Review Session

Overview:

- Comprehensive
- 3 hours
- 2 sections
- Each section will have 8 numbered parts, of which you may skip one. This means that we will drop the worst part from each of the two sections.

Overview:

- Each part will include information you will use to answer the questions in that part, if you need information from a previous part, that will be indicated.
- These questions will be indicated with letters: (a) if there is one, (b) if there is a second, and so forth.
- The exam is closed book and notes.

Section 2 - What we've covered since the midterm

Economics of agency

- The following issues will be covered:
    - Separation of ownership and control
    - The nature of the principal agent problem.
    - Risk aversion and incentives

Economics of agency

- These will be questions about the concepts from:
    - Incentives and Compensation and
    - Examples

Section 2 Part 2: Transfer Pricing

- Vik-Giger
- Why do we need transfer prices?
    - Overconsumption of common resources.
    - Transmit information and incentives within a decentralized firm.

Cost Allocation

- The key concept here is that cost allocations (including transfer prices) function as 'Pigouvian' taxes
  - Taxes reduce the taxed activity
  - Negative taxes are subsidies, and increase the subsidised activity

Absorption Costing

- Navisky, Aspen, Kothari problems (don't worry, I won't ask all of them)

Navisky notes:

- Application of fixed overhead

- You can think of the formula for fixed manufacturing overhead applied to cost of goods sold as:

$$FMO = OHR \times Q_{sold}$$

- OHR is the overhead rate: $OHR = TOH/Q_{made}$
- OH is the total overhead, 2.7 million in this case
- Q_{made} is the number of units produced, and Q_{sold} is the number of units sold.

Navisky notes:

- The cost per unit of inventory is the sum of the overhead applied to the inventory and the variable manufacturing costs

- $VC/unit = 380$

- The fixed overhead applied to each unit of inventory is just the overhead rate: $OHR = TOH/Q_{made}$

Activity Based Costing

Conceptual understanding of how activity based costing improves on simple absorption costing.

1. More granular information leads to more accurate cost allocations.
2. More accurate allocations provide better information via transfer prices.
3. More accurate allocations connect incentives (a la Pigou) to the actual costs that the firm incurs.

Budgets/Standard Costs/Variances

The only terms you need are the ones used in the following slides. I will cover these with multiple choice questions.

Variance:

Total Variance = Actual Cost - Standard Cost

Disaggregation of direct cost variances

Direct cost (labor and materials) can be disaggregated into Price and Quantity variances using the flexible budget.

Disaggregation of direct cost variances

Total Variance	Actual DM Cost	Flexible Budget	Standard DM Cost
$(Q_a \times P_a) - (P_s \times Q_s)$	$P_a \times Q_a$	$P_s \times Q_a$	$P_s \times Q_s$

Total Variance	Price Variance	Quantity Variance
$(Q_a \times P_a) - (P_s \times Q_s)$	$P_a \times Q_a - P_s \times Q_a$	$P_s \times Q_a - P_s \times Q_s$
$[Q_a(P_a - P_s)] + [P_s(Q_a - Q_s)]$	$Q_a(P_a - P_s)$	$P_s(Q_a - Q_s)$

Disaggregation of overhead cost variances

Total Overhead Variance = Actual Overhead Costs - Overhead Absorbed

$$AOH - (OHR \times SV) = AOH - (OHR \times SV)$$

$2,300,000 - $2,291,600 = $8,400

Interpretation:

- Overhead is 'Underabsorbed', if actual > absorbed
- Overhead is 'Overabsorbed', if actual < absorbed

Disaggregation Overhead Variance

Total Overhead Variance = Actual Overhead - Overhead Absorbed

- Overhead spending variance = Actual overhead - Flexible budget at actual volume
- OSV = AOH - FB@AV
- Overhead efficiency variance = Flexible budget at actual volume - Flexible budget at standard volume
- OEV = FB@AV - FB@SV
- Overhead volume variance = Flexible budget at standard volume - Overhead Absorbed
- OVV = FB@SV - OA

Disaggregation Overhead Variance

TOV	=	AOH			-			OA
OSV	=	AOH	-	FB@AV				
OEV	=			FB@AV	-	FB@SV		
OVV	=					FB@SV	-	OA

More detailed definitions:

TOV =	AOH		-		$OHR{\times}SV$
OSV =	AOH -	FOH+(VOH×AV)			
OEV =		FOH+(VOH×AV)	FOH+(VOH×SV)		
OVV =			FOH+(VOH×SV)		$OHR{\times}SV$

Disaggregation Overhead Variance

- Overhead spending variance: OSV = AOH - FB@AV
  - This is the variance due to change in the cost of the overhead itself.
- Overhead efficiency variance: OEV = FB@AV - FB@SV
  - This is the variance due to differences in how efficiently we used the overhead.
- Overhead volume variance: OVV = FB@SV - OA
  - This is the variance due to the effect of volume on the overhead allocation.