## Chapter 3: Property valuation and financial analysis

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Chapter 3: Property valuation and financial analysis

Key Concepts

Critical real estate concepts equaling approximately 14% of the state licensing exam.

- Value
- Methods of estimating value
- Financial Analysis

Key Terms

Fundamental real estate vocabulary likely to appear on the state exam with reference to the quiz questions illustrating its application. See the Real estate glossary on page 331 for the full definitions.

appraisal (q. 45-48)
broker price opinion (BPO) (q. 49)
capitalization approach (q. 51)
capitalization rate (cap rate) (q. 1, 7, 29)
comparable sales (comps) (q. 52)
cost approach (q. 17, 41, 42, 44)
depreciation (q. 38, 39)
economic life (q. 6, 37)
economic obsolescence (q. 22, 50)
effective age (q. 53)
elements of value (q. 8, 36)
ethics (q. 35)
fair market value (FMV) (q. 54)
financial analysis (q. 30)
functional obsolescence (q. 21, 23, 25)
gross rent multiplier (GRM) (q. 3, 9, 28)
highest and best use (q. 32, 33)
income approach (q. 26, 27)
influences on value (q. 34)
loan-to-value ratio (LTV) (q. 55)
market comparison (q. 10, 14)
narrative report (q. 15, 24)
opportunity cost (q. 40)
physical life (q. 56)
principles of value (q. 2, 4, 5, 19, 20, 31)
reconciliation (q. 18)
replacement cost (q. 16, 43)
return on investment (ROI) (q. 57)
site valuation (q. 13)
value (q. 11, 12)
Value

**Value** is defined as the worth of something to someone at a given time. In real estate, you can then apply modifiers to the basic word, therefore creating **fair market value (FMV)**, which is the most commonly sought value conclusion. **FMV** refers to the price a reasonable, unpressured buyer and seller would agree to for property on the open market, both having reasonable knowledge of the relevant facts.

There are several other variations on the root principle of value, such as:

- investment value;
- insurance value; and
- value in use.

Value is impacted by numerous factors, known as the **elements of value**. The **elements of value** are:

- Demand, the number of buyers for the property;
- Utility, the property’s possible uses;
- Scarcity, the availability of similar properties; and
- Transferability, the seller’s ability to transfer good title to a buyer clear of all encumbrances itemized in a title insurance policy.

These elements of value can be easily memorized using the acronym “**DUST**.”

Further, these elements work together to create the concept of value. When there is a reduced demand, price goes down. When a specific property has an increased utility, a usage greater than a similar property, its value increases. Properties which are scarce, such as beach front or golf course frontage, will find the value increase. Alternatively, if a property cannot be transferred, as is the case with a **clouded title**, the value of the property decreases.

There are four major **influences on value** which are constantly changing:

- Physical, the property’s proximity to commercial amenities, access to transportation, the availability of freeways, beaches, lakes, hills, etc.;
- Economic, rents in the area, vacancies and the percentage of homeownership;
- Government, property taxes, zoning and building codes; and
- Social.

These influences on value can be easily memorized using the acronym “**PEGS**.”

Consider the impact of an earthquake or beach erosion. Job creation or increases in income can affect local real estate prices. Government policy, whether local, state, or federal, can influence value.
Consider what changes in zoning, highway construction, or federal fiscal and monetary policy can have on local real estate. Finally, there are social changes that impact property values. Consider what a high crime rate does to value or an improvement in local school scores.

Several economic concepts are used in the appraisal of real estate. These principles are referred to as principles of appraisal valuation and include:

- **The principle of supply and demand**: For appraisal purposes, the principle of supply and demand holds that once the supply of available homes decrease, the value of homes increase since more people are demanding the available homes. This principle correlates to the density of the population and its level of income.

- **The principle of change**: The principle of change holds that property is constantly in a state of change. The change a property goes through is seen in its life-cycle. The life-cycle of a property has four stages: development, stability, decline and renewal.
  - Development of the property includes the subdivision of lots, improvements constructed and the start of a neighborhood community.
  - During the stability stage of a property, owners become comfortable with their homes and not much is changed or improved. Maintenance is generally excellent during this period.
  - The decline stage is marked by owners moving out and renting their properties. During this stage, properties begin to deteriorate, lower social or economic groups move into the community and larger homes are converted into multiple family use.
  - In the renewal phase buyers see an opportunity to increase their equity by purchasing the rundown homes and bringing them up to current market standards.

- **The principle of conformity**: The principle of conformity holds that when similarity of improvements is maintained in a neighborhood, the maximum value of a property can be realized on a sale. Zoning regulations and conditions, covenants and restrictions (CC&Rs) tend to protect homeowners by narrowing the uses and excluding nonconforming uses of the property.

- **The principle of regression**: The principle of regression holds that the value of the best property in a neighborhood will be adversely affected by the value of other properties in the neighborhood.

- **The principle of progression**: The principle of progression is the opposite of the principle of regression, holding that a smaller and lesser maintained property in a well-kept neighborhood will sell for more than if the home were in an area of comparable properties.

- **The principle of contribution**: The principle of contribution holds that the value of one component (improvement) is measured in terms of its contribution to the value of the whole property rather than its cost.

- **The principle of substitution**: The principle of substitution holds that a buyer will not pay more for a property if it will cost less to buy a similar property of equal desirability.

### Methods of estimating value

An appraisal is an individual’s opinion or estimate of a property’s value on a specific date, reduced to writing in an appraisal report.
The appraisal report contains data collected and analyzed by the appraiser which substantiates the appraiser’s opinion of the property’s value. The value of an income producing property, given as a dollar amount, is the present worth to an owner of the future flow of net operating income (NOI) generated by the property. The appraisal process consists of four steps:

• identifying and defining the appraisal effort to be undertaken by the appraiser;
• data collection, including both general data on the area surrounding the property, and specific data on the improvements and property lot;
• applying the data; and
• determining the value of the property.

There are three approaches to estimate value in real estate appraisal:

• market comparison (also known as sales comparison), which is most appropriate for single family residences (SFRs) and the basis of the comparative market analysis that is used by real estate sales people;
• cost approach, used for special use properties such as churches, schools, and public buildings; and
• income approach, valid for properties that generate rental income.

While each of the approaches has a unique methodology, they all work on the principle of substitution. There are several other principles which assist appraisers in developing the estimate of value.

The market comparison approach is the most commonly used to establish the FMV of real estate. Applying the market comparison approach, the appraiser looks at the current selling prices of similar properties to help establish the comparable value of the property appraised. Adjustments are made for any differences in the similar properties, such as their location, obsolescence, lot size and condition of the properties.

To produce a more reliable appraisal, it is better to gather data on as many comparable sales, frequently called “comps,” as are available. Then compare each against the property being appraised for their similarities.

Appraisers setting value using the cost approach calculate the current construction cost to replace the improvements. From the replacement cost, appraisers subtract their estimate of the accrued depreciation of the existing improvements due to obsolescence and deterioration to get the current replacement value of the improvements.

Added to this is the value of the land as though it was vacant. Thus, the appraised market value under the cost approach is the result of totaling the value of the lot plus the cost to replace the improvements minus obsolescence and physical deterioration (depreciation).

The income approach has two methods to arrive at a value determination:

• the gross rent multiplier – uses the potential or gross rent multiplied by a gross rent multiplier (GRM) to determine the value; and
• the capitalization method – determines the property’s value based on the property’s future income and operating expenses. This method uses the net operating income (NOI) and divides that number by a capitalization rate (cap rate) to determine the value.

Property appraised using the income approach includes:
• apartments;
• offices;
• industrial buildings;
• commercial units; and
• other income-producing property.

The first step to establish value using the capitalization approach is to determine the property’s **effective gross income**. A property’s effective gross income is its gross income minus vacancies and collection losses.

The second step is to deduct **operating expenses** from the effective gross income to determine the property’s **net operating income (NOI)**. Operating expenses that vary, such as utilities and repairs, are called **variable costs**. Operating costs that remain constant, such as property taxes, security services and insurance, are called **fixed costs**.

The third step is to mathematically divide the property’s NOI by the appropriate **cap rate**. The cap rate is comprised of a prudent investor’s expected annual **rate of return** on monies invested in this type of property (adjusted for inflation and risk premiums), and a **rate of recovery** of their invested monies allocated to the improvements, also called **depreciation**.

The methods to calculate a cap rate are:

• the band of investment
• the summation method, and
• market comparison

Finally, the FMV of the property is determined by dividing the NOI by the cap rate.

The **appraisal report** is the documentation of the appraiser’s findings. The types of **appraisal reports** include:

• **short form** – a filled-in form using checks and explanations;
• **letter form** – a brief written report; and
• **narrative report** – an extensive written report.

**Financial Analysis**

To analyze a rental property’s income and expense history under the **income approach**, the appraiser begins with an **Annual Property Operating Data sheet (APOD)**. The APOD breaks down both

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**Exam Jargon**

Specialized real estate terminology related to property valuation and financial analysis. See the Real estate glossary on page 331 for the full definitions.

| absorption rate | ad valorem tax | vacancy rate |
in dollar amounts and as percentages the income and specific operating expenses of the subject property so as to determine its profitability. From these facts, an appraiser then applies formulas to arrive at a current property value.

**SAMPLE QUESTIONS**

1. Which of the following statement regarding capitalization rates is least correct?
   a. Lowering the cap rate increases the value of the property.
   b. Increasing the cap rate lowers the value of the property.
   c. Increasing the risk of loss increases the cap rate.
   d. Decreasing the risk of loss increases the cap rate.

2. Loss of value of an expensive home due to the close proximity of lower-priced homes in a neighborhood is known as:
   a. regression.
   b. progression.
   c. functional obsolescence.
   d. physical depreciation.

3. An apartment building produces a monthly rent of $16,000. A similar property with monthly rents of $21,000 recently sold for $2,940,000. Using this as the only data, the appraiser would say that the first apartment building is worth:
   a. $2,940,000.
   b. $2,240,000.
   c. $2,936,000.
   d. $2,475,000.

4. Demand has no effect on value unless there is also:
   a. a need for the thing in demand.
   b. an adequate supply of the thing in demand.
   c. scarcity of the thing in demand.
   d. purchasing power which enables the ability to buy the thing in demand.

5. The vacancy rate of an apartment building under normal competitive conditions is primarily the result of:
   a. employment fluctuations.
   b. housing supply and demand in the area.
   c. the cost of construction and the cost of money.
   d. taxes and insurance.

6. The period for which a property can show a return attributable to the improvements is known as the property’s:
   a. economic life.
   b. chronological life.
   c. effective age.
   d. depreciation life.

7. A property is valued at $300,000 with a 5% capitalization rate (cap rate). If the prospective buyer wants an 8% return on their money, the property’s valued would be:
   a. $187,500.
   b. $270,000.
   c. $480,000.
   d. $420,000.

8. The elements of value do not include:
   a. cost and age.
   b. scarcity and transferability.
b. utility and demand.  
d. demand and scarcity.

9. Each unit in a duplex rents for $1,000 per month. With a price of $240,000, the monthly gross multiplier is:
   a. 10.  
b. 120.  
c. 240.  
d. 20.

10. In using the market comparison approach in appraising a single family residence (SFR), comparisons should be made based on:
    a. gross multipliers.  
b. the total cubic footage of the property.  
c. the location of the property.  
d. the entire property.

11. The relationship between the thing desired and the potential purchaser could be described as:
    a. value.  
b. the present worth amortized.  
c. depreciation.  
d. cost.

12. Which of the following statements does not define value?
    a. A relationship between demand for something and the supply of that same product.  
b. The ability of one commodity to command other commodities in exchange.  
c. The price an unreasonable, pressured buyer would offer for a property.  
d. The present worth of future benefits.

13. All of these are good reasons for making a separate site valuation, except:
    a. to apply a residual technique.  
b. to determine building obsolescence.  
c. for taxation purposes.  
d. to apply the gross rent multiplier (GRM) technique.

14. The most common approach used by an appraiser in the appraisal of a single family residence (SFR) is:
    a. replacement cost.  
b. reproduction cost.  
c. market comparison.  
d. capitalization.

15. The narrative form of an appraiser's report includes all the following except:
    a. a description of the property.  
b. the neighborhood amenities.  
c. the appraiser's qualifications.  
d. the financial terms of the sale.

16. An appraiser describes "replacement cost" as:
    a. the original cost to build the structure.  
b. the current cost to build a replica of the original structure.  
c. the current cost to build a structure of similar utility using modern methods and materials.  
d. the current cost to build a structure representing the highest and best use of the site.

17. Restoring a property to a satisfactory condition without changing the floor plan, form, or style of the building is known as:
    a. reproduction.  
b. replacement.  
c. remodeling.  
d. rehabilitation.

18. To arrive at a final estimate of value secured under each of the three appraisal approaches, an appraiser:
a. averages the estimates.
b. uses the lowest value.
c. uses the highest value.
d. explains why or why not the other approaches were not used, then chooses the approach the appraiser believes to be the most appropriate.

19. When an appraiser relies on the principle of substitution, they assume that one property may be substituted for another in terms of all of the below, except:
   a. income.     c. structural design.
   b. nostalgic significance.  d. use.

20. The premise that no prudent person would pay more for a parcel of real property than the price of a reasonably close alternative which is available without undue delay refers to the principle of:
   a. balance.     c. substitution.
   b. contribution.  d. anticipation.

21. Which of the following is not an example of functional obsolescence:
   a. a swimming pool in cold climate.     c. an old kitchen.
   b. proximity of obnoxious nuisances.  d. a one car garage.

22. Which of these most nearly refers to a loss in value due to economic obsolescence:
   a. an architectural design which is out of style.
   b. a zoning change.
   c. improper maintenance of the property.
   d. an increased demand for more luxurious units.

23. Which of these factors does not contribute to obsolescence?

24. Which of the following appraisal reports is the most detailed?

25. The ultimate test to determine the functional utility of a property is the:
   a. property’s maintenance costs.
   b. property’s marketability.
   c. building codes controlling the property’s use.
   d. zoning laws where the property is located.

26. Which of the following does a property owner not show as an expense?
   a. management fees.     c. utilities.
   b. depreciation.  d. property taxes.

27. In using the capitalization process, which of the following cannot be deducted to determine the net income?
   a. Electricity.     c. Management.

28. The gross rent multiplier (GRM) is calculated by dividing:
   a. gross monthly rents by market value.     c. net monthly rents by market value.
b. gross monthly rents by selling price.  
d. sales price by gross monthly rents.

29. To calculate a capitalization rate (cap rate), the appraiser uses which of the following methods:
   a. market comparison.  
   c. summation.
   b. band of investment.  
   d. Any of the above.

30. An analysis of rental income does not determine the income’s:
   a. durability.  
   c. quality.
   b. quantity.  
   d. suitability for reinvestment.

31. John is considering an extensive modernization program for an older apartment building he owns. His decision should give most emphasis to:
   a. actual cost.  
   c. potential increase in rents.
   b. history of vacancy.  
   d. effect on the net income.

32. The term “highest and best use” can best be defined as:
   a. the use that produces the biggest building.
   b. the use that produces the highest building.
   c. the use that produces the greatest gross income.
   d. the use that creates the greatest net return.

33. An appraiser uses a site analysis to determine the:
   a. highest and best use of a property.
   b. appropriate zoning designation for a property.
   c. type of soil under an improved property.
   d. comparable values of similar properties.

34. Which of the following is not a force that influences value?
   a. Economic.  
   c. Demand.
   b. Social.  
   d. Physical.

35. Which of the following is ethical for an appraiser to do?
   a. Establish a minimum value prior to accepting the assignment.
   b. Use other than accepted methodology in an appraisal assignment.
   c. Base the appraisal fee as a percentage of property value.
   d. Appraise a property in which the appraiser has an interest, provided they first disclose their interest in the property.

36. All of the following are essential elements of value, except:
   a. anticipation.  
   c. scarcity.
   b. demand.  
   d. utility.

37. When comparing the economic life and the physical life of an improvement:
   a. economic life is shorter.
   b. economic life is the same as the physical life.
   c. economic life is longer.
   d. physical life is shorter.

38. An appraiser defines depreciation as:
   a. economic obsolescence.  
   c. wear and tear of the improvements.
b. loss in value from any cause.  
d. recapture that has been realized.

39. To depreciate real estate, it needs to be:

a. free of debt.  
c. improved.

b. encumbered.  
d. 1,000 square feet or larger.

40. Which of the following is a cost associated with home ownership:

a. amenity value.

b. loss in value as a result of adverse zoning.

c. loss of interest on owner’s equity.

d. improvement appreciation.

41. Which of the following approaches to valuation yields the highest estimate of value?

a. market comparison.  
c. substitution.

b. reproduction.  
d. comparable sales.

42. When appraising a special purpose property, an appraiser uses the:

a. cost approach.  
c. market data approach.

b. capitalization method.  
d. land residual approach.

43. To calculate replacement cost, compute the cost to replace:

a. an equally desirable property with the same utility value.

b. the identical structure using the original materials.

c. the identical structure using modern materials.

b. the most economical structure having the same utility value.

44. Which of the following is not a part of the cost approach appraisal method?

a. Unit-in-place.  
c. Quantity survey.

b. Capitalization.  
d. Index method.

45. Appraisers attempt to estimate the value of real estate. The value is:

a. derived from an income analysis.

b. based solely on the reproduction cost.

c. projected from the original cost.

b. based on an analysis of facts as of a specified date.

46. When conducting an appraisal, an appraiser considers all the following except:

a. the definition of value.  
c. the assessed value of a property.

b. the highest and best use of a property.  
d. the legal description of a property.

47. The first step in the appraisal process is to:

a. set the appraisal fee.  
c. define the problem.

b. gather data.  
d. analyze data.

48. An appraisal is made as of a given date to indicate:

a. when the appraiser inspected the property.

b. the loan balance at the time of the appraisal.

c. the market condition at the time the appraisal was completed.

d. the true age of the property.

49. Based on recent comparable sales, an agent’s opinion of a property’s fair market value (FMV) is referred to as a(n):

a. broker price opinion (BPO).  
c. appraisal.
b. comp. d. home inspection report.

50. The statement “more buildings are torn down than wear out” is an illustration of:
   a. physical deterioration. c. economic obsolescence.
   b. functional obsolescence. d. accelerated depreciation.

51. The capitalization method of the income approach determines:
   a. the value of a property based on its net operating income (NOI).
   b. the effective interest rate on the debt encumbering the property.
   c. the value of the property based on its gross operating income.
   d. the property owner’s net worth.

52. When comparable sales are unavailable or inadequate and a property generates no income, an appraiser would likely use the:
   a. capitalization approach. c. cost approach.
   b. gross multiplier approach. d. sales comparison approach.

53. When a residence has a physical age of 20 years, but the appraiser notes the building has the appearance of being only 10 years old, the appraiser is referring to:
   a. effective age. c. actual age.
   b. economic life. d. progressive age.

54. All of the following are included in the laws governing the government power of eminent domain, except:
   a. the right of the government to take property from the owner for a legitimate public use.
   b. a condemnation action in court.
   c. compensation at fair market value (FMV).
   d. the exercise of zoning authority.

55. The loan-to-value ratio (LTV) is best described as:
   a. the ratio of the loan to the sales price.
   b. the ratio of the loan to the appraised value of the property.
   c. the loan as a percent of assessed value.
   d. the loan as a percent of interest.

56. Compared to a property’s physical life, economic life is generally:
   a. shorter. c. about the same.
   b. longer. d. varies with property type.

57. Return on investment (ROI) comes in the form of profit, while return of investment comes in the form of:
   a. rents. c. depreciation.
   b. taxes. d. appreciation.

58. When an appraiser values a property under the cost approach, they add the value of the site to the depreciated cost new of improvements. If the value of a site is $150,000, the cost to build a new house is $300,000, the cost to build a new garage is $75,000, and the value of site improvements such as landscaping and the driveway are $75,000, what is the final value of the property under the cost approach when a 20% physical depreciation factor is applied?
   a. $510,000. c. $525,000.
   b. $480,000. d. $375,000.
1. **d** — The capitalization rate (cap rate) is the annual rate of return produced by the operations of an income property. The cap rate is calculated by dividing the net operating income (NOI) by the price asked or offered for income property. Thus, the value moves in the opposite direction of the rate, and a higher risk is rewarded by a higher return.

2. **a** — Regression is the loss of value of nicer homes due to lower-value neighboring properties, progression is the increase in value of lesser homes due to higher-value neighboring properties. Both are elements of the principle of conformity.

3. **b** — When an appraiser is appraising income-producing property, they use the income approach to determine its value. This is accomplished by dividing the value by the rent, yielding the gross rent multiplier (GRM). Then, using the rent of the subject property, the appraiser can determine the value of the subject property.

   \[
   \frac{2,940,000}{21,000} = 140 \\
   140 \times 16,000 = 2,240,000
   \]

4. **d** — Demand requires the ability to pay, called purchasing power.

5. **b** — The vacancy level and rental income will fluctuate as supply increases or demand grows or shrinks.

6. **a** — Economic life is that length of time during which the building remains viable and generates a return on investment.

7. **a** — The value will move in the opposite direction as the capitalization rate (cap rate).

   \[
   \frac{300,000 \times .05}{15,000} = .08 \\
   \frac{15,000}{.08} = 187,500
   \]

8. **a** — The elements of value are Demand, Utility, Scarcity and Transferability (DUST). Therefore, the correct answer, that which is not included as an element of value, is A.

9. **b** — According to the income approach, \( \frac{240,000}{2,000} = 120 \).

10. **d** — Comparisons need to consider all elements of a property and its neighborhood. Therefore, answer selection C is not the best answer, and answer select B is not a measurement that is considered in residential real estate.

11. **a** — Value is the relationship. Cost is simply the price.

12. **c** — The price a reasonable, unpressured buyer would agree to for property on the open market refers to fair market value (FMV).

13. **d** — Answer choice D is the exception. The other choices might be appropriate reasons for a separation of site and improvements, whereas the gross rent multiplier (GRM) approach requires nothing other than calculating the rent multiplied by a multiplier to arrive at a value.

14. **c** — Whenever possible, an appraiser prefers to compare properties.

15. **d** — Financing is not part of the appraisal process. All the other answer selections are part of the narrative report.

16. **c** — Replacement cost is the cost to build a structure of a similar size and utility using modern methods and materials. Reproduction cost is creating something as similar as possible to the original. Both use current costs in the calculation.

17. **d** — Rehabilitation suggests making necessary repairs without changing any other elements of the property. Remodeling would change things to current style and preference.
18. **d** — Note how long this answer selection is. Such an extreme length disproportionate to the other answer selections indicates this is likely the correct answer. Appraisers never average numbers between appraisal methods to arrive at a conclusion.

19. **b** — **Substitution** applies to income, structural design and use. Nostalgic significance is unique to a property or individual and is not considered in the principle of substitution.

20. **c** — Substitution applies.

21. **b** — **Functional obsolescence** applies to aspects within the property. External conditions may represent an **economic obsolescence**.

22. **b** — When demand for a property type changes, it can cause a diminished value for existing buildings. Answer selection **B. a zoning change** is the best answer since it suggests a need for an entirely different property use.

23. **d** — Worn out carpeting is an example of **physical deterioration**, not an obsolescence.

24. **c** — Among the written reports, a **narrative report** is the most detailed and the restricted use is the least.

25. **b** — Marketability is the ultimate test.

26. **b** — Only **depreciation** is a non-cash factor.

27. **d** — Just as finance is not a consideration in appraisal, the debt service would also not apply.

28. **d** — An appraiser can determine the value of a property by determining the gross rent multiplier (GRM). To find this figure, divide the value by the rent.

29. **d** — Any of these can be applied.

30. **d** — As applied to rental income, durability = longevity; quantity = amount of rent; quality = assurance of payment.

31. **d** — **Net income** is the key. Increased rents may generate even higher costs.

32. **d** — Once again, net results are the most relevant. The maximum productivity that generates the greatest net return is the highest and best use.

33. **a** — The purpose of a **site analysis** is to determine the highest and best use of a property.

34. **c** — The forces are: Physical, Economic, Government, and Social (PEGS). Demand is one of the elements of value, not an influence on value.

35. **d** — Disclosure is what makes this answer ethical. Note that none of the other choices are acceptable.

36. **a** — **Anticipation** is a principle. The elements of value are Demand, Utility, Scarcity and Transferability (DUST). Notice it is not unusual to recognize answers for questions embedded in other questions and answer selections.

37. **a** — A building will become economically undesirable long before it is physically unusable.

38. **b** — A loss in value is the best answer. Economic obsolescence happens off the property. Wear and tear is dealt with through proper maintenance.

39. **c** — There must be an improvement to calculate depreciation. Raw land cannot depreciate in value.

40. **c** — The owner’s equity invested into a property cannot earn interest as it does when deposited in the bank.

41. **b** — **Reproduction** is a version of the cost approach. Generally, the cost approach produces the highest estimate of value of all the appraisal methods. The income approach generates the lowest estimate of value.
42. **A special purpose property** will not have sufficient comparable sales to generate a valid analysis nor an income to produce an accurate value. Therefore, the cost approach is the only appropriate approach to determine value.

43. A replacement property is to produce a similar level of utility and be as desirable as the subject property.

44. **Capitalization** is an income approach method. Unit-in-place is a sub-element of construction. The index method is for historic cost valuations. Quantity survey is the most detailed method used by sub-contractors when making bids on projects.

45. This is the best answer. Income analysis and reproduction costs may play a part in the decision but are not exclusively correct. Thus, answer selection D best states how an appraiser estimates value.

46. The assessed value is the county tax assessor’s determination of value for the purposes of calculating property taxes.

47. Like in any similar effort, you must first define what the problem is.

48. The best answer selection here is C. An appraisal is an objective opinion of value based on the market conditions at a specific time.

49. The broker’s price opinion (BPO) is based on comparable sales only.

50. The fact that buildings are torn down that are not yet physically worn out suggests economic obsolescence. Market expectations will drive many of these decisions.

51. The capitalization method uses an income-producing property’s **net operating income (NOI)**. The gross rent multiplier (GRM) method uses the gross rent generated by an income-producing property.

52. The cost approach is the best answer selection. As the property does not generate income, neither answer selection A or B are applicable as they are both based on the income approach. Further, answer selection D may be eliminated as there is insufficient sales data of comparable properties available to make a comparison.

53. Effective age refers to the 10 year old condition of the property. Actual age is 20 years.

54. Eminent domain has no specific relevance to zoning. The consideration that must be paid to the owner is the fair market value (FMV) of the property which is determined as the price a willing buyer would pay to a willing seller when the property has had adequate exposure on the market and neither party is under any duress.

55. The loan-to-value ratio (LTV) reflects the mortgage balance as a percentage of the mortgaged property’s fair market value (FMV). Lenders will loan against the sales price or the value of the property as determined by an appraisal, whichever is lower.

56. A building will become economically undesirable long before it is physically unusable. Note that economic life represents the length of time a building produces a reasonable return. Alternatively, physical life is based on how long the building would remain physically standing. Thus, a property’s economic life is the shorter of the two.

57. While the return on investment is profit, the return of investment is the recuperation of the investment through depreciation.

58. The cost approach requires the appraiser to adjust the house and garage costs, known as the “cost new” of constructed improvements, by a depreciation factor. Thus: $300,000 (house) + $75,000 (garage) = $375,000 x 0.2 (20% depreciation) = $75,000. Then subtract the depreciation amount from the cost new. $375,000 (cost new) - $75,000 (accrued depreciation) = $300,000 (depreciated cost new). Finally, add the various amounts: $150,000 (site) + $300,000 (depreciated construction costs) + $75,000 (site improvements) = $525,000.