

Business Management & Strategy

Assets = Liabilities + Equity **OR** Equity = Assets - Liabilities (Used for Balance Sheets)

Gross Profit Margin = Gross Profit/Net Sales (Used for Income Statements)

Net Profit Margin = Net Income/ Net Sales (Used for Income Statements)

Net Income = Revenues - Expenses (Used for Income Statements)

Operating Profit Margin = Operating Profit/Net Sales

Debt Ratio = Total Liabilities/Total Assets

Return on Investment (ROI) = Value of Investment- Cost of Investment/ Cost of Investment

Cost-Benefit Ratio = Value of projected or received benefits/ Cost

Break-Even point = Cost/Savings x Time**(Time usually calculated in 12 months)

Range = Highest score - Lowest score

Workforce Planning and Employment

Annualized employee turnover percentage = # of separations for year/ average # of employees per month*

* Average # of employees per month = Total # employees for the entire year/12 months

Yield Ratio (Used at various stages in recruitment); Examples include:

Female Applicants/ Total Applicants **or** Offers Accepted/Offers Extended

Human Resource Development

Cost per trainee = Total cost of training / # of people trained

Compensation and Benefits

Range Spread = Maximum - Minimum/Minimum

Compa-Ratio = Base Salary / Midpoint of Salary Range x 100

*****Note:** Lead market if greater than 100%; Lag market if less than 100%

Weighted Average (weighted mean) = Total of all employees salary/total # of incumbents

Unweighted Average (raw average) = Total of all employees salary/# of incumbents at each salary

Adjusted Rate of Pay = Total straight time/ all hours worked

(Example Employee earns \$20/hour and worked 43 hours in the week. 43 hours x \$20 = \$860

Employee receives shift premium of 10% of base rate; shift differential = 10% of \$20 = \$2 x 43 hours = \$86

\$860 + \$86 = \$946

Total straight time pay (\$946)/ all hours worked (43) = \$22 (rate of pay)

*** **Note** a question may insert bonus pay in place of shift premium. The same formula applies-- you must calculate the total straight time in terms of total dollars earned then divide by the total hours worked to determine hourly rate of pay***

Contribution to Excess Deferral Plan = Contribution (Without Regard to Cap) - Allowed Qualified Plan Contribution

** For Example, assume a 6% Contribution. The IRS has \$250,000 salary cap. Executive earns \$300,000

Calculate the Allowed Qualified Plan Contribution = Max salary x % Contribution

In this case \$250,000 x 6% = \$15,000

Calculate the Contribution (Without Regard to Cap) = Executive Salary x % Contribution

In this case \$300,000 x 6% = \$18,000

\$18,000 - \$15,000 = \$3,000; this is the **amount that can be contributed to the Excess deferral plan**

Taxes on Excess Group Life Insurance = amount greater than \$50,000 x rate per \$1,000 of benefit (based on age)

For example, employer provides \$100,000 in Group Life Insurance and the employee is between the ages of 45-49

*****Note** If there is a question, there will be an IRS Imputed Income Table included

Monthly rate per \$1,000 of Benefit for employees between the ages of 45-49 is 0.15

$\$100,000 - \$50,000 = \$50,000$ (Amount greater than \$50,000)

$50,000/1,000 = 50$

50×0.15 (IRS rate for this age group) = \$90

\$90 is the imputed income on the employee's end of year W-2

Employee and Labor Relations

Absence Formula = Worker days lost in month through absence/Average # of employees x # of workdays per month

*** (Unlikely, will need to remember for exam) ***

Cost per hour paid or worked = Cost of Labor/ # of hours paid or worked (Used to determine a contract's cost)

Risk Management

Incident Rate = # of OSHA recordable cases x 200,000/# of employee labor hours worked

(*Incident Rate formulas use 200,000 as the basis for 100 full-time employees working 40 hours per week, 50 weeks per year)

For example, ABC company 15 injuries and illnesses and 400,000 hours worked

$15 \times 200,000/400,000 = 7.5$; IR = 7.5

DART* Rate = Total # of DART incidents x 200,000/# of employee hours worked

* DART = Days Away/Restricted or Transfer Rate

(Note, a question may state there were 15 incidents but that 10 resulted in lost time from work. Therefore, to calculate the DART rate you will use 10 (not 15))