COURSE 101. QUIZ ANSWER GUIDE

Purpose

There are two ways that as a moderator you can use the 101. Quiz Answer Guide

1) **After the participants have taken the quiz you can use this answer guide and take them through the answers**

2) **Print a copy for each participant a give them a copy after they have taken the quiz**

This should be done in conjunction the playing with playing the flash card set

21. 101. Quiz No. 1
Questions and Answers

101. QUIZ No. 1 Questions and Answers

Q1.
Using the following information calculate the Cap Rate

Net Operating Income (NOI): $200,000 per year
Sale Price: $4,000,000

Start by writing down the formula for calculating the Cap Rate

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Answer

$$\text{Cap Rate} = \frac{\text{Net Operating Income (NOI)} \times 100}{\text{Sale Price}}$$

$$= \frac{\$200{,}000 \times 100}{\$4{,}000{,}000}$$

$$= 5.00\%$$

Q2.

Put an "X" against the expenses that should be removed from the Income & Expense Statement when using the Cap Rate to determine the property value.

Insurance
Property taxes
Upgrading the elevator
Elevator service contract
Landscaping service contract
Mortgage Interest costs
Security services
Painting 40% of the building exterior
Property management

Answer

Put a "X" against the expenses that should be removed from the Income & Expense Statement.

Insurance
Property taxes
Upgrading the elevator X
Elevator service contract
Landscaping service contract
Mortgage Interest costs X
Security services
Painting 40% of the building exterior X
Property management

Q3

Calculate the Return on Equity (ROE) or Cash on Cash Return using the following information

Net Operating Income (NOI): $125,000 per year
Debt Service: $75,000 per year
Purchase Price: $1,700,000?
Mortgage: $1,000,000

Start by writing down the formula

Answer

Return on Equity (ROE) = $\dfrac{\text{(NOI – Debt Service) x 100}}{\text{(Price – Mortgage)}}$

= $\dfrac{\text{Cash Flow before Tax}}{\text{Cash invested}}$

= Cash on Cash

= $\dfrac{\text{(\$125,000 – 75,000) x 100}}{\text{(\$1,700,000 – 1,000,000)}}$

= 7.14% Return on Equity

Q4.
From a BUYERS perspective which do they prefer?
A high or a lower Cap Rate?

Circle your selection

Answer

From a BUYERS perspective which do they prefer?

A high or a lower Cap Rate?

Circle your selection

Buyers like a high Cap Rate because this means they pay less for the property compared to a low Cap Rate

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Q5.
Using the following information calculate the:

1) **Loan to Value Ratio(LTV)**

2) **Debt Service Coverage Ratio (DSCR)**

Purchase Price: $2,500,000
First Mortgage: $1,500,000
Net Operating Income (NOI): $130,000 per Yr.
Debt Service: $100,000 per Yr. Annual (P +I) payment

Start by writing down the formulas

Answer

$$\text{Loan to Value Ratio} = \frac{\text{First Mortgage Amount}}{\text{Purchase Price}}$$

$$= \frac{1{,}500{,}000}{2{,}500{,}000}$$

$$= 60\%$$

$$\text{Debt Coverage Ratio} = \frac{\text{Net Operating Income}}{\text{Debt Service}}$$

$$= \frac{130{,}000}{100{,}000} = 1.30$$

Q6.
Calculate the Base Rent per Sq. Ft per Yr. for an office building using the following information:

Base Rent: $200,000 per Yr. based on the "Rentable Area"
Usable Area: 9,000 Sq. Ft. This is the area occupied by the tenant.
Add on Factor or Gross Up Factor: 15%

Answer

Rentable Area = Usable Area x Add on Factor

= 9,000 Sq. Ft x 9,000 x 15%

Or 9,000 Sq. Ft x 1.15

= 10,350 Sq. Ft

Base Rent = <u>$200,000</u>
10,350 Sq. Ft

=$19.32 per Sq. Ft per Yr

Q7.
The lower the Cap Rate the higher or lower the property value?
Circle you selection

The lower the Cap Rate the higher or lower the property value?
Circle you answer

A low Cap Rate creates a higher property value than a low Cap rate which is illustrated in the example below.

Net Operating Income: $100,000

Value = <u>Net Operating Income x 100</u>
Cap Rate

<u>$100,000 x 100</u> = $2,000,000 **<u>$100,000 x 100</u> = $1,000,000**
5% **10%**

Q8.

The Cap Rate is an excellent approach to valuing Property A below which has the following lease arrangement. True or False?

Circle your selection

Answer

The Cap Rate is an excellent approach to valuing Property A which has the following lease arrangement. True or False

The Cap Rate is not a good way to value an income property where the lease increases in steps like Property A.

The best approach is to use discounted cash flow analysis which take into account the changing income over time.

Q9.

A tenant is entering into a Triple Net Rent (NNN) and has offered the tenant three months free rent.

The tenant interprets this to mean that during the Free Rent period of three months that there are no payments made to the landlord.

Based on the typical arrangements for free rent is the tenant's assumption correct?

Yes or No
Circle your answer

Answer
With a Triple Net lease if the landlord offers a free rent period the free rent refers only to the Base Rent. The landlord wants to get paid for the "Additional Rent" to cover the operating expenses such as taxes, insurance and maintenance as defined in the lease.

Q10

When calculating the Cap Rate for a commercial building leasing fees should be excluded from the Income & Expenses statement when using a Cap Rate to determine the value.

True False

Answer
When calculating the Cap Rate for a commercial building leasing fees should be excluded from the Income & Expenses statement when using a Cap Rate to determine the property value.

True False

Non recurring expenses such as one off leasing fees should be excluded from the the calculation of the Net Operating Income (NOI) when using a Cap Rate to calulate the value of the property

Q11

You are considering buying a building which has a Net Operating Income (NOI) of $240,000

If you wish to buy the property for a 6.00% Cap Rate, how much would you pay for the property?

Answer

$$\text{Purchase Price} = \frac{\text{Net Operating Income (NOI)}}{\text{Cap Rate (\%)}}$$

$$= \frac{\$240{,}000 \times 100}{6.00\%}$$

$$= \$4{,}000{,}000$$

Q12

The Loan to Value Ratio (LTV):

a) __ Always determines the loan amount
b) __ Determines the maximum loan subject to the Debt Service or Coverage Ratio
c) __ Is never used by a commercial lender because they always use the Debt Service or Coverage Ratio to determine the loan amount to determine the loan amount

Tick your answer

The Loan to Value Ratio (LTV):

a) __ Always determines the loan amount
b) ✓ Determines the maximum loan subject to the Debt Service Coverage Ratio
c) __ Is never used by a commercial lender because they always use the Debt Service or Coverage Ratio to determine the loan amount

The Loan to Value Ratio sets the maximum loan amount but lenders will use the Debt Service Coverage Ratio if it produces a loan amount that is less than the amount determined by the Loan to Value Ratio (LTV).

Q13.
Which Debt Service Coverage Ratio provides the highest loan amount?

a) 1.19
b) 1.25
c) 1.3

Tick the correct answer **a)__ b)__ c)__**

Which Debt Service or Coverage Ratio provides the highest loan amount?

a) 1.19 ✓
b) 1.25
c) 1.30

Tick the correct answer a)✓ b)__ c)__

The lower Debt Service Coverage Ratio results in more money being available to make the principal and interest payment.

Q14.
Which Debt Service Coverage Ratio potentially indicates the highest financial risk?

a) 1.31
b) 1.07
c) 1.15
d) 1.20

Tick the correct answer **a)__ b)__ c)__ d)__**

Answer

Which Debt Service or Coverage Ratio potentially indicates the highest financial risk?

a) 1.31
b) 1.07
c) 1.15 ✓
d) 1.20

Tick the correct answer a)__ b)__ c)✓ d)__

The lower the Debt Service Coverage Ratio the higher the investment risk because there is less cash flow available after making the principal and interest payments and the greater risk of a negative cash if revenues decline or expenses increase.

Q15.

A "Triple Net (NNN)" lease means that the tenant pays all of the landlords operating expenses.

True False

Circle your answer

Answer

A "Triple Net (NNN)" lease means that the tenant pays all of the landlords operating expenses. True False

The term Triple Net Lease generally means that the tenant pays the landlord's operating expense such as taxes,insurance and maintenance. However you need to READ the LEASE carefully to see what operating expenses are paid by the tenant and which are paid by the landlord. The term "Triple Net (NNN)" can be misleading.

Q16.

In a multi-tenant office building the landlord usually calculates the rent based on the Usable Area because this is the area occupied by the tenant.

True False

Circle your answer

Answer

In a multi-tenant office building the landlord usually calculates the rent based on the Usable Area because this is the area occupied by the tenant.

True False

The statement is false because office building landlords want the tenant to pay rent for the space they occupy plus pay their proportional share of common area costs and such as the lobby, corridors, common area bathrooms etc.

Q17.

How much would you pay for $130,000 per year forever if wanted a 10% return?

a) __ $1,300,000
b) __ $130,000
c) __ $13,000,000
d) __ None of these
e) __ $13,000

Tick the correct answer

Answer

How much would you pay for $130,000 per year forever if wanted a 10% return?

a) ✓ $1,300,000
b) __ $130,000
c) __ $13,000,000
d) __ None of these
e) __ $13,000

$$\frac{\$130{,}000}{10\%} = \$1{,}300{,}000$$

The 10% is the Cap Rate

Q18.

Which would you rather have?

a) Receive $750,000 today
b) Receive $750,000 in 5 years time

Tick the correct answer **a)__ b)__**

Answer

Which would you rather have?

a) Receive $750,000 today ✓
b) Receive $750,000 in 5 years time

Tick the correct answer **a) ✓ b)__**

You would rather have $750,000 today because it will be worth a lot more than $750,000 in 5 years time if the money is invested and earns interest.

From a risk perspective receiving $750,000 today is less risky than the possibilty of receiving $750,000 in 5 years time.

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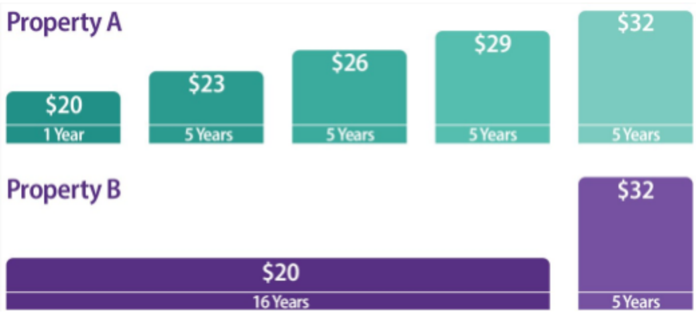
Q19.

The diagram below shows the projected lease rates and renewals for two comparable properties. Which is the most valuable property?

- **a) Property A**
- **b) Property B**

Tick the correct answer   a)__   b)__

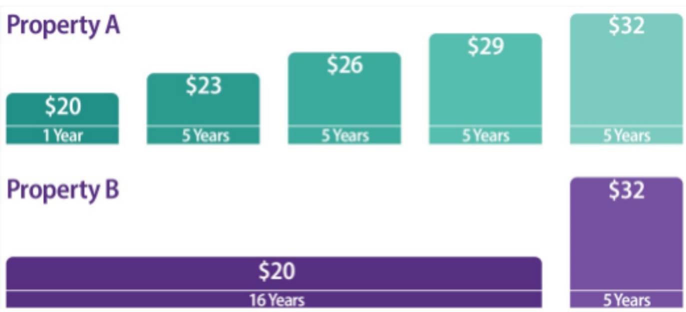


Answer

The diagram below shows the projected lease rates and renewals for two comparable properties. Which is the most valuable property?

- **a) Property A**
- **b) Property B**

Tick the correct answer   a)__   b)__



Answer

Property A will provide the highest return (IRR) and is less risky because the cash flow is increasing at a faster rate because of the rent increases every 5 years after the first year. Sooner is better than later.

Q20.
From a financial perspective which investment provides the:

1) **Highest Return (IRR)** **Investment A or Investment B**

2) **Highest Risk** **Investment A or Investment B**

Circle your answers

Year	Investment A	Investment B
0	<960,000>	<960,000>
1	230,000	320,000
2	250,000	300,000
3	275,000	290,000
4	290,000	275,000
5	300,000	250,000
6	320,000	230,000
Total	**$ 1,665,000**	**$ 1,665,000**

Answer

From a financial perspective which investment provides the:

1) Highest Return (IRR) Investment A or Investment B

2) Highest Risk Investment A or Investment B

Circle your answers

Year	Investment A	Investment B
0	<960,000>	<960,000>
1	230,000	320,000
2	250,000	300,000
3	275,000	290,000
4	290,000	275,000
5	300,000	250,000
6	320,000	230,000
Total	**$ 1,665,000**	**$ 1,665,000**

Internal Rate of Return (IRR)

Investment A: 17.27%

Investment B: 19.79%

Investment B provides the highest financial return and is less risky because the money is coming in faster than Investment A.

Sooner is better than later

Q21.

How would you value this property which consists of two buildings with retail on the ground floor and offices above?

a) Use the income approach such as the Cap Rate or Discounted Cash Flow Analysis approach

b) Use the "Development Analysis or Land Residual approach

Tick the correct answer a)__ b)__

Answer

How would you value this property which consists of two buildings with retail on the ground floor and offices above?

Even though the two properties are income properties the combined property has development potential and can be replaced by a retail/office tower.

a) Use the income approach such as the Cap Rate or Discounted Cash Flow Analysis approach

b) Use the "Development Analysis or Land Residual approach

Tick the correct answer a)__ b)✓

END