ACCT2111 IJK: Introductory Financial Accounting

2024-2025 2nd Term

Suggested Solution

Part B: Problem Type Questions

Question 1

1. A)

Straight-Line Method:

$770,000 + $30,000 = $800,000

($800,000 - $40,000) ÷ 4years = $190,000/year

Dec 31, 2021	Dr. Depreciation Expense	$190,000	
	Cr. Accumulated Depreciation		$190,000

B)

NBV (year2) = $800,000 – ($190,000 × 2) = $420,000

2. A)

Double-Declining Method:

(1 ÷ 4 years) × 2 = 50%/year

Year 1 Depr.: $800,000 × 50% = $400,000

Year 2 Depr.: ($800,000 - $400,000) × 50% = $200,000

B)

NBV (year 2) = $800,000 – ($400,000 + $200,000) = $200,000

3.

Double-declining results in higher expenses and lower net book value in early years compared to straight-line.

- Straight-Line Advantage: Simple to apply and provides a consistent expense each period.
- Double-Declining Advantage: Better matches expenses with revenue if the asset is most productive when new.

4.

($420,000 - $50,000) ÷ 4 = $92,500

Dec 31, 2022	Dr. Depreciation Expense	$92,500	
	Cr. Accumulated Depreciation		$92,500

5.

Depr. For 2024: $92,500 × (9 ÷ 12) = $69,375

Book Value: $420,000 - $92,500 - $69,375 = $258,125

$260,000 - $258,125 = $1,875

Accumulated Depreciation: $380,000 + $92,500 + $69,375 = $541,875

Sept 30, 2023	Dr. Cash	$260,000	
	Dr. Accumulated Depreciation	$541,875	
	Cr. Vehicle		$800,000
	Cr. Gain on sale of Vehicle		$1,875

Question 2

Present Value Factor for One-Dollar Single Amount							
Period	4%	5%	6%	7%	8%	9%	10%
3	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513
4	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830
5	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209
6	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645
Present Value Factor for One-Dollar Annuity							
Period	4%	5%	6%	7%	8%	9%	10%
3	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869
4	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699
5	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908
6	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553

1.

Payments: $10,000 semi-annually for 3 years (6 periods)

Rate: 8% ÷ 2 = 4%/period

Notes Payable: $10,000 × 5.2421 = $52,421

$80,000 + $52,421 = $132,421

Jan 1, 2024	Dr. Building	$132,421	
	Cr. Cash		$80,000
	Cr. Notes Payable		$52,421

2.

Jun 30: $52,421 × 4% = $2,097

$52,421 + $2,097 - $10,000 = $44,518

Dec 31: $44,518 × 4% = $1,781

$44,518 + $1,781 - $10,000 = $36,299

Year 1 Interest Expense: $2,097 + $1,781 = $3,878

Year 1 Book Value: $36,299

3.

Income Tax: $30,000 × 15% = $4,500

MPF Exp. = $30,000 × 5% = $1,500

Dec 2024	Dr. Salaries Expense	$30,000	
	Dr. MPF Expense	$1,500	
	Cr. Income Tax Payable		$4,500
	Cr. MPF Payable		$3,000
	Cr. Cash		$24,000

4.

2024 Entry

Dr. Warranty Expense	$15,000	
Cr. Warranty Provision		$15,000

5.

2025 Entry

Dr. Warranty Provision	$2,000	
Cr. Cash		$2,000

The 2025 settlement has little impact on its profit since the expense was already counted in 2024.

Question 3

Present Value Factor for One-Dollar Single Amount						
Period	3%	4%	5%	6%	7%	8%
3	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938
4	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350
5	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806
6	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302
7	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835
8	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403
Present Value Factor for One-Dollar Annuity						
Period	3%	4%	5%	6%	7%	8%
3	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771
4	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121
5	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927
6	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229
7	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064
8	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466

1.

Present Value of bonds: $800,000 × 0.7307 (4%, period 8) = $584,560

Present Value of Interest: ($800,000 × 3%) × 6.7327 (4%, period 8) = $161,585

Selling Price: $584,560 + $161,585 = $ 746,145

2.

The bonds were issued at a discount because the market rate 8% is higher than the coupon rate 6%.

3.

Initial Book Value: $746,145

Interest Exp. 1: ($746,145 × 4%) - $24,000 = $5,846

Interest Exp. 2: $30,080 - $24,000 = $6,080

Interest Exp. 3: $30,323 - $24,000 = $6,323

Total Book Value: $746,145 + $5,846 + $6,080 + $6,323 = $764,394

4.

Book Value at start of 2026 = $746,145 + $5,846 + $6,080 = $758,071

Period 3 Interest Expense: $758,071 × 4% = $30,323

Amortization: $30,323 - $24,000 = $6,323

New Book Value: $758,071 + $6,323 = $764,394

Period 4 Interest Expense: $764,394 × 4% = $30,576

Total Interest Expense: $30,323 + $30,576 = $60,899

5.

Semi-annual Payment: $800,000 × (6% ÷ 2) = $24,000

Annual Total: $24,000 × 2 = $48,000

6.

Book Value after Period 4: $764,394 + ($30,576 - $24,000) = $770,970

Period 5 Amortization: ($770,970 × 4%) - $24,000 = $6,839

New Book Value: $770,970 + $6,839 = $777,809

Period 6 Amortization: ($777,809 × 4%) - $24,000 = $7,112

End of 2027 Book Value: $777,809 + $7,112 = $784,921

Unamortized Discount: $800,000 - $784,921 = $15,079