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MID TERM EXAM

[1 1/2 hours, answer all questions, **equal weight**]

1). Consider a simple single employment center city. Where within this city is the *volatility* in the *price* of residential land likely to be the greatest, assuming that such volatility tends to arise from:

a). Expansions and contractions in what people expect the rate of growth of population to be for the city.

b). Rises and falls in the price of oil and gasoline.

Explain your answer with graphs or diagrams.

2). In neighborhood and community retail centers, the anchor supermarket typically pay \$20 rent. Smaller stores, such as pharmacies, cleaners, video rentals pay typically \$30 rent.

In regional centers, the anchors (mostly department stores) typically pay \$2 rents, while smaller stores pay on average rents in the \$40 range.

a). Carefully explain why rents differences exist between stores within centers.

b). Why do you think the rent differential is so much greater in regional malls versus neighborhood/community centers.

3). A newer city has grown rapidly over the years with a modern housing stock that has almost a constant FAR of .5 from its center to the edge at 20 miles. A regression equation has estimated the following relationship for the price/sqft of housing floor area:

$$P = 120 - 2t - 2FAR$$

where: P: price/sqft of floor area

FAR: floor/land area ratio

t: distance from the CBD

If construction costs are 80/sqft, what is a square foot of vacant land potentially worth at the center?

Since there is no vacant land currently, would it be profitable to redevelop sites at the center? If so, how profitable is redevelopment?

Is redevelopment profitable in some of the older suburbs where $t=10$?

4). You are contemplating buying property in one of two areas of Chicago: the downtown CBD and the region's major suburban node. You gather the following information.

	<u>CBD</u>	<u>Suburb</u>
Net Rent	\$30	\$35
Development costs	\$45	\$30
Average commute time	50min	20min

Workers in each area use roughly 200 square feet for offices and average Chicago wages are \$100,000. Your partner argues that the CBD will have significant rent rises ahead since it is below replacement costs and you should buy there. Is she correct? Which area is likely to grow in terms of jobs? Which will have the best rent increase? Carefully explain why?