

# COMM 293 Final Exam Review

# Plant Assets, Natural Resources, & Intangible Assets

# Non-Current Assets

- Not for sale
- Typically large capital expenditures
- Tangible (land, buildings, equipment)
- Intangible (patent, trademarks)
- Uncertain useful lives

# Measuring Plant Assets

- Recorded at historical cost on acquisition date
- All expenses in acquiring asset and making it ready for intended use are capitalized
- Ex. buying price, legal commissions, taxes on land
- Ex. Testing soil, decontaminating, land improvements

# Buildings and Equipment

- 1) What types of costs should be capitalized for buildings and equipment?

# Expensing vs Capitalization

## Expense

- Regular and recurring
- Not affecting useful life
- Minor amounts
- Dr Maintenance Expense and Repairs
- Ex. maintenance, spare parts

## Capitalize

- Measurable economic benefits
- Extend useful life
- Infrequent
- More production capacity
- Dr Plant asset
- Ex. machine replacements, significant performance enhancers

Materiality Concept – Power to influence investor's decision

# Depreciation

- Not measuring falling economic value
- Allocating procurement costs to benefits received over time
- Expenses 'matching principle'
- Net book value = Acquisition cost – Accum. depreciation
- Methods: Straight line, units of activity, declining balance

# Straight line Depreciation

- Asset depreciates uniformly over time
- Ex. Buildings, computers
- Depreciation expense = depreciable cost / useful life
- Depreciable cost = acquisition cost – salvage value



# Straight Line Depreciation Example

- 2) Amazon buys a building for \$600,000 at start of 2015. The estimated useful life is 10 years and salvage value \$50,000. Show the depreciable cost, annual depreciation expense, accumulated depreciation and book value until 2018.

# Units of Activity Depreciation

- Based on usage of asset
- Ex. cars, planes, some machines
- Depreciation expense = depreciable cost per unit x units of activity in year
- Depreciable cost per unit = depreciable cost / total units of activity

# Units of Activity Example

- 3) Amazon buys a car for \$200,000 in 2015 with residual value \$20,000 and useful life of 50,000 km. If car runs 5,000 km in 2015 and 7,000 km in 2016. Show the annual depreciation cost, accumulated depreciation and book value.

# Declining Balance Depreciation

- Assumes asset provides more benefits in early years
- Greater depreciation expense in early years
- Depreciation expense = beginning BV x  $1/\text{useful life}$
- Depreciation expense = beginning BV x  $2/\text{useful life}$

# Declining Balance Depreciation Example

- 4) Amazon bought a delivery plane for \$400K in 2015 with residual value of \$40K and useful life of 10 years. They use double-declining depreciation. Show depreciation expense, accumulated depreciation and BV until 2017.

# Changing Depreciation Estimates

- Due to new revised useful lives, residual values
- Applied prospectively to current & future years
- 1) Determine asset net BV at time of change
- 2) New depreciable cost = net BV at time of change - updated residual value
- 3) Updated depreciation expense = new depreciable cost / remaining useful life at time of change

# Changing Depreciation Estimate Example

- 5) Amazon buys a factory for \$300K with residual value \$50K and useful life 20 years. They use straight-line depreciation. At the end of the 4<sup>th</sup> year (before depreciating), they update the useful life to 25 years and residual value to \$40K. What is the new depreciation expense?

# Disposal of Assets

- Intentional (ex. sale, retirement)
- Unintentional (ex. loss due to accident)
- Remove asset balance and related accumulated depreciation from balance sheet
  - Dr Cash
  - Dr Accumulated Depreciation
  - Cr Asset (truck, equipment, machine, etc...)
- Then, Dr a loss or Cr a gain from disposal



# Disposal of Assets Example

- 6) Amazon bought a machine for \$90K with a salvage value of \$10K and useful life of 10 years. They use straight-line depreciation. They used the asset for 3 full years before selling it. Record the journal entries if they sold it for: \$66K, \$60K and \$70K.

# Natural Resources

- Total costs include all exploration, evaluation and development expenses of the resource
- Use depletion instead of depreciation
- Use units of activity method to allocate costs over time
- Unit depletion rate =  $\text{total cost} - \text{salvage value} / \text{units estimated in resource}$
- Depletion cost =  $\text{unit depletion rate} \times \text{\# units extracted}$

# Intangible Assets

- No physical substance
- Can have finite or indefinite useful lives
- Must be separable from the company and individually sold
- Same recording measurement treatment as plant assets
  - Acquisition cost includes everything to make it ready for use
  - Ex. buying price, taxes, legal fees

# Definite Useful Life – Patents

- Grants holder exclusive right to produce & sell something
- Legal life of 20 years
- Subject to straight line amortization
- No accumulated amortization for intangible assets
- Ex. 7) Amazon bought a patent for \$120K and plans to use it for 12 years. Journalize the depreciation.

# Intangible Assets – Indefinite Lives

- Not amortized
- Trademarks (legal right to use name/image/slogan for company)
- Costs incurred to buy franchises
  - Ex. the Triple O's in Sauder
  - Amortized only if franchise has finite useful life
- Costs incurred to buy licenses
  - Ex. mining company buys licenses to explore certain area

# Intangible Assets – Indefinite Lives Cont.

- R&D (generally not intangible assets)
  - Varying treatments under IFRS and US GAAP
- Goodwill = purchase cost – fair value of assets
  - Ex. brand name, customer & supply chain relations, strong labour force

# Financial Statement ratio – Asset Turnover

- Asset turnover = net sales / average total assets
- Measure of capacity to make sales based on fixed investment in assets
- High value = very good assets
- Ex. 8) Amazon's net sales in 2019 were 3.2M and ending balance of assets in 2019 of 5.4M and ending in 2018 4.8M. Find asset turnover.

Liabilities



# Liabilities Basics

- Debt is key part of building assets
- Obligations, from past transactions, resulting in outflow of economic resources
- Liability types:
  - Certain (specific amounts owed)
  - Provisions (timing/amount is uncertain)
  - Contingent (depends if on occurrence of future event)

# Current Liability Types

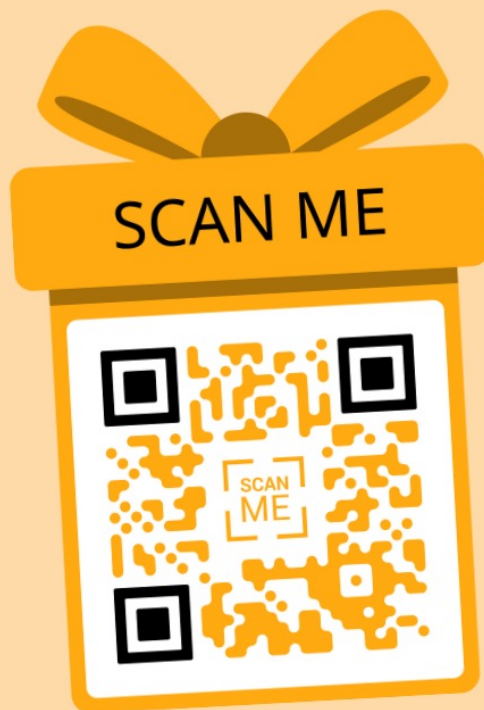
- Due in less than 1 year
- Accounts/trades payable
- Notes payable
  - Interest = face value x annual interest rate x time (in terms of years)
  - Ex. 9) Apple gives a \$200K note payable to Amazon at 15% annual interest. Repayment is due in 5 months. Write the journal entries at granting of note, interest payment after 1 month, and at payback for Amazon.

# Liabilities - Unearned Revenues

- Cash is received before a product/service is delivered
- Ex. 10) Amazon rents out to Apple some of its warehouse storage space at \$4K year. Journalize transaction for Amazon at the start, and every month.

# Provisions Liabilities

- Certain liability, but uncertain timing or value
- Ex. product warranties
- Ex. 11) Apple sold 300 iPhones and estimates a \$50 warranty cost on each. Later, the total warranty cost turned out to be \$10K. Journalize the warranty entries.



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# Bonds

- Long-term liabilities
- Buyer of the bond is lending money to the seller
- Buyer is owed periodic interest payments and principal value when the bond matures
- Price of bond = present value of future cash flows
- Sample 100K bond at 10% interest, maturing in 4 years payment schedule:

# Bonds – Market $r$ = Stated $r$

- PV of future cash flows = bond's face value
- PV of 1 time payment =  $P(1+r)^{-t}$
- PV of an annuity =  $A[(1-(1+r)^{-t})/r]$
- Could apply 1 time payment multiple times, but that is more work

## Bonds – Market $r$ = Stated $r$

- Ex. 12) Amazon issues a \$50K face value bond at 10% interest, maturing in 3 years. The market interest rate is 10%. Journalize the bond sale, interest payments and maturity date.



## Bonds – Market $r >$ Stated $r$

- Bonds sell at a discount (less than their face value)
- Interest expense = market  $r$  x bond carrying value
- Bond carrying value = bond face value – balance in discounts on bonds payable

## Bonds – Market $r >$ Stated $r$

- Ex. 13) Amazon issues a \$50K face value bond at 10% interest maturing in 3 years. The market interest rate is 11%. Journalize the bond sale, first and second interest payment.

## Bonds – Market $r <$ Stated $r$

- Bonds sell at a premium (more than their face value)
- Interest expense = market  $r$  x bond carrying value
- Bond carrying value = bond face value + balance in premium on the bonds payable

## Bonds – Market $r <$ Stated $r$

- Ex. 14) Amazon issues a \$50K face value bond at 10% interest maturing in 3 years. The market interest rate is 9%. Journalize the bond sale, first and second interest payment.

# Financial Statement Ratios – Working Capital

- Working capital = current assets – current liabilities
- Measure of how effective current assets are at satisfying current liabilities
- Too small -> lots of obligations to creditors (possible threat to be unmet)
- Too large -> poor use of inventory (excess inventory)

# Financial Statement Ratios

- Current ratio = current assets / current liabilities
  - Ability to satisfy short-term liabilities
  - Suggest good liquidity if large ratio
- Debt to asset = total liabilities / total assets
  - Indicator if company can satisfy maturity debt obligations
- Times interest earned = (net earnings + interest expense + income tax expense) / interest expense
  - Capacity to cover interest payment liabilities

# Shareholder's Equity

# Shareholder's Equity Sources

- Retained earnings
  - Reinvested net income, less dividends
- Contributed surplus
  - Gains from selling shares over par value and other transactions
- Paid-in capital
  - Proceeds from share issuance, investor contributions



# Share Issuance Details

- Authorized shares
  - Set number of shares allowed to be sold
  - Does not lead to journal entries
- Total issued shares
  - Outstanding shares -> held by shareholders
  - Treasury shares -> required by company
- Market cap = # shares issued x share price at given date

# Common Shares

- If issued for cash -> Dr Cash , Cr Common Shares
- If issued for asset -> Dr Asset, Cr Common Shares
  - Recorded at market value of asset (if unknown, then market value of share)
- If issued for service -> Dr Service Expense, Cr Common Shares
  - Recorded at market value of service (if unknown, then market value of share)
- Ex. 15) Amazon issued 7K shares at \$3 each to get equipment valued at \$30K. Later, they received customized consulting services in exchange for 5K shares at \$4 each. Journalize both cases.

# Steps for Journalizing Reacquisition of Shares

- Write off cost of shares from share capital account
  - Calculate avg. issuance price  $\rightarrow$  balance of common share account / # of outstanding common shares before acquisition
  - Dr Common Shares, Cr Asset
- Record cash payment
- Record difference to contributed surplus as gain/loss

# Share Reacquisition - Issuance p = Purchase p

- Dr Common Shares, Cr Cash
- Ex. 16) Amazon had \$300K in their common shares account and 125K common shares issued. They reacquired and cancelled 12K shares at \$2.4 each. Journalize.

# Share Reacquisition - Issuance $p >$ Purchase $p$

- Dr Common Shares, Cr Cash, Cr Contributed Surplus
- Ex. 17) Amazon had \$400K in their common shares account and 100K common shares issued. They reacquired and cancelled 12K shares at \$2.4 each. Journalize.

# Share Reacquisition - Issuance $p < \text{Purchase } p$

- Dr Common Shares, Dr Contributed Surplus, Cr Cash
- Debit leftover to retained earnings if not enough balance in contributed surplus
- Ex. 18) Amazon had \$250K in their common shares account and 140K common shares issued. They reacquired and cancelled 12K shares at \$2.4 each. Journalize.

# Dividends

- Portion of company's RE paid out to stockholders
- Not legally required
- 2 types:
  - Cash dividends (paying out cash)
  - Stock dividends (paying out company stock)

# 3 Key Dividend Events

- Declaration date
  - Approved by board of directors
  - Dividends payable (liability) journalized
- Record Date
  - Eligible shareholders for dividend are identified
  - No accounting entry
- Payment Date
  - Actual paying out of dividend journalized



# Cash Dividends Journal Entries

- Declaration date
  - Dr Dividends Declared (-SE), Cr Dividends Payable
- Record date
  - No journal entry
- Payment date
  - Dr Dividends Payable, Cr Cash

# Cash Dividends Example

- Ex. 19) Apple declared a \$1.45 per share dividend on Feb 1 to be paid on Feb 24 for eligible shareholders recognized on Feb 12. Apple has 2.4 M shares outstanding. Journalize.

# Stock Dividends

- Increase number of shares outstanding
- Shareholders retain same % ownership of company
- Show management confidence in company future performance
- Small stock dividend
  - Distribution of shares less than 20-25%
  - Recorded at share market value
  - Focus of class

# Stock Dividends Journal Entries

- Declaration date
  - Dr Stock Dividends Declared (-SE), Cr Common Stock Dividends Distributable (+SE)
- Record date
  - No journal entries
- Payment date
  - Dr Common Stock Dividends Distributable, Cr Common Shares
- Share price on declaration date is used

# Stock Dividends Example

- Ex. 20) Apple declares a 15% stock dividend on Sept 3 to eligible shareholders on Sept 18, to be paid on Sept 29. The share price on Sept 3 is \$34, on Sept 18 \$42, on Sept 29 \$37. Apple has 2.1M common shares outstanding and \$14M balance in common shares. Journalize.

# Stock Splits

- Outstanding shares increased by a set ratio
- Stock price will decrease by same ratio
- Total common shares outstanding will stay the same
- Shares get more affordable
- People get more, but smaller pieces of same pie
- No journal entries

# Financial Statement Ratios

- Earnings per share =  $\text{NI} - \text{preferred dividends} / \text{avg \# of outstanding shares}$ 
  - Measuring capacity to generate NI per each common share
- Dividends payout =  $\text{cash dividends declared} / \text{NI}$ 
  - High ratios preferred by dividend seeking investors
- Dividend yield =  $\text{dividends declared per share} / \text{market price per share}$ 
  - Investor's return on share investments

# Statement of Cash Flows



# Cash Flow Basics

- Needed to invest, cover liabilities, take advantage of market opportunities
- Statement of cash flows split into 3 activities:
  - Operating (provision of business goods/services)
  - Investing (acquiring/selling assets for long term)
  - Financing (borrowing/lending money, dividends)
- Determining total cash flows in operating activities:
  - Indirect method -> start with NI then get rid of non-cash items (focus of class)

## Classification of Cash Flows

Activity	Cash Inflows	Cash Outflows
Operating	Cash received from revenues	Cash paid for expenses
Investing	Sale of plant assets Sale of investments Collection of loans	Purchase of plant assets Purchase of investments Loans to others
Financing	Issuing shares Issuing Bonds and notes	Dividend Payments Share Repurchases Repayment of debt

# Cash Flows From Operating Activities

## Add Back

- Depreciation Expense
- Increase in deferred taxes
- Decrease in accounts receivable
- Decrease in inventories
- Decrease in prepaid expense
- Increase in payables
- Loss on disposal

## Start with NI

## Subtract

- Decrease in deferred tax
- Increase in accounts receivable
- Increase in inventories
- Increase in prepaid expense
- Decrease in payables
- Gain on disposal

# Cash Flows from Investing and Financing

- Recorded on transactional basis, unlike operating activities
- Easier than calculating operating cash flows
- For investing:
  - Sum proceeds from disposals/sales
  - Subtract acquisitions and purchases
- For financing:
  - Sum values from debt proceeds/issuance of stock
  - Subtract debt, interest and dividend payments



















