 10,605,000) |

Roanoke’s board of directors approved a formal restructuring plan. The company has begun interviewing employees to present their options. Marketing costs relate to a new advertising campaign to help increase demand for the company’s remaining products. Computer systems development costs are required to build a product information system that will provide real-time information on sales and profitability. Roanoke’s CEO feels that a lack of product information is a major reason for the company’s current difficulties.

On March 1, 2019, Roanoke paid out CAD 1,950,000 in severance costs.

On April 1, 2019, Roanoke paid CAD 200,000 in legal costs for several lawsuits involving terminated employees. These costs were not included in the original estimated restructuring costs.

On September 1, 2019, Roanoke paid out CAD 1,150,000 in retraining and relocation costs for terminated employees.

The restructuring plan was completed on November 1, 2019.

**REQUIRED:**

1. Make the appropriate journal entries relating to the restructuring provision in 2018 and 2019.
2. Describe the earnings management techniques that Roanoke may be using.

**Warranty Provisions at Ryan**

On January 1, 2018, Ryan Ltd. sold CAD 15,000,000 in heavy-duty equipment with a two-year warranty. It used a 3.0% warranty cost estimate, but the company has decided to reduce its estimate to 2.0% this year. Ryan incurred CAD 440,000 in warranty costs uniformly over the two years.

**REQUIRED:**

1. Make the appropriate journal entries relating to the warranty provision.
2. Describe the earnings management techniques that Ryan may be applying.

**Accounting Transactions**

1. The auditors for Williams Ltd. discovered that property taxes of CAD 85,500 were not recorded in 2021.
2. XYZ Company is currently depreciating its equipment over 15 years. Due to competitive pressures, the company has decided to reduce this period to 10 years.
3. Dexter Company filed an appeal with the Alberta Gas Regulatory Commission. It claims that Trans Canada Pipeline underpaid it for gas shipped in 2011. Dexter's lawyer says it is probable that the company will receive CAD 250,000 when the commission makes its decision later this year.
4. Kala Ltd. decided to account for its inventories using FIFO instead of the average cost method in 2022.
5. Roxy Company is being sued for CAD 5,000,000 in a product liability suit for which it carries no insurance. The company's lawyer will not give an opinion on the court’s possible findings.
6. Able Ltd. purchased supplies from Doris Inc. for CAD 28,000. Doris has a controlling interest in Able.
7. Jackson Ltd. paid CAD 150,000 to the daughter of its CEO to provide management consulting services.
8. On January 5, 2023, a customer of Allison Company went bankrupt. Accounts receivable of CAD 150,000 were no longer collectable.
9. Ranson Company was a defendant in a CAD 3,000,000 lawsuit. The controller contacted the company's attorney and said she was trying to settle the case out of court for CAD 650,000.
10. Charlotte Ltd. sold land to Sigma Company for CAD 350,000. Charlotte and Sigma are both subsidiaries of Rasputin Inc.
11. Router Mining Ltd. wrote down the value of its mining property outside Kamloops. The write-down was based on an uncertain estimate of the discount rate and the tonnes of ore remaining at the site. The company’s engineers indicated the mine capacity estimate could change materially in the next year based on a current study.
12. On February 1, 2023, Jamison Company's headquarters burned down. The company carried no insurance due to rapidly rising premiums in the insurance industry.
13. Due to the increasing obsolescence of its production equipment, Amsterdam Ltd. changed from straight-line to declining balance depreciation.
14. Edgar Company agreed to purchase a new manufacturing plant from Zippo Company on March 10, 2023, for CAD 100,000,000.
15. Ryley Ltd. provided a loan guarantee to one of its subsidiaries.
16. Dubai Industries must hold CAD 10,000,000 in cash and cash equivalents for 15 months under a purchase contract.
17. Delta Construction has a project under development that will be finished in 20 months. A construction loan will be paid when the project is completed.
18. Frolic Company has the right to roll over a 5-year loan maturing June 1, 2023.
19. Henderson Enterprises defaulted on a bank loan on December 15, 2022. It was granted a 15-month grace period on December 20, 2022, by its lender if it can maintain its current ratio above 1.5 and its long-term debt to total capitalization ratio below 40.0%.
20. CanDo Ltd. has a CAD 5,000,000 loan with a private equity firm due May 1, 2023, that can be paid at its discretion in the company’s shares.

**REQUIRED:**

1. Describe how to account for each of the above transactions when preparing the financial statements for the year ending December 31, 2022. The financial statements are to be authorized for issue on April 1, 2023.